RAYVENTORY®

Technology Asset Inventory

RayVentory Data Hub
Connectors 12.4

raynet

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RayVentory Data Hub Connectors RayVentory Data Hub 12.4

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Introduction

This manual describes the parameter used for the connectors which are available in RayVentory Data Hub.

The settings given are example settings or recommended settings. They are in no way applicable to every company infrastructure. The optimal or possible settings for a specific setup will deviate from the settings given in this manual.

Manual Conventions

The following typesetting conventions are used in this manual:

- Cross references to headings or chapters in this manual, or to other manuals, are shown in italics:
  "See *RayVentory Data Hub Adminstration and User Guide* for..."
- Quotations from your computer screen (titles, prompts, and so on) are shown in bold:
  "The **Add Variable** dialog appears."
- Code syntax, file samples, directory paths, entries that you may type on screen, and the like are shown in a monospaced font:
  "The default directory is `C:\RayVentory...`"
- Italics may also be used for emphasis: "This manual is *not* intended..."
- Bold may also be used for inline headings: "**Target**: Indicates a target frame..."

Two note formats are used in this manual

	This is the basic format for giving additional information to the current topic. It can come with four different headings:
	Be aware: This note format contains important information related to your current activity. You should not skip over this text.
	Note: This format is used for items of interest that relate to the current discussion
	Best practice: If there is a best practice approach to the current topic you can decide if you want to follow it, or stick to your own plan.

Tip:
Tips are designed to help you find the easiest and quickest way to work with RayVentory Data Hub.

The second format is for very serious alerts.

Warning
The access token will expire 300 seconds (or 5 minutes) after being generated. It must be regenerated before this.

Alphabetic Connector List

The following chapters will contain an alphabetic list of connectors which are available in RayVentory Data Hub. For each connector, the available parameters and example settings or recommended settings for the parameters will be described.

Keep in mind that this list only contains example parameters. The necessary configurations for a specific infrastructure may deviate from the settings given in this manual.

15Five

Connects to the 15Five REST API to retrieve user data.

> **Note:**
> - A rate limit exists but is not documented yet (see FAQ section here).
> - This connector is currently untested.

Prerequisites

In order to create the API Token that is necessary to authenticate with the 15Five API it is necessary to execute the following steps.

1. Open the **Settings** menu of the 15Five account and click on **Features**.
2. Click on **Integrations**.
3. Click on the **Enable** button located to the right of the **Public API** option.
4. On the **Company API keys** page click on the **Create new key** button.
5. Enter an easily identifiable name for the API key and click on the **Save** button.
6. On the **Company API keys** page verify the API key and the linked access token.
7. Use the access token to link the connector to the 15Five API.

Connector Setup

- Enter the API Token that has been created for the connector into the **API TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

API Token

This parameter should contain the permanent token for the 15Five REST API.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The generation of the token from the 15Five control panel is described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	1000
Example Values	1000

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• email • employeeId • firstName • id • isActive • lastName • location	• String • String • String • String • String • String • String

Acquia Cloud Platform

Connects to the Acquia CloudPlatform REST API to retrieve user and account data. All endpoints that are queried do not use pagination.

Prerequisites

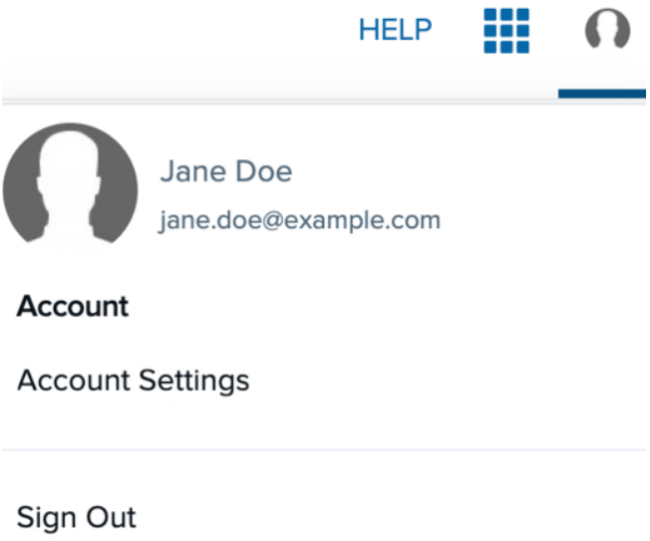
In order to use the Acquia Cloud Platform connector an existing Acquia Cloud Platform account is needed. Furthermore, it is necessary to create an API token for authentication.

Configuring the Acquia Cloud Platform

In order to connect to authenticate with the Acquia Cloud Platform API, an API token is needed. To generate the API token for your Acquia Cloud Platform account, execute the following steps.

Generate an API token

1. Sign in to the Cloud Platform user interface using the email address and the Acquia password of the target account.
2. Click on the user avatar in the upper right corner and then click on Account Settings.



3. On the Profile page, click on the API Tokens.
4. Provide a human-readable label for the API token and click Create Token.
   Cloud Platform will generate an API Key and API secret for the account.
5. Record a copy of the API Key and API secret.

> **Note:**
> The access token will expire 300 seconds (or 5 minutes) after being generated. It must be regenerated before this.

In order to remove a token, click on the **Remove** option next to the token.

Authenticating in the Cloud Platform API RESTful Interface Calls

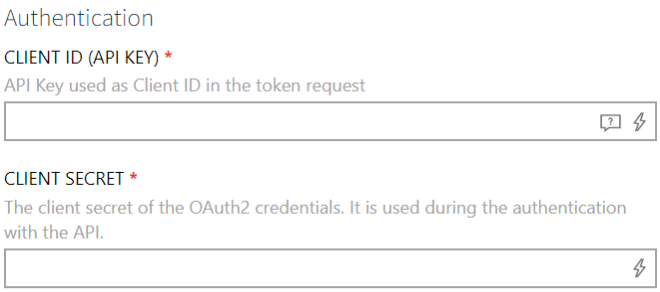
Each Cloud Platform API call authenticates requests with OAuth 2.0 client credentials and requires the information provided when generating an API token.

- **Access Token URL**: https://accounts.acquia.com/api/auth/oauth/token
- **Client ID**: The API Key provided when generating an API token.
- **Secret**: The API Secret provided when generating an API token.

The Client ID and the Secret will be exchanged for a bearer access token which authenticates calls to the Acquia Cloud Platform API. Information on bearer tokens can be found here.

> **Note:**
> Run `composer require league/oauth2-client` and then download an `example authentication script`.

Connector Setup



- The Client ID and the Client Secret are used to authenticate. In order to use the connector enter the API Key and the Client Secret that have been created as shown in the chapter Configuring the Acquia Cloud Platform.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Client ID (API Key)

This parameter should contain the API Key which is used as Client ID in the request token.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`"aXXXXXXXXXXXXXXXXXXXXXXXXXXXX789"`

To get the necessary credentials, the app has to be registered as described here: https://docs.acquia.com/cloud-platform/develop/api/auth.

Client Secret

This parameter should contain the client secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	`"1XXXXXX9-AAAA-BBBB-CCCC-a0XXXXXXXXXXz"`

To get the necessary credentials, the app has to be registered as described here: https://docs.acquia.com/cloud-platform/develop/api/auth.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://accounts.acquia.com/api/auth/oauth/token`
Description:	The Oauth token enpoint

Documentation:	https://docs.acquia.com/cloud-platform/develop/api/auth/#cloud-generate-api-token

Endpoint:	`https://cloud.acquia.com/api/account`
Description:	Account endpoint of the Acquia API
Documentation:	https://cloudapi-docs.acquia.com/#/Account/getAccount

Endpoint:	`https://cloud.acquia.com/api/organizations`
Description:	Organizations endpoint of the Acquia API
Documentation:	https://cloudapi-docs.acquia.com/#/Organizations/getOrganizations

Tables

Table	Column	Type
`account`	• `company` • `country` • `createdAt` • `firstName` • `id` • `jobFunction` • `jobTitle` • `lastLoginAt` • `lastName` • `mail` • `name` • `phoneMobile` • `phoneOffice` • `phoneTfa` • `state` • `timezone` • `uuid`	• `String` • `String` • `String` • `String` • `Integer` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`
`organizations`	• `adminsTotal` • `id` • `name` • `ownerFirstName` • `ownerLastName` • `ownerMail` • `ownerUsername` • `ownerUuid` • `rolesTotal` • `subscriptionsTotal` • `teamsTotal` • `usersTotal` • `uuid`	• `Integer` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `Integer` • `Integer` • `Integer` • `Integer` • `String`

Acquire

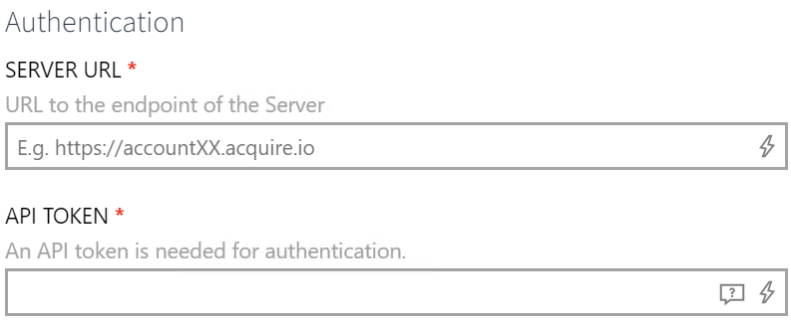
Connects to the Acquire REST API and fetches users and contracts.

Prerequisites

In order to create the API Key that is needed for the authentication with the Acquire API execute the following steps:

1. Log in to the Acquire account.
2. Navigate to **Settings** > **For Developers** > **API Key**.
3. Click on the **Create API Key** button.
4. Enter an easily identifiable name for the API Key and select the permissions for the token.
5. Click on the **Next** button.
6. Copy the API Key and safe the key to a secure location. It will not be displayed again and if the API Key is lost it will be necessary to create a new one.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Token that has been created for the connector into the **API TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222

the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://accountXX.acquire.io`

API Token

This parameter contains the API token that is need for authentication.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The authorization process is based on an API token. A description on how to configure the API

token can be found here.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverURL}/api/v1/account/user
Description:	Get users.
Documentation:	https://developer.acquire.io/rest-apis/settings/account-settings/account-user-agent/list

Endpoint:	{+serverURL}/api/v1/crm/objects/contact
Description:	Get contacts.
Documentation:	https://developer.acquire.io/rest-apis/customer/untitled

Tables

Table	Column	Type
users	• clientAppId • clientAuthorizer • clientId • clientPermissions • countryId • dateCreated • email • firstName • id • inviteToken • language • LastLoginId • lastName • name • ownerId • parentId • phone • stateId • status • type	• String • String • String • String • String • String • String • String • Integer • String • String • String • String • String • String • String • String • String • String • String
contacts	• caseDateUpdated • caseId • channel • clientDeviceModel • clientDeviceType • clientDeviceVendor • clientName • clientOsName	• String • String • String • String • String • String • String • String

Table	Column	Type
	• clientOsVersion • clientType • clientUserId • clientVersion • companyId • contactCompanyCount • dateCreated • dateUpdated • description • firstInteractionType • id • isBlocked • lastDateUpdated • lastInteractionType • latestObjectType • latestTimelineId • msgUnread • snoozeInContact • status • title • totalCase • totalNotes • totalTimeline • totalViews	• String • String • String • String • String • String • String • String • String • String • Integer • String • String • String • String • String • Integer • Boolean • String • String • Integer • Integer • Integer • Integer

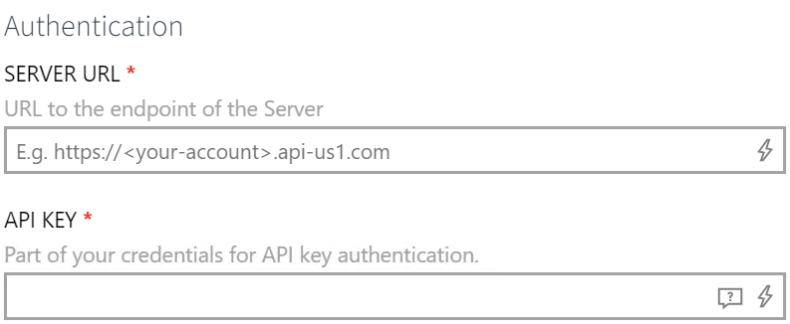
Active Campaign

Connects to the ActiveCampaign API to retrieve users and contacts data.

Prerequisites

For the authentication with the API an API key is needed. The API key can be found in the **Developer** tab on the **Settings** page of the ActiveCampaign account that is being used for the connector.

Connector Setup



- Enter the URL to the endpoint of the server where Active Campaign is hosted into the **SERVER URL** field.
- Enter the API key that is used for the authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`"https://<your-account>.api-us1.com"`

API Key

This parameter should contain part of the credentials for the API key authentication.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The process how to generate the API key can be found here.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/api/3/contacts
Description:	Get contacts.
Documentation:	https://developers.activecampaign.com/reference#list-all-contacts

Endpoint:	{+serverUrl}/api/3/users
Description:	Get users.
Documentation:	https://developers.activecampaign.com/reference#list-all-users

Tables

Table	Column	Type
users	• email • firstName • id • lastName • phone • signature • username	• String • String • String • String • String • String • String
contacts	• adate • bouncedDate • bouncedHard • bouncedSoft • cdate • deleted • edate • email • emailLocal • firstName • gravatar • hash • id • ip • lastName • orgId • organization • phone • ratingTstamp • segmentioId • sentcnt • socialDataLastCheck • ua • udate	• String • String

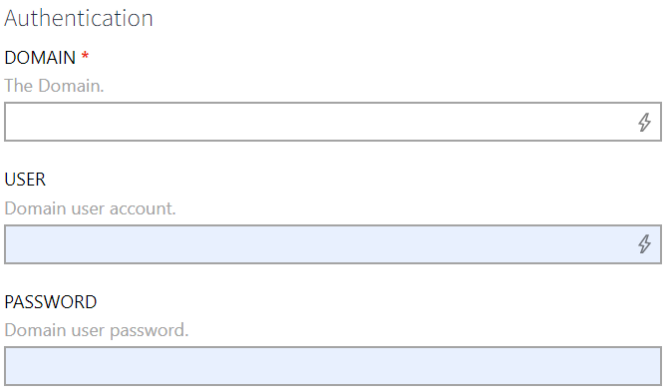
Active Directory

This connector is used to connect to and extract devices, groups, and users data from the specified Active Directory Domain.

Prerequisites

In order to run the connector, access to an account with sufficient rights (at least reading rights) is needed.

Connector Setup



- Enter the Domain name into the **DOMAIN** field.
- If the service account running the service already has sufficient rights, it is not necessary to enter data into the **USER** field and the **PASSWORD** field. If this is not the case enter the name of the user used for authentication into the **USER** field and the password of the user used for authentication into the **PASSWORD** field.

Connector Parameters

Configuration

Task Type

The Task Type defines the query that will be executed. Depending on the chosen option further parameters are defined.

Technical Name	`type`
Category	Functional
Type	• Get computers • Execute custom query • Get groups • Get users and group membership • Get user
Default Value	`{empty}`

Example Values	`Get user`

Get Computers

If **Task Type** contains `Get Computers` the following additional parameters can be used:

List of Attributes

This parameter contains a comma-separated list of custom attributes that should be returned by the query.

Technical Name	`attributes`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	

Execute Custom Query

If **Task Type** contains `Execute custom query` the following additional parameters can be used:

Query

This parameter can contain a custom query that should be executed.

Technical Name	`query`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	

List of Attributes

This parameter contains a comma-separated list of custom attributes that should be returned by the query.

Technical Name	`attributes`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	

Get Groups

If **Task Type** contains `Get groups` the following additional parameters can be used:

Nested Groups

This parameter determines whether nested groups are read or not.

Technical Name	`nestedGroups`
Category	Functional
Type	Boolean (`True` or `False`)
Default Value	`False`
Example Values	

List of Attributes

This parameter contains a comma-separated list of custom attributes that should be returned by the query.

Technical Name	`attributes`
Category	Functional
Type	String
Default Value	`{empty}`

Example Values	

Get Users and Group Membership

If **Task Type** contains `Get users and group membership` the following additional parameters can be used:

Nested Groups

This parameter determines whether nested groups are read or not.

Technical Name	`nestedGroups`
Category	Functional
Type	Boolean (`True` or `False`)
Default Value	`False`
Example Values	

Group Name or Filter

This parameter contains a comma-separated list of custom attributes that should be returned by the query.

Technical Name	`groupNames`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	

List of Attributes

This parameter contains a comma-separated list of custom attributes that should be returned by the query.

Technical Name	`attributes`
Category	Functional
Type	String
Default Value	`{empty}`

Example Values	

Get Users

If **Task Type** contains `Get users` the following additional parameters can be used:

List of Attributes

This parameter contains a comma-separated list of custom attributes that should be returned by the query.

Technical Name	`attributes`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	

Connection

Domain

This parameter represents the domain that is used.

Technical Name	`domain`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

User

This parameter specifies the domain user account.

Technical Name	`user`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	

Password

This parameter specifies the password for the domain user account.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Extracted Data

Tables

Extracted Tables:

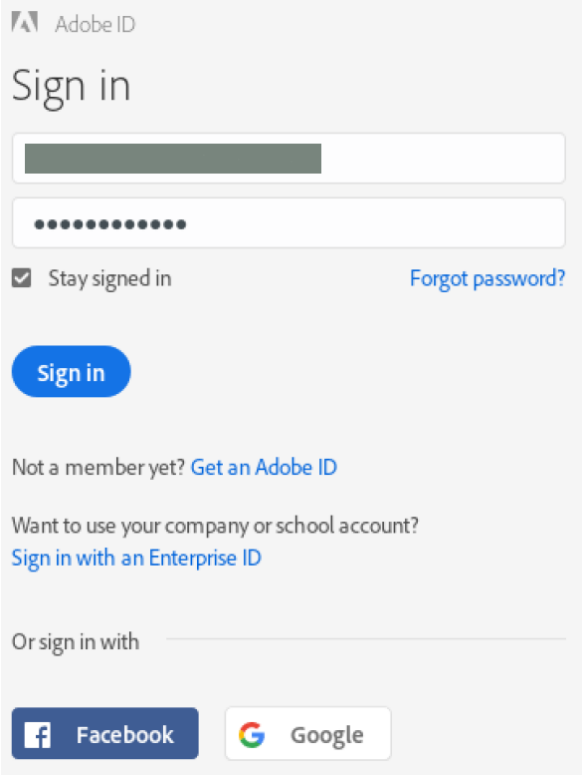
- `ActiveDirectoryDevices`
- `ActiveDirectoryGroups`
- `ActiveDirectoryUsers`

Adobe Admin Console

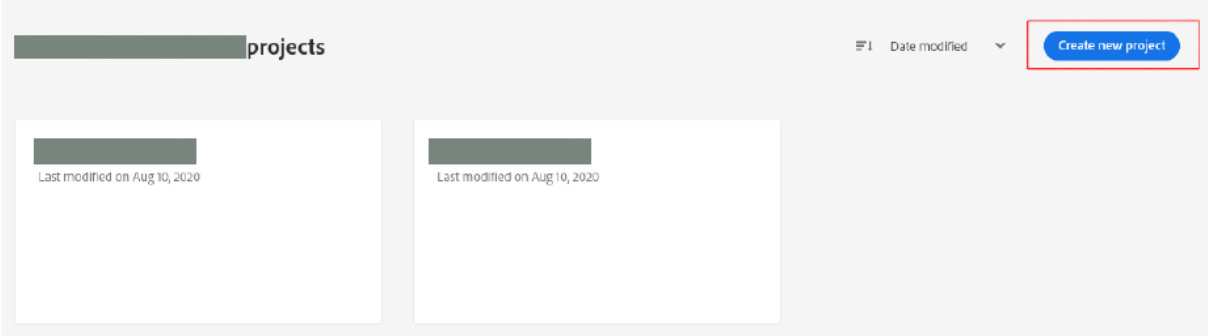
Connects to the Adobe UM API. It fetches Adobe subscriptions and the assigned users from the Adobe Admin Console. This connector will only work with the Creative Cloud for Enterprise plan.

Prerequisites

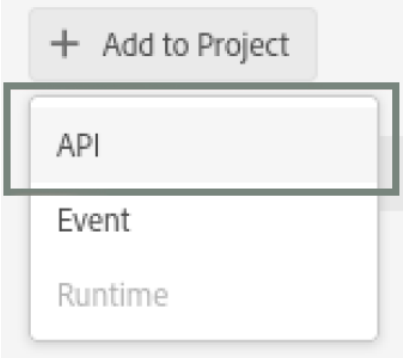
In order to get the parameters that are required for using the connector, execute the following steps:



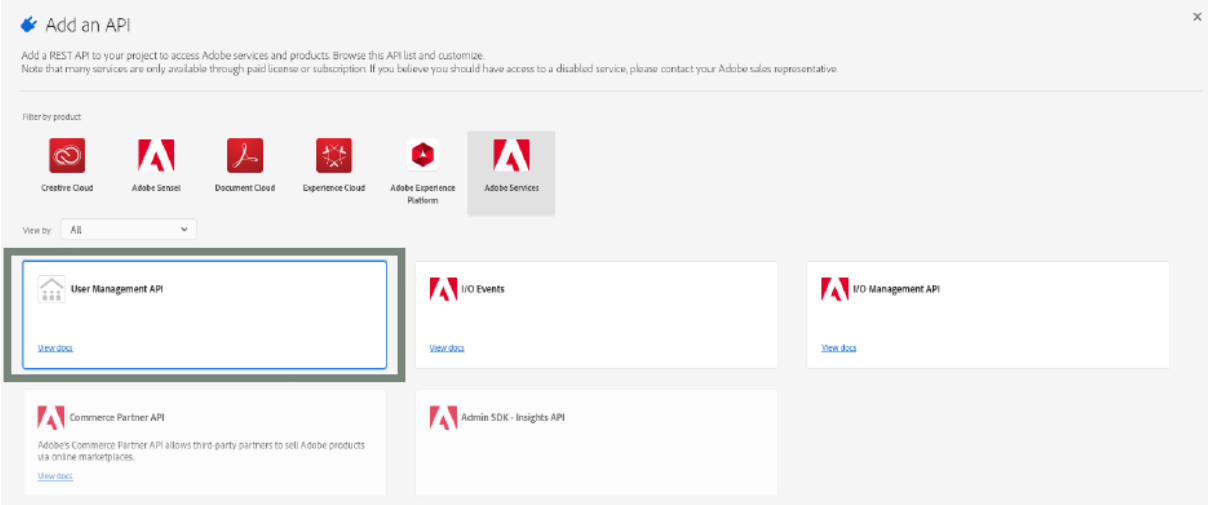
1. Sign in to Adobe.io.



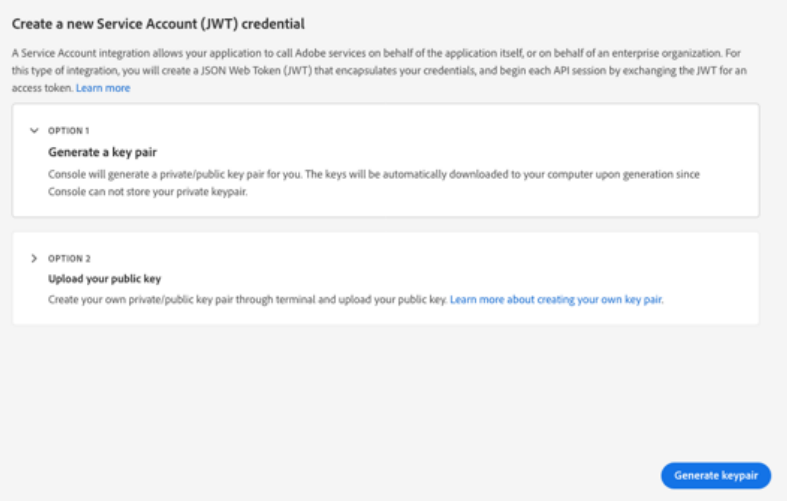
2. Create a new project for the target application.



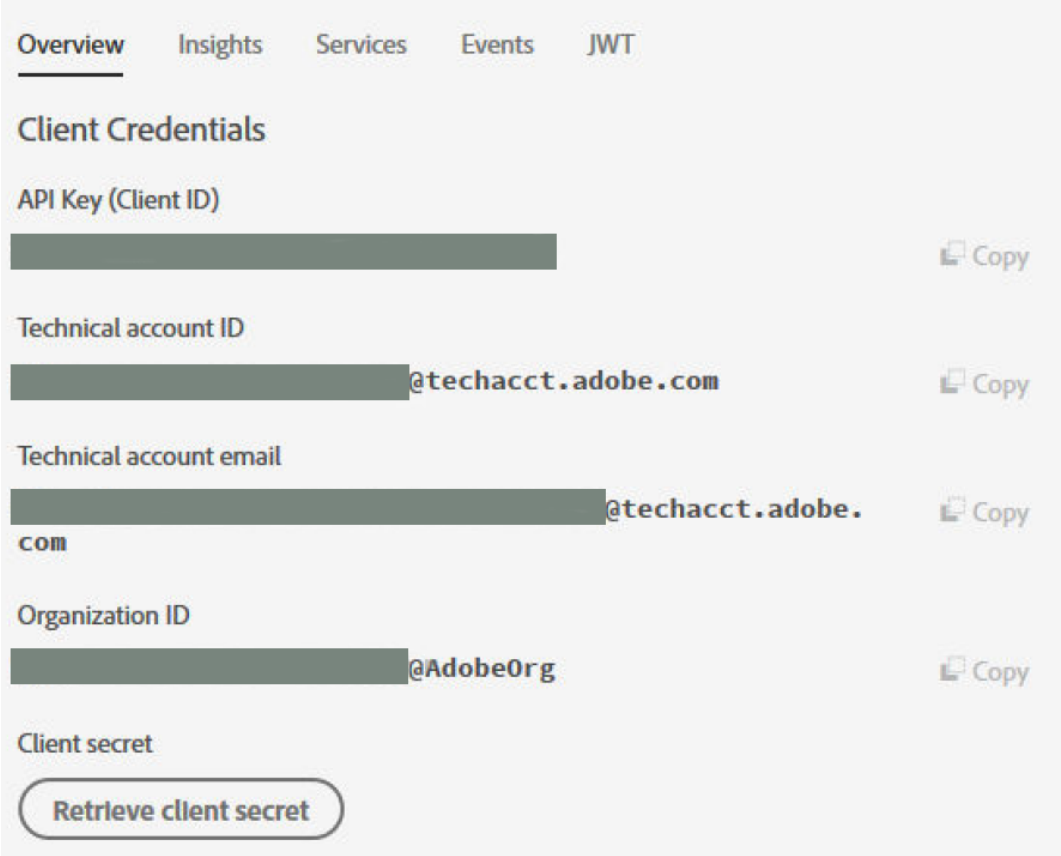
3. Add a new API access.



4. Select the User Management API.

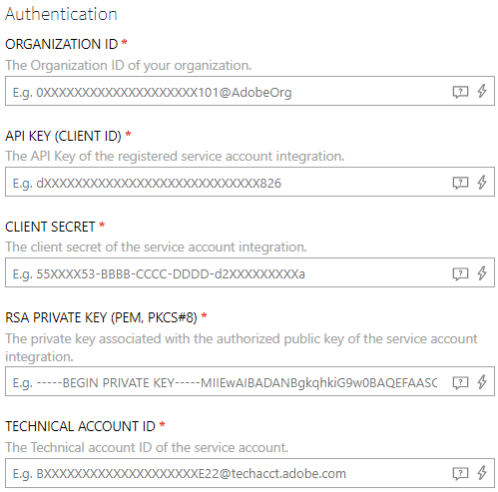


5. Use Option 1 **Generate a key pair** to create a key pair and safe it to a secure location. It is also possible to upload a key pair which has been generated previously.



6. Fetch the **API Key (Client ID)**, **Technical account ID**, **Organization ID**, and the **Client secret** from the **Credentials** tab. In order to be able to see the **Client secret**, click on the **Receive client secret** button. Save the values to a secure location for later usage with the connector or directly enter them into the connector.

Connector Setup



- Enter the Organization ID of the target organization into the **ORGANIZATION ID** field.
- Enter the API Key of the service account used into the **API KEY (CLIENT ID)** field.
- Enter the Client Secret for the service account used into the **CLIENT SECRET** field.
- Enter the Private Key that is associated with the authorized public key of the service account integration into the **RSA PRIVATE KEY (PEM, PKCS#8)** field.
- Enter the Technical Account ID of the service account into the **TECHNICAL ACCOUNT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Organization ID

This parameter should contain the Organization ID.

Technical Name	`org_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`0XXXXXXXXXXXXXXXXXXXX101@AdobeOrg`

If not already known, it is possible to get this information from the admin console on https://www.adobe.io.

API Key (Client ID)

This parameter should contain the API Key of the registered service account integration.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a

Example Values	dXXXXXXXXXXXXXXXXXXXXXXXXXXXX826

If not already known, it is possible to get this information from the admin console on https://www.adobe.io.

Client Secret

This parameter should contain the client secret that has been set during the integration of the service account.

Technical Name	client_secret
Category	Authentication
Type	String
Default Value	n/a
Example Values	55XXXX53-BBBB-CCCC-DDDD-d2XXXXXXXXXa

If not already known, it is possible to get this information from the admin console on https://www.adobe.io.

RSA Private Key (PEM, PKC#8)

This parameter should contain the private key that is associated with the authorized public key of the service account integration.

Technical Name	private_key
Category	Authentication
Type	String
Default Value	n/a
Example Values	-----BEGIN PRIVATE KEY----- MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgE AAoIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiL byzw22wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP ... vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWI yQXx/U4aNjoXBLzyvf1t4 -----END PRIVATE KEY-----

This is the private key that is associated with the public key that has been uploaded adobe.io. It

must be PEM/PKC#8 formatted.

Technical Account ID

This parameter should contain the technical account id of the service account.

Technical Name	`tech_account_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`"BXXXXXXXXXXXXXXXXXXXXE22@techacct.adobe.com"`

If not already known, it is possible to get this information from the admin console on https://www.adobe.io.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://usermanagement.adobe.io/v2/usermanagement/groups/{orgID}/`
Description:	Group endpoint of the Adobe User Management API (UMAPI). It returns all groups in an organizational unit.
Documentation:	https://adobe-apiplatform.github.io/umapi-documentation/en/api/group.html

Endpoint:	`https://usermanagement.adobe.io/v2/usermanagement/users/{orgId}/`
Description:	User endpoint of the Adobe User Management API (UMAPI). It returns all users in an organizational unit.
Documentation:	https://adobe-apiplatform.github.io/umapi-documentation/en/api/getUsersWithPage.html

Endpoint:	`https://bps-il.adobe.io/jil-api/v2/organizations/{orgId}/products/`
Description:	Unofficial product endpoint of the Adobe Admin Console. It returns all products available in an organizational unit. This endpoint was reverse engineered from the web front-end and might change at anytime. Please contact support if you encounter problems with this endpoint.
Documentation:	n/a

Endpoint:	`https://ims-na1.adobelogin.com/ims/exchange/jwt/`
Description:	Central authentication endpoint from all Adobe APIs. If valid credentials which have to be registered beforehand in the Adobe.io Console exist, it is possible to get a token for requests to the other endpoints.
Documentation:	n/a

Tables

Table	Column	Type
users	• country • domain • email • firstname • groups • lastname • status • type • username	• String • String • String • String • String • String • String • String • String
groups	• adminGroupName • groupId • groupName • licenseQuota • memberCount • productName • productProfileName • type • userGroupName	• String • Integer • String • String • Integer • String • String • String • String
products	• assignedQuantity • code • contractId • customerSegment • delegatedQuantity • fulfillableItemCode • fulfillableItemEnterpriseName • fulfillableItemLongDescription • fulfillableItemLongName • fulfillableItemPurchased • fulfillableItemSelected • fulfillableItemShortDescription • fulfillableItemType • groupsQuantity • id • longName • offerId • pricePoint • productArrangementCode • provisionedQuantity • shortName	• String • String

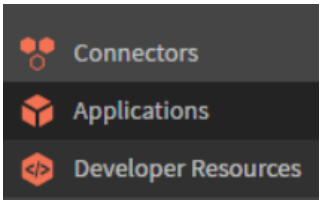
Adobe Captivate Prime

Connects to the Adobe Captivate Prime V2 API and fetches users.

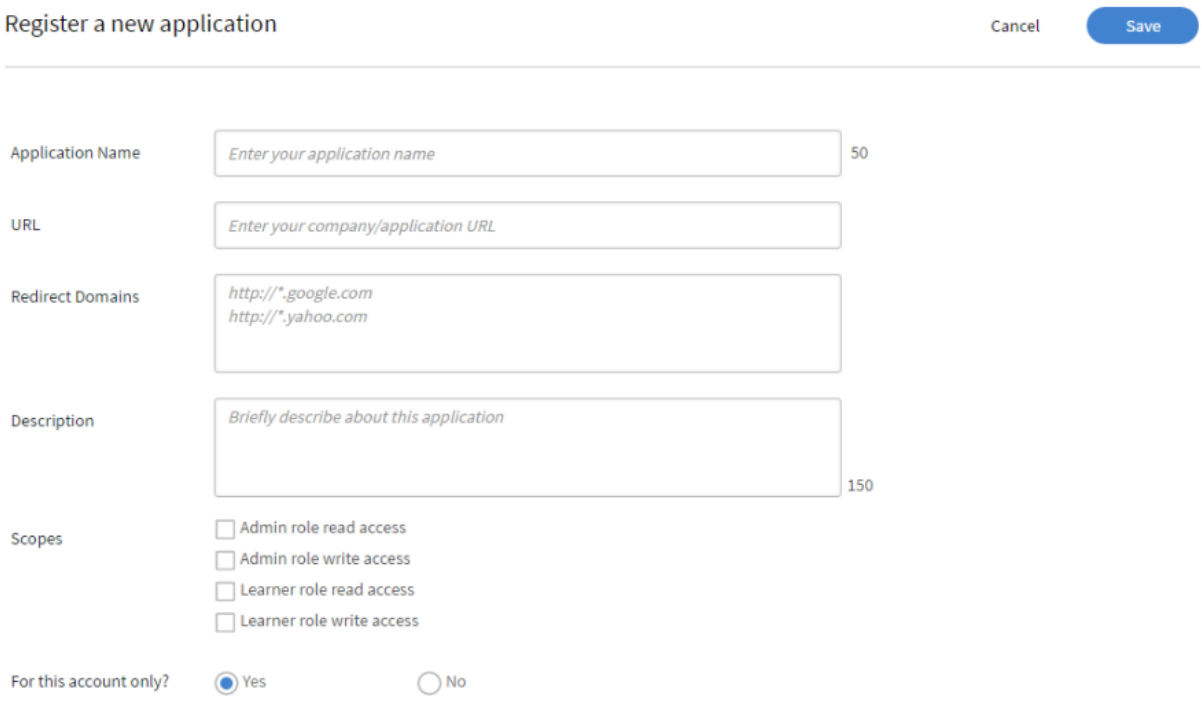
Prerequisites

In order to use the connector it is necessary to get the Client ID, the Client Secret and the Refresh Token. To get these execute the following steps:

1. Click on Application located on the left pane of the Integration Admin login.



2. At the upper-right corner of the page click on Register to open the Register a new application page.



All fields on the page are mandatory.

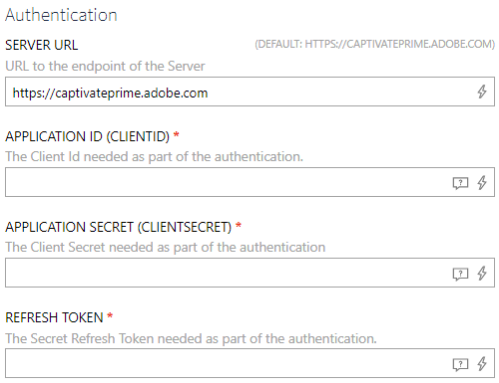
- **Application Name**: A name for the application. It is recommended to use the actual name of the application, even so any valid name can be used.
- **URL**: A valid URL. Preferably, the URL where the application is hosted, even so any valid URL can be used.

- **Redirect Domains**: The domain name to which to redirect the Captivate Prime application after the OAuth authentication. Multiple URLs can be used, but they need to be valid.
- **Description**: A brief description of the application.

- **Scopes**: There are four different scopes to choose from. This represents the scope of access that will granted to the application.
- **For this account only?**
  Yes - The application will not be visible to other account administrators.
  No - Other account administrators can access the application, but in order to access the application they need the Application ID. The Application ID is generated and displayed in the Captivate Prime **Application Edit** mode.

3. After filing in the details, click on the **Save** button located at the upper-right corner.

Connector Setup



- Enter the Client ID that is needed as part of the authentication into the **APPLICATION ID (CLIENTID)** field.
- Enter the Client Secret that is needed as part of the authentication into the **APPLICATION SECRET (CLIENTSECRET)** field.
- Enter the secret Refresh Token that is needed as part of the authentication into the **REFRESH TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://captivateprime.adobe.com`
Example Values	`https://captivateprime.adobe.com`

Application ID (ClientID)

This parameter contains the Client ID needed as part of the authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The Application ID is generated during the Application Setup. A new application can be

registered by any administrator in the Integration Admin app. It is necessary to activate the "Admin role read access" scope 'admin:read' during the registration. Selecting a correct redirect domain is highly security relevant, because authentication tokens will be sent to those domains later in the process. A good choice for the domain would be the domain of the company or `http://localhost`. After the registration the Application ID and the Application Secret is displayed.

Application Secret (Clientsecret)

This parameter contains the client secret needed as part of the authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The Application Secret is generated during the setup of the application as described in the Application ID parameter.

Refresh Token

This parameter contains the secret refresh token needed as part of the authentication.

Technical Name	refresh_token
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The refresh token is a long lived token which can be exchanged for short lived access tokens which in turn are used by the connector to fetch the data. The generation of a refresh token is a multi-step process described in the official documentation. One can use the token helper which facilitates the creation of a refresh token. Set the redirect URI to a domain that was whitelisted during the registration of the application.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`10`
Example Values	`10`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/oauth/token/refresh`
Description:	Authenticates with the API and returns an access token in exchange for a valid refresh token.
Documentation:	https://helpx.adobe.com/captivate-prime/user-guide.html/captivate-prime/integration-admin/feature-summary/developer-manual.ug.html

Endpoint:	`{+serverURL}/primeapi/v2/users`
Description:	Get users. Requires the 'admin:read' scope.
Documentation:	https://captivateprime.adobe.com/docs/primeapi/v2/#!/user/get_users

Tables

Table	Column	Type
users	• email • gamificationEnabled • id • lastLoginDate • name • pointsEarned • pointsRedeemed • profile • state • type • userType	• String • Boolean • Integer • String • String • Integer • Integer • String • String • String • String

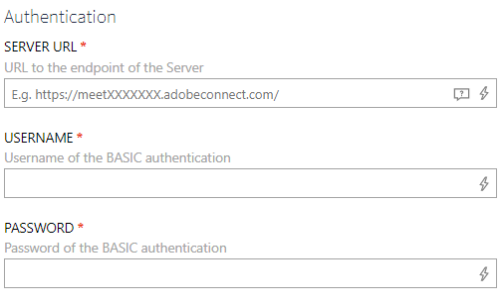
Adobe Connect

This connector is used to connect to the Adobe Connect API and fetches the principal list and principal info.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password for the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Session Timeout

The time in seconds after which the connection of the application for a desktop session will automatically timeout.

Technical Name	`session_timeout`
Category	Functional
Type	Integer
Default Value	`345600`
Example Values	`345600`

Authentication

Server URL

This parameter should contain the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a

Example Values	"https://meetXXXXXXXX.adobeconnect.com"

If not already known, it is possible to get this information from the admin console.

Username

This parameter should contain the username for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`"Exampleuser"`

Password

This parameter should contain the password for the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`"aXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX9"`

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	• Integer • `null`
Default Value	`null`
Example Values	`6000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	• Integer • `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical

Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
principal_info	• accountId • aclId • code • disabled • email • extLogin • firstName • hasChildren • isEcommerce • isHidden • isPrimary • lang • lastName • login • managerAccountId • managerDisabled • managerEmail • managerExtLogin • managerFirstName • managerHasChildren • managerIsEcommerce • managerIsHidden • managerIsPrimary • managerLastName • managerLogin • managerName • managerPrincipalId • managerTosStatus • managerType • name • principalId	• Integer • Integer • String • String • String • String • String • Boolean • Boolean • Boolean • Boolean • String • String • String • Integer • String • String • String • String • Boolean • Boolean • Boolean • Boolean • String • String • String • Integer • String • String • String • String

Table	Column	Type
	• timeZoneId • tosStatus • type	• String • String • String

Adobe Marketo

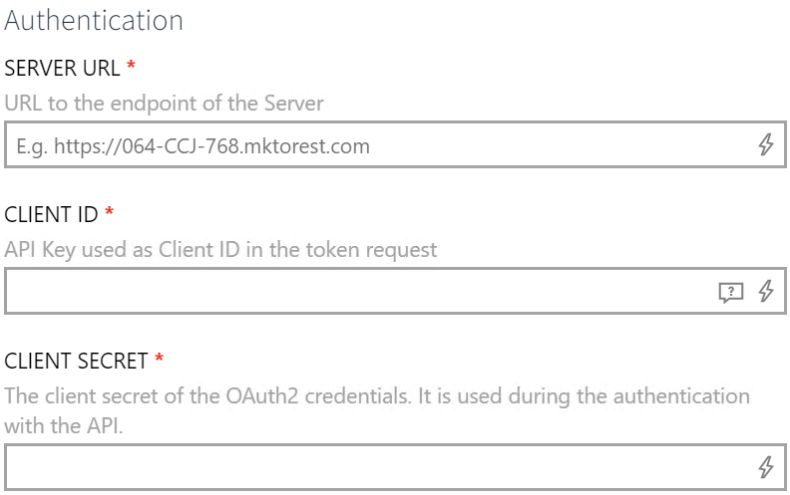
Connects to the Adobe Marketo REST API and fetches users and usages.

Prerequisites

In order to create the Client ID and the Client Secret that are used for the authentication with the Adobe Marketo REST API execute the following steps.

1. Go to the **LaunchPoint** section of the **Admin** menu.
2. Click on **New** and select **New Service**.
3. Enter an easily identifiable name for the service and select **Custom** from the **Service** list.
4. Enter a description for the service and select an appropriate user from the **API Only User** list.
5. Click on the **CREATE** button.
6. The new service has been added to the list of services. In order to get the Client Id and the Client Secret that are required for the authentication, click on the **View Details** option.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key that is used as the Client ID in the token request into the **CLIENT ID** field.
- Enter the Client Secret that is used as part of the OAuth2 credentials into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://064-CCJ-768.mktorest.com`

Client ID

This parameter contains the API key that is used as Client ID in the token request.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

To get the necessary credentials (Client ID and Client Secret), the app has to be registered as described here.

Client Secret

This parameter contains the client secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• apiOnly • emailAddress • firstName • id • lastName • userid	• Boolean • String • String • Integer • String • String
usages	• count • userId	• Integer • String

Adobe Sign

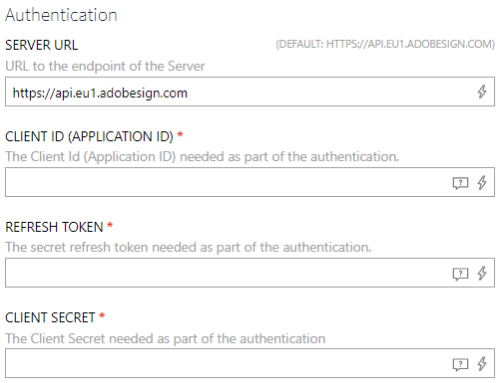
Connects to the Adobe Sign REST API V6 to retrieve user information from it. The whole process of obtaining Client ID, Client Secret, and Refresh Token is explained in detail on the Create Application page.

Prerequisites

In order to obtain the credentials necessary to use the connector, follow these steps:

- Create a new application on the Application List page.
- Once the application has been created, click on the Configure OAuth link to configure the OAuth integration. The page contains the following information:
  - The **Client ID** and the **Client Secret** that are needed for the token exchange.
  - Specify the **Redirect URI** that will be used to return the users to after the OAuth flow.
  - Select the scopes that should be enabled for the application (the connector needs at least reading rights).

Connector Setup



- Enter the Client ID needed as part of the authentication into the **CLIENT ID (APPLICATION ID)** field.
- Enter the secret Refresh Token needed as part of the authentication into the **REFRESH TOKEN** field.
- Enter the Client Secret needed as part of the authentication into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter should contain the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`"https://api.eu1.adobesign.com"`
Example Values	`"https://api.eu1.adobesign.com"`

Client ID (Application ID)

This parameter should contain the Client ID (Application ID) that is needed as part of the authentication.

Technical Name	`client_id`

Category	Authentication
Type	String
Default Value	n/a
Example Values	`"Exampleuser"`

The Client ID is generated during the application setup and is static. Copy the Client ID from the application page. It is also needed for the generation of the Refresh Token.

Refresh Token

This parameter should contain the secret refresh token that is needed as part of the authentication.

Technical Name	`refresh_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The connector will generate short lived access tokens based on a long lived refresh token. The refresh token must be generated interactively with the Client Secret and Client ID as described in the official documentation. Follow the steps 1-4 and copy the refresh token form the response using an appropriate tool (Postman, curl, Firefox developer mode, etc.).

Client Secret

This parameter should contain the Client Secret that is needed as part of the authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer

Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	• Integer • `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	• Integer • `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/oauth//refresh`
Description:	Authenticates with the API and returns an access token in exchange for valid credentials
Documentation:	https://secure.adobesign.com/public/static/oauthDoc.jsp#refreshRequest

Endpoint:	`{+serverURL}/api/rest/v6/users`
Description:	Gets a list of users. Requires 'user_read:account' scope
Documentation:	https://secure.eu1.adobesign.com/public/docs/restapi/v6#!/users/getUsers

Tables

Table	Column	Type
`users`	• `accountId` • `company` • `email` • `firstName` • `id` • `isAccountAdmin` • `lastName`	• `String` • `String` • `String` • `String` • `String` • `Boolean` • `String`

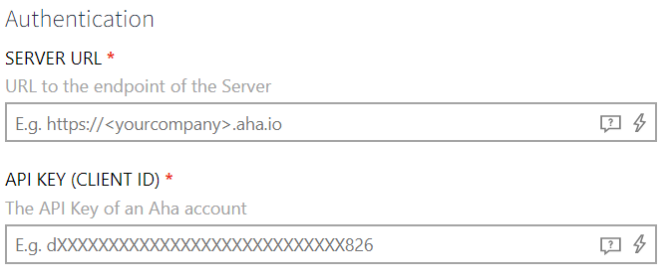
Aha!

This connector is used to connect to the Aha! REST API. It collects user data.

Prerequisites

In order to use the Aha! connector an API key for the connection with the Aha! account is needed. The API key can be generated in the Aha! user interface. It is possible for a user to have multiple API keys and they can be revoked independently. The API key will still be working even if the user changes the password.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key of the Aha account into the **API KEY (CLIENT ID)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`"https://<examplecompany>.aha.io"`

API access only works over HTTPS. HTTP requests will be redirected to HTTPS. The API must be accessed using the account specific domain.

API Key (Client ID)

This parameter should contain the API Key of an Aha! account.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	"dXXXXXXXXXXXXXXXXXXXXXXXXXXXX826"

The API key can be found in the personal settings. The API key is specific to a user and an account and will only grant access to the specific account with the permissions of the specific user that has created the key.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer Null
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer Null
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/api/v1/users`
Description:	User endpoint of the Aha! REST API.
Documentation:	https://www.aha.io/api/resources/users/list_users

Tables

Table	Column	Type
`users`	• `administrator` • `email` • `enabled` • `firstName` • `id` • `lastName`	• `String` • `String` • `String` • `String` • `String` • `String`

Amazon Athena

Connects using Amazon Athena and extracts data from the S3 bucket based on a user written arbitrary query that is sent to the Amazon Athena. Help about setting up an AWS accound can be found here. The connector uses the AWS Java SDK 2

- Proxy configuration
  The underlying AWS Java SDK behaves strangely with proxies. Only the system parameter `http.proxyHost`and `http.proxyPort`are used for both HTTP and HTTPS connections. Setting `https.proxyHost`and `https.proxyPort`will have no effect. Socks proxies are not supported by the AWS Java SDK. Setting `socksProxyHost`and `socksProxyPort`will have no effect.

Prerequisites

Configure AWS for Athena

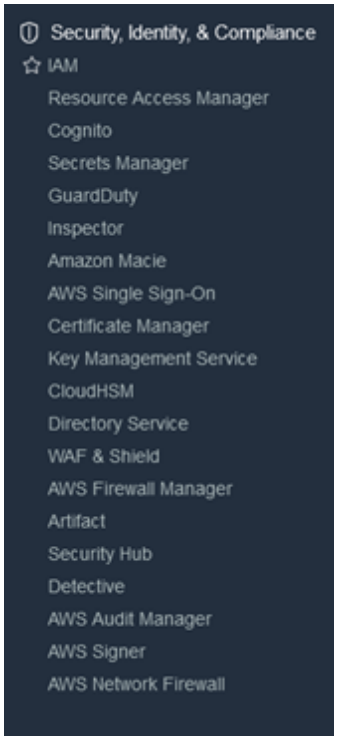
This section of the document provides basic information on how to configure an AWS account to enable the RayVentory Data Hub agent to authenticate against the account and inventory the data from Amazon Athena.

Identity and Access Management

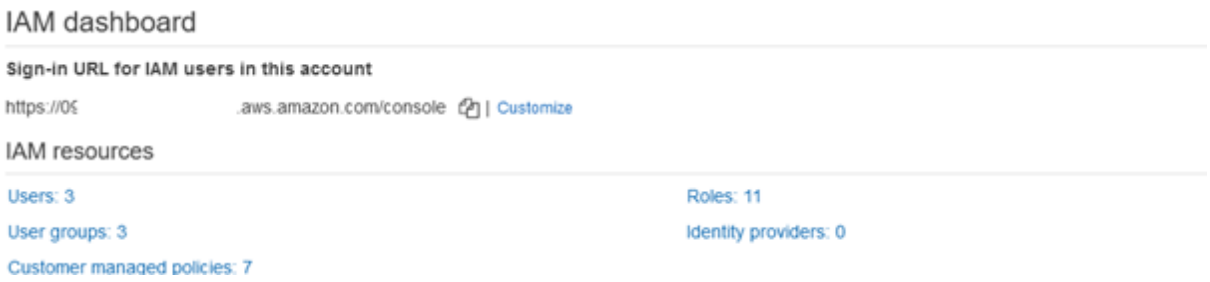
The AWS Identity and Access Management (IAM) feature enables its users to manage access to AWS services and resources under the respective AWS user account. Furthermore, it allows users to set the interconnection between AWS accounts. IAM includes four major areas/components:

- **Users:** AWS accounts
- **Groups:** A collection of user accounts under one set of permissions
- **Roles:** A role can be created and assigned to AWS resources
- **Policies:** A document that defines one or more permissions

Use the Management Console to access the IAM login to the AWS account. After the login select IAM under the Security, Identity, & Complicance category of the AWS Service list.

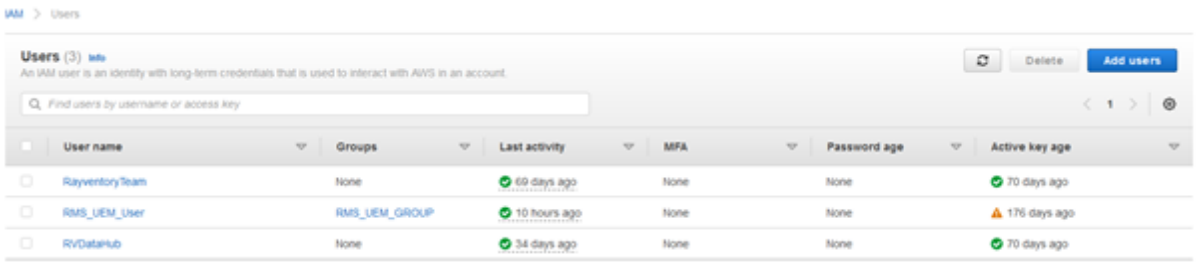


Once the IAM dashboard is loaded select the Users from the IAM resources.



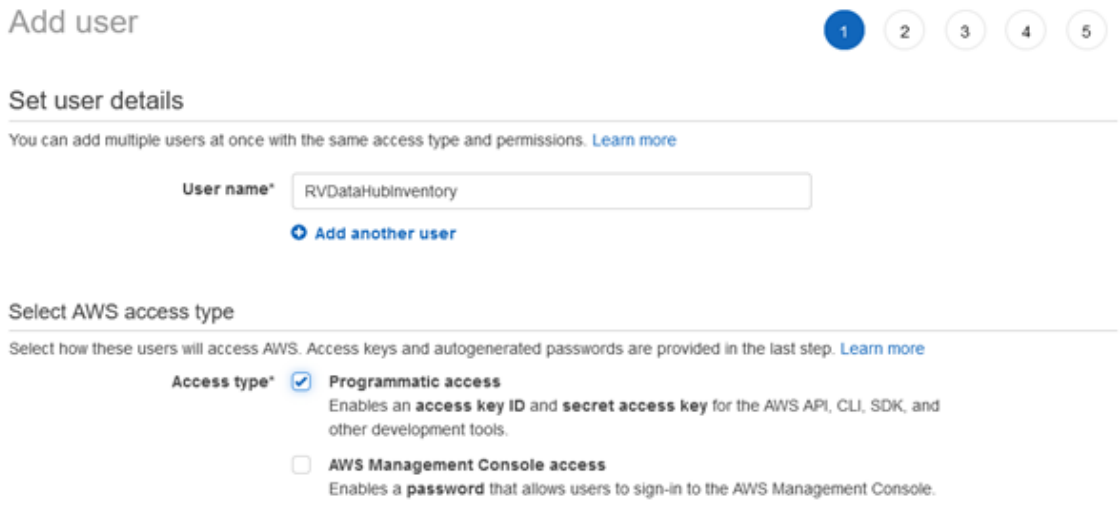
User Setup

Click on the **Add users** button on the **IAM -> Users** dashboard.

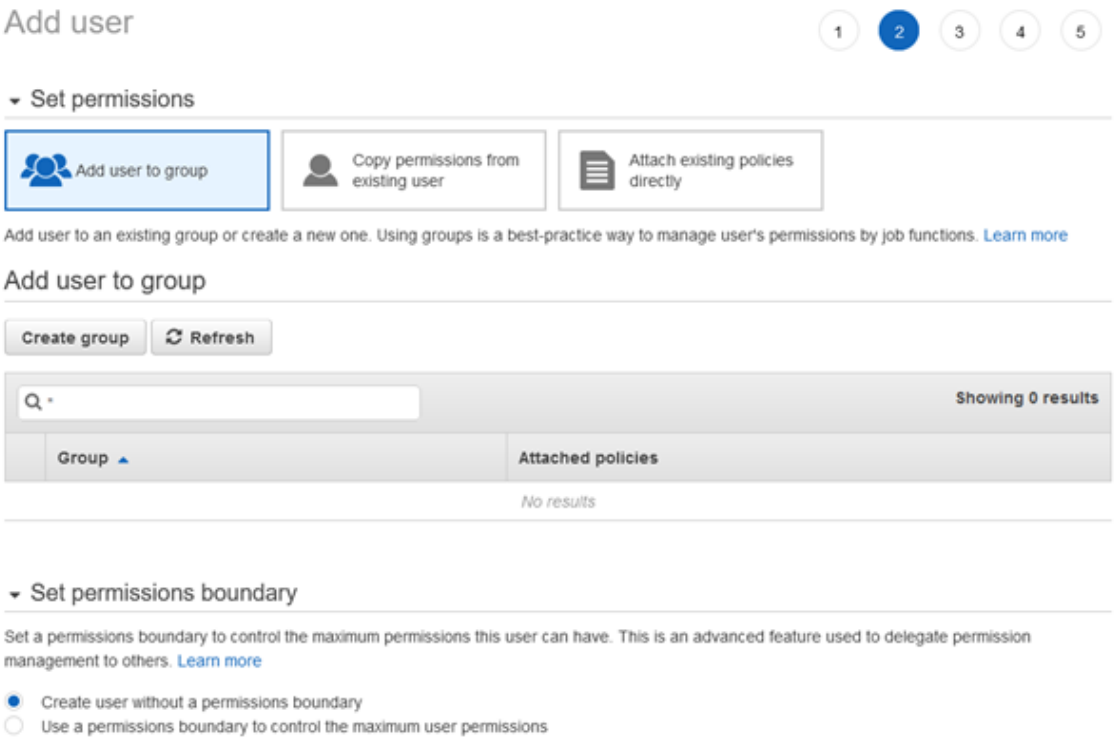


Follow the steps as illustrated below to add a new user for the inventory.

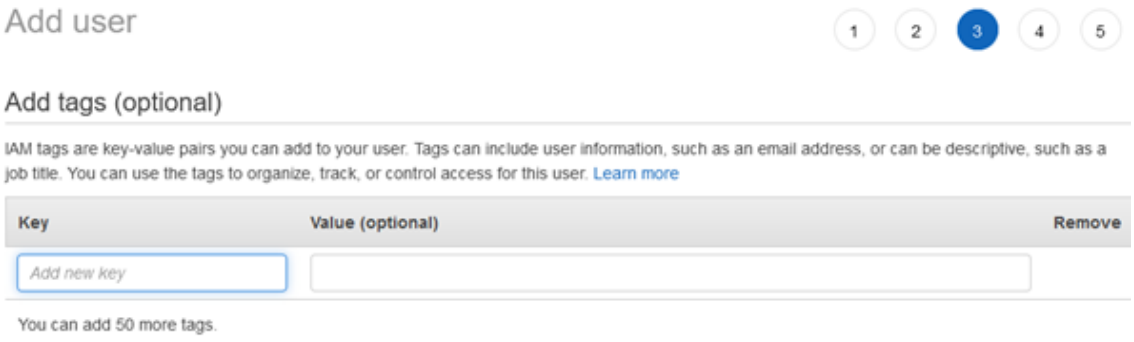
1)


Add user
1 2 3 4 5
Set user details
You can add multiple users at once with the same access type and permissions. Learn more
User name*
RVDataHubInventory
Add another user
Select AWS access type
Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. Learn more
Access type*
Programmatic access
Enables an access key ID and secret access key for the AWS API, CLI, SDK, and other development tools.
AWS Management Console access
Enables a password that allows users to sign-in to the AWS Management Console.

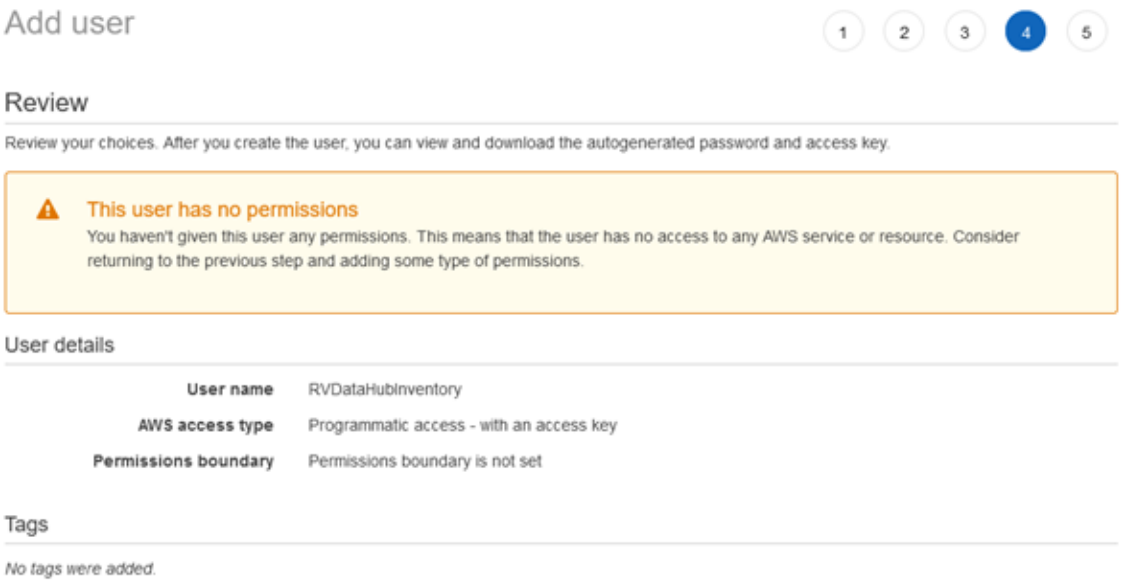
2)


Add user
1 2 3 4 5
Set permissions
Add user to group
Copy permissions from existing user
Attach existing policies directly
Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. Learn more
Add user to group
Create group
Refresh
Showing 0 results
Group
Attached policies
No results
Set permissions boundary
Set a permissions boundary to control the maximum permissions this user can have. This is an advanced feature used to delegate permission management to others. Learn more
Create user without a permissions boundary
Use a permissions boundary to control the maximum user permissions

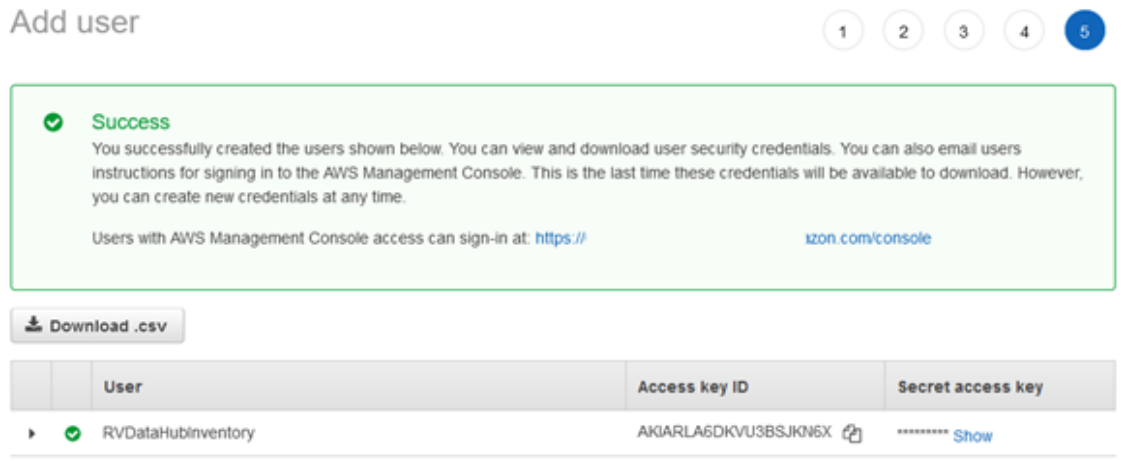
3)


Add user
1 2 3 4 5
Add tags (optional)
IAM tags are key-value pairs you can add to your user. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this user. Learn more
Key
Value (optional)
Remove
Add new key
You can add 50 more tags.

4)



5)



- Only allow programmatic access for the user.
- Permission assignment will be done later.
- Once the user is created, download the Access Key and the Secret Key as `.csv` file.
- Store the `.csv` file in a secure location.

To add a new role, navigate back to the IAM console, select Roles, and click on the **Create new** button.

Attach the following managed policy to the role:

- `AmazonAthenaFullAccess`

Edit the Trust Relationship to point to the parent user account.

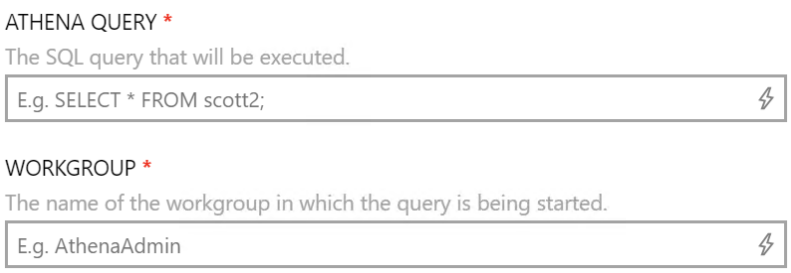
Copy the Role ARN for the next step.

Assign User Account to the Role

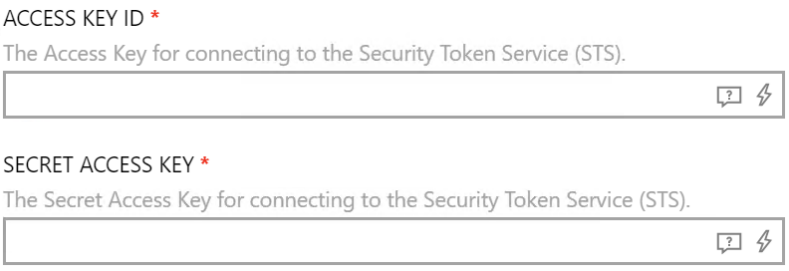
At this step, assign the permission to use **AssumeRole** to the user account created in the first step. AssumeRole is an action available under the AWS Security Token service that returns a set of temporary security credentials that can be used to access the AWS resources. These temporary credentials consist of an access key ID, a secret access key, and a security token.

To assign the permission navigate back to **IAM** > **Users**. Select the user created in the previous step. Once selected click on the **Add permissions** button located in the **Permissions** tab. This will open the **Grant permissions** page.

Connector Setup



- Enter the SQL query that will be executed into the **ATHENA QUERY** field.
- Enter the name of the workgroup in which the query is being started into the **WORKGROUP** field.



- Enter the access key that is used to connect to the Security Token Service (STS) into the **ACCESS KEY ID** field.
- Enter the secret access key that is used to connect to the Security Token Service (STS) into the **SECRET ACCESS KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Sub-account Skips

This parameter determines whether a task will fail if the authentication with a sub-account fails.

Technical Name	`allow_sub_account_skips`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false, true`

Be aware:
If a task does not fail when the authentication with a sub-account fails, this might lead to incomplete data.

AWS Regions

This parameter contains a comma-separated list of AWS-regions from where to fetch the data. Omit this parameter or set it to an empty string in order to fetch data from all active regions.

Technical Name	`regions`
Category	Functional
Type	Array
Default Value	`{empty}`
Example Values	`eu-west-1,us-east-2`

A list with all available regions can be found at: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html.

Athena Bucket Name

This parameter contains the name of the bucket from which to fetch the data.

Technical Name	`athena_bucket_name`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null, s3://bucketscott2`

Athena Query

This parameter contains the SQL query that will be executed.

Technical Name	`athena_query`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	`Select * FROM scott2;`

Workgroup

This parameter contains the name of the workgroup in which the query is being started.

Technical Name	`workgroup`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	`AthenaAdmin`

Database

This parameter contains the name of the database which will be targeted.

Technical Name	`database`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

Catalog

This parameter contains the name of the data catalog that is used in the query execution.

Technical Name	`catalog`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null, AwsDataCatalog`

Authentication

Access Key ID

This parameter contains the Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`access_key_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Secret Access Key

This parameter contains the Secret Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`secret_access_key`
Category	Authentication

Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Session Token

This parameter contains the Session Token for the connection to the Session Token Service (STS).

Technical Name	`session_token`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Assume Role ARN Chain

Use the Session Token Service (STS) to assume the given roles one after another.

Technical Name	`master_assume_role_arn_chain`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`arn:aws:iam::123456789012:role/ROLE_NAME`

The initial credentials might not have the required permissions for the job. One can perform a

privilege escalation with the Assume Role request via STS. For more information on the AWS authentication process read the official documentation. Using a list of roles will chain the assumptions together. The connector gets session credentials for the first role with the initial credentials. Then, with the session credentials it assumes the second role and so on. The last session credentials are used for the actual API accesss. When aggregating data of an Organizational Unit, this chain is used only for the master account of the OU.

External ID

This parameter can be used in order to provide an external ID for cross-account access with the Session Token Service (STS).

Technical Name	`assume_external_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null, 987654321098`

The External ID is used with ever role assumption of the Assume Role ARN Chain. Read about the AWS authentication mechanism in the official documentation.

List Accounts

This parameter defines the accounts in the OU from which the data will be fetched.

Technical Name	`sub_account_assume_role_arn_chain`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null` `arn:aws:iam::{accountId}:role/ROLE_NAME`

When managing a large number of accounts one can aggregate them in an Organizational Unit (OU). Instead of running the connector for every single account, the connector can fetch the list of accounts from the OU and aggregate the data automatically. When setting this parameter, the last role in the Assume Role Chain must have enough privileges for the ListAccount request. The initial credentials (Access Key ID, Secret Access Key, and Session Token) are reused for the first authentication, but for the cross-account access to the sub-accounts this chain is used instead. Use the placeholder {accountId} in the chain which is replaced by the sub-account IDs at run-time. Leave the chain empty of null to fetch data only from the master account.

Extracted Data

Endpoint:	`https://s3.{region}.amazonaws.com/`
Description:	The connector will connect to the regional endpoints of the specified regions.
Documentation:	https://docs.aws.amazon.com/general/latest/gr/rande.html

Tables

Table	Column	Type
`query_result`		

Amazon Elastic Compute Cloud (EC2)

Amazon Elastic Compute Cloud or EC2 is a web service offered by Amazon Web Services under the category Compute. Amazon EC2 offers an on demand, robust, secure, and scalable cloud computes platform with a choice of storage, OS, networking, etc. It can be bundled together to fulfill the compute requirements of its end customers.

While the ease of scalability makes it easier for the users to handle on demand requirements, it also imposes a challenge towards monitoring the scale of the environment which, when unchecked can lead to going over budget and bill-shock.

The RayVentory Data Hub connector for EC2 provides a solution for a scheduled inventory of EC2 instances and their attributes. The data gathered can then be depicted in user defined reports and can further be distributed as notification to the target user/user group.

The RayVentory Data Hubconnector for EC2 fetches information about all instances hosted at the Amazon Elastic Compute Cloud (EC2). The connector uses the AWS Java SDK 2.

Be aware:
The underlying AWS Java SDK behaves strangely with proxies. Only the system parameter 'http.proxyHost' and 'http.proxyPort' are used for both HTTP and HTTPS connections. Setting 'https.proxyHost' and 'https.proxyPort' will have no effect. Socks proxies are not supported by the AWS Java SDK. Setting 'socksProxyHost' and 'socksProxyPort' will have no effect.

Prerequisites

Configuring AWS for EC2

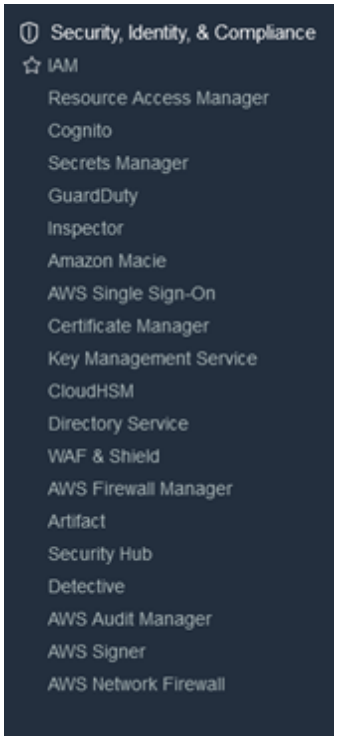
This section of the document provides basic information on how to configure an AWS account to enable the RayVentory Data Hub agent to authenticate against the account and inventory the data from the Amazon Elastic Compute Cloud.

Identity and Access Management

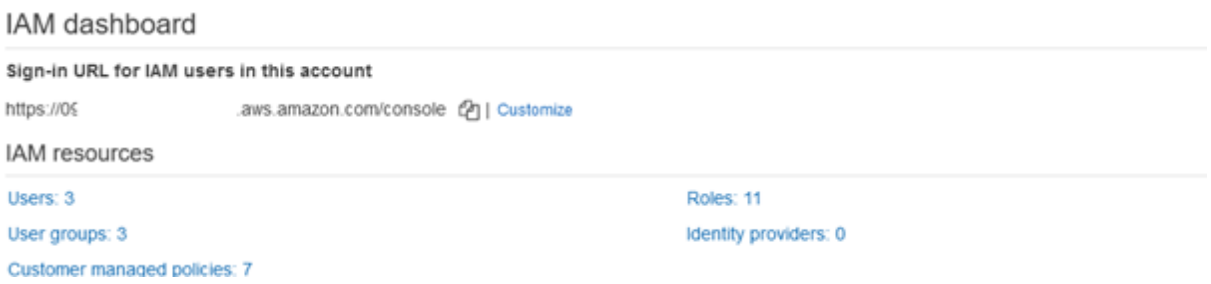
The AWS Identity and Access Management (IAM) feature enables its users to manage access to AWS services and resources under the respective AWS user account. Furthermore, it allows users to set the interconnection between AWS accounts. IAM includes four major areas/components:

- **Users:** AWS accounts
- **Groups:** A collection of user accounts under one set of permissions
- **Roles:** A role can be created and assigned to AWS resources
- **Policies:** A document that defines one or more permissions

Use the Management Console to access the IAM login to the AWS account. After the login select IAM under the Security, Identity, & Complicance category of the AWS Service list.

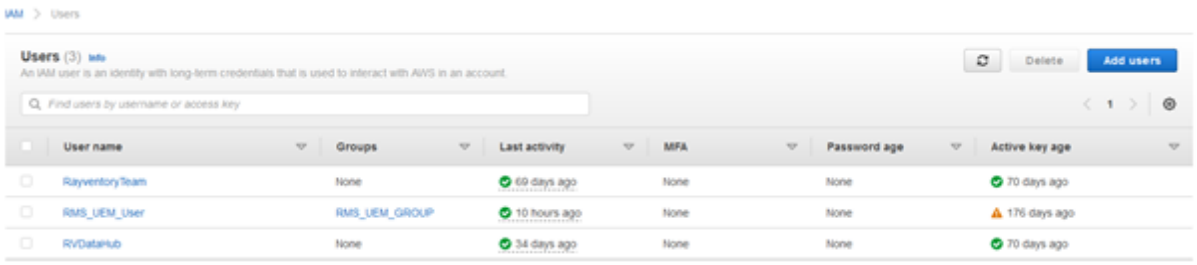


Once the IAM dashboard is loaded select the Users from the IAM resources.



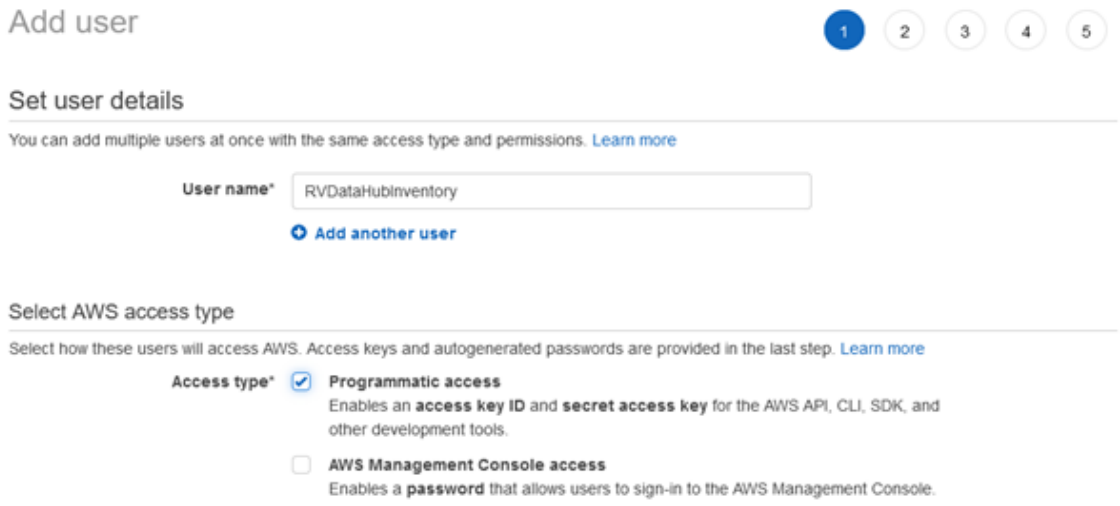
User Setup

Click on the **Add users** button on the **IAM -> Users** dashboard.

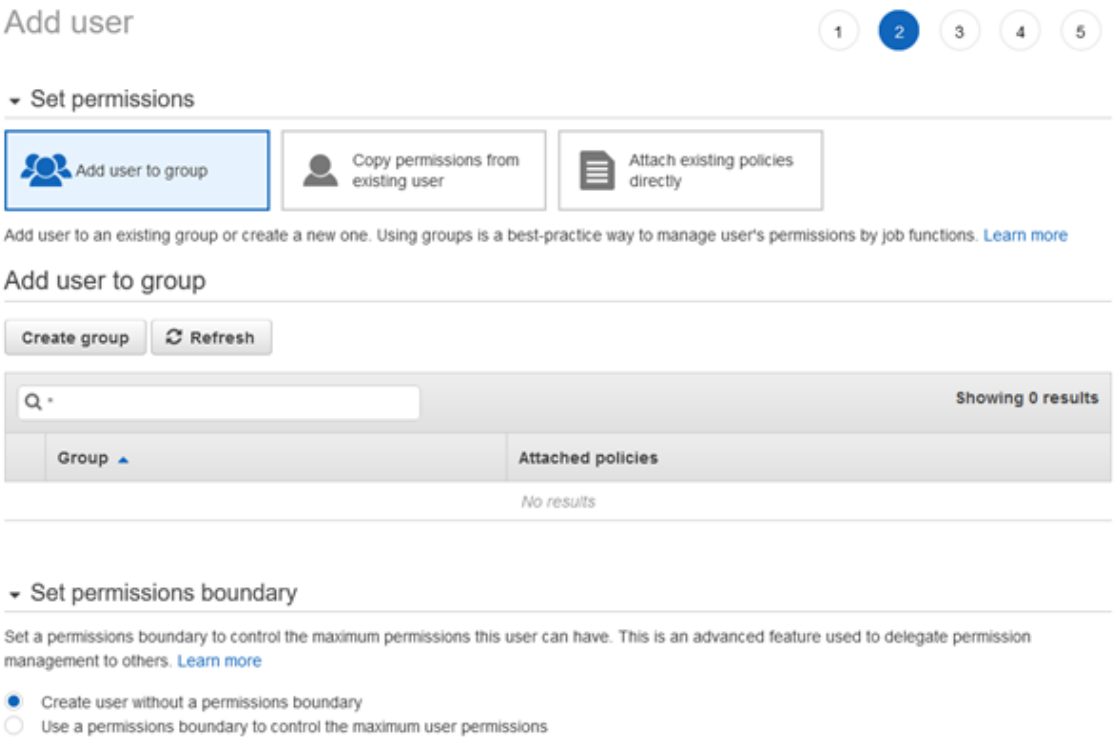


Follow the steps as illustrated below to add a new user for the inventory.

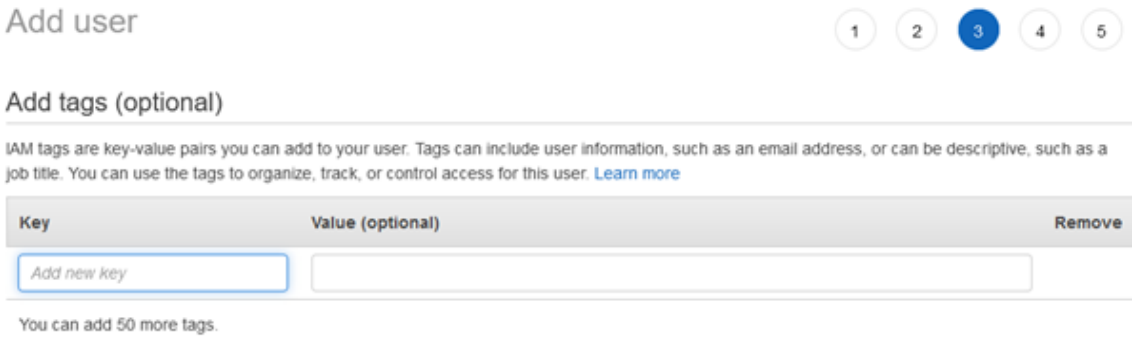
1)


Add user
1 2 3 4 5
Set user details
You can add multiple users at once with the same access type and permissions. Learn more
User name*
RVDataHubInventory
Add another user
Select AWS access type
Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. Learn more
Access type*
Programmatic access
Enables an access key ID and secret access key for the AWS API, CLI, SDK, and other development tools.
AWS Management Console access
Enables a password that allows users to sign-in to the AWS Management Console.

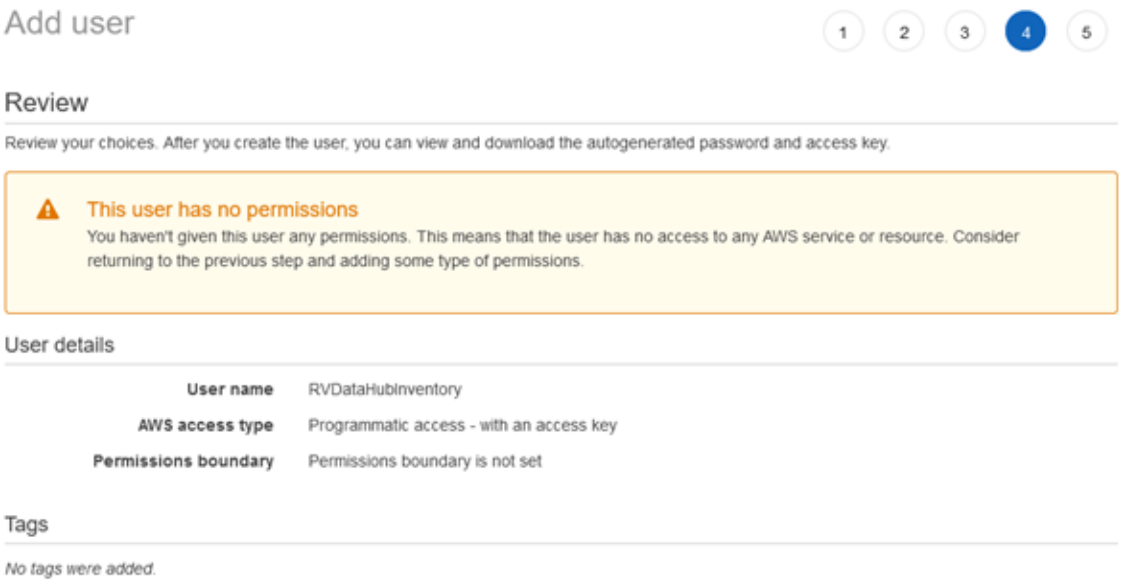
2)


Add user
1 2 3 4 5
Set permissions
Add user to group
Copy permissions from existing user
Attach existing policies directly
Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. Learn more
Add user to group
Create group
Refresh
Showing 0 results
Group
Attached policies
No results
Set permissions boundary
Set a permissions boundary to control the maximum permissions this user can have. This is an advanced feature used to delegate permission management to others. Learn more
Create user without a permissions boundary
Use a permissions boundary to control the maximum user permissions

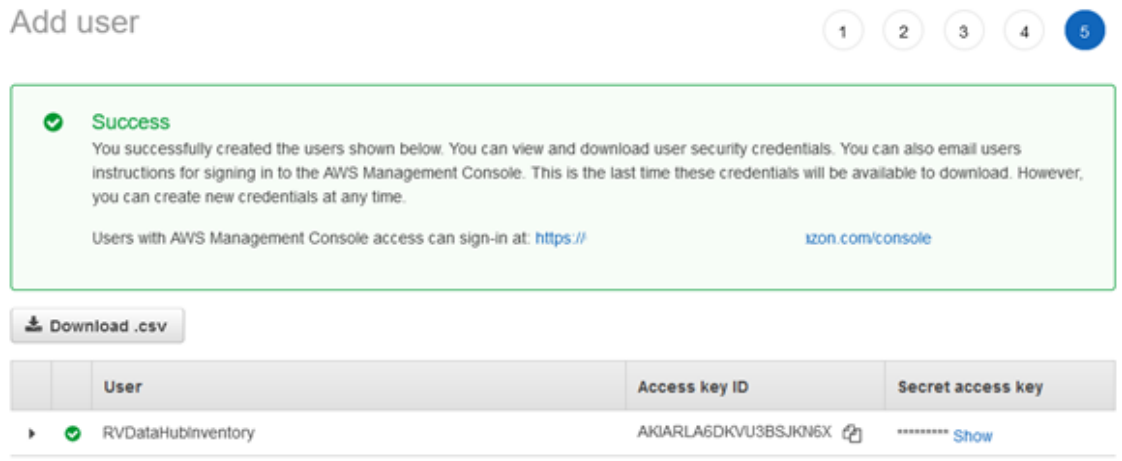
3)


Add user
1 2 3 4 5
Add tags (optional)
IAM tags are key-value pairs you can add to your user. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this user. Learn more
Key
Value (optional)
Remove
Add new key
You can add 50 more tags.

4)



5)

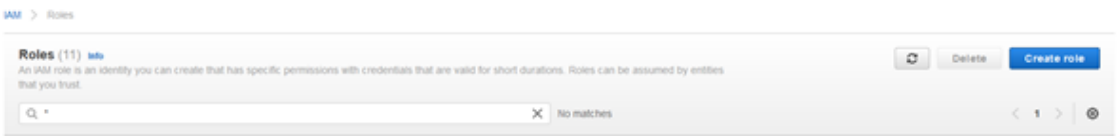


- Only allow programmatic access for the user.
- Permission assignment will be done later.
- Once the user is created, download the Access Key and the Secret Key as `.csv` file.
- Store the `.csv` file in a secure location.

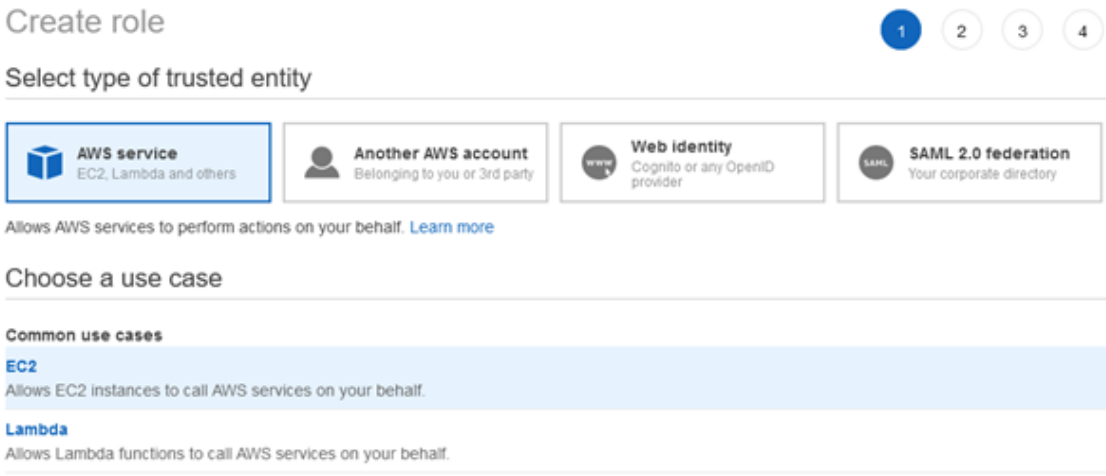
Role Setup

To add a new role, navigate back to the IAM console and then select roles. Follow the steps below in order to add a new role.

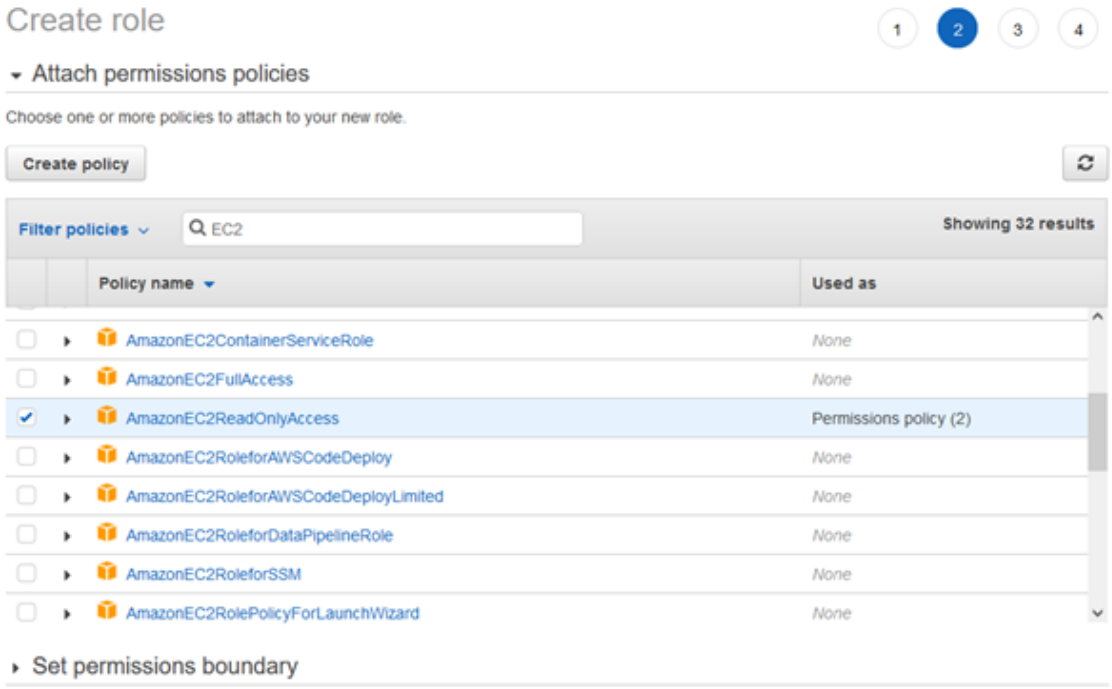
1)


IAM > Roles
Roles (11) Info
An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.
Delete
Create role
No matches

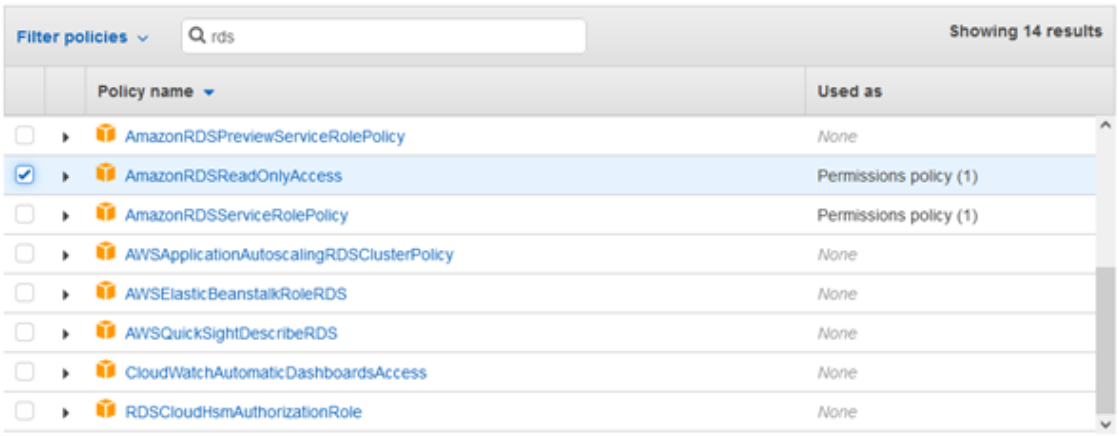
2)


Create role
1
2
3
4
Select type of trusted entity
AWS service
EC2, Lambda and others
Another AWS account
Belonging to you or 3rd party
Web identity
Cognito or any OpenID provider
SAML 2.0 federation
Your corporate directory
Allows AWS services to perform actions on your behalf. Learn more
Choose a use case
Common use cases
EC2
Allows EC2 instances to call AWS services on your behalf.
Lambda
Allows Lambda functions to call AWS services on your behalf.

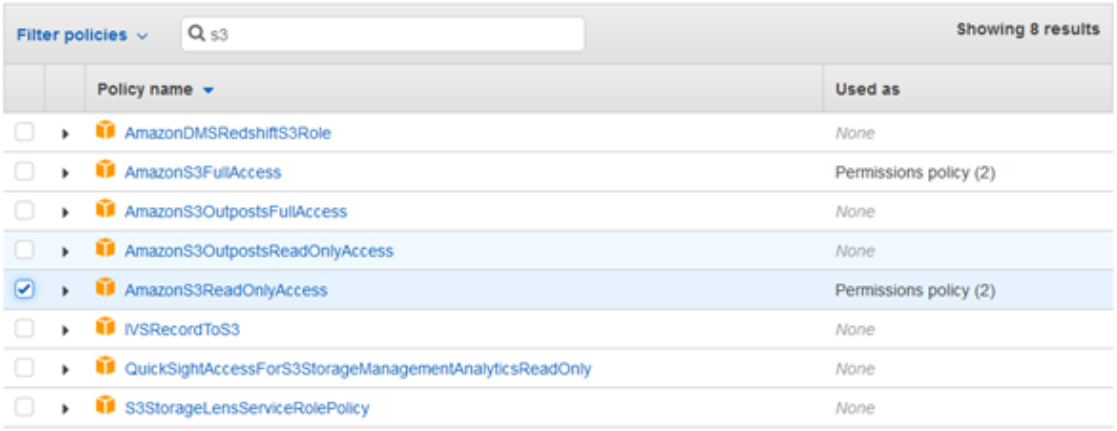
3)


Create role
1
2
3
4
Attach permissions policies
Choose one or more policies to attach to your new role.
Create policy
Filter policies
EC2
Showing 32 results
Policy name
Used as
AmazonEC2ContainerServiceRole
None
AmazonEC2FullAccess
None
AmazonEC2ReadOnlyAccess
Permissions policy (2)
AmazonEC2RoleforAWSCodeDeploy
None
AmazonEC2RoleforAWSCodeDeployLimited
None
AmazonEC2RoleforDataPipelineRole
None
AmazonEC2RoleforSSM
None
AmazonEC2RolePolicyForLaunchWizard
None
Set permissions boundary

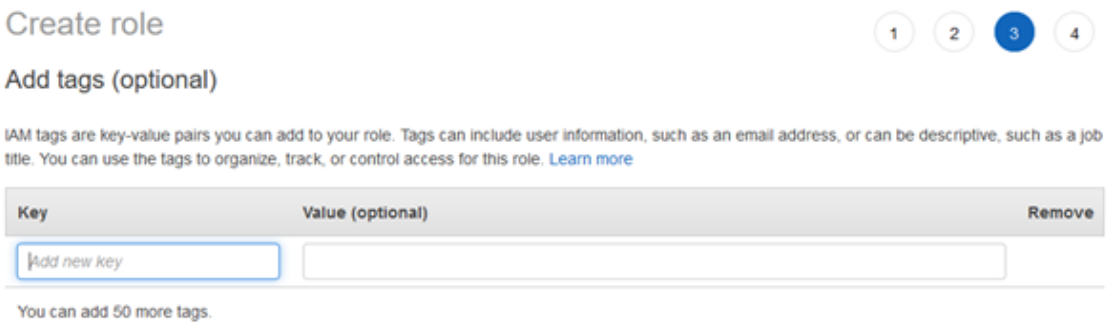
4)


Filter policies
rds
Showing 14 results
Policy name
Used as
AmazonRDSPreviewServiceRolePolicy
None
AmazonRDSReadOnlyAccess
Permissions policy (1)
AmazonRDSServiceRolePolicy
Permissions policy (1)
AWSApplicationAutoscalingRDSClusterPolicy
None
AWSElasticBeanstalkRoleRDS
None
AWSQuickSightDescribeRDS
None
CloudWatchAutomaticDashboardsAccess
None
RDSCloudHsmAuthorizationRole
None

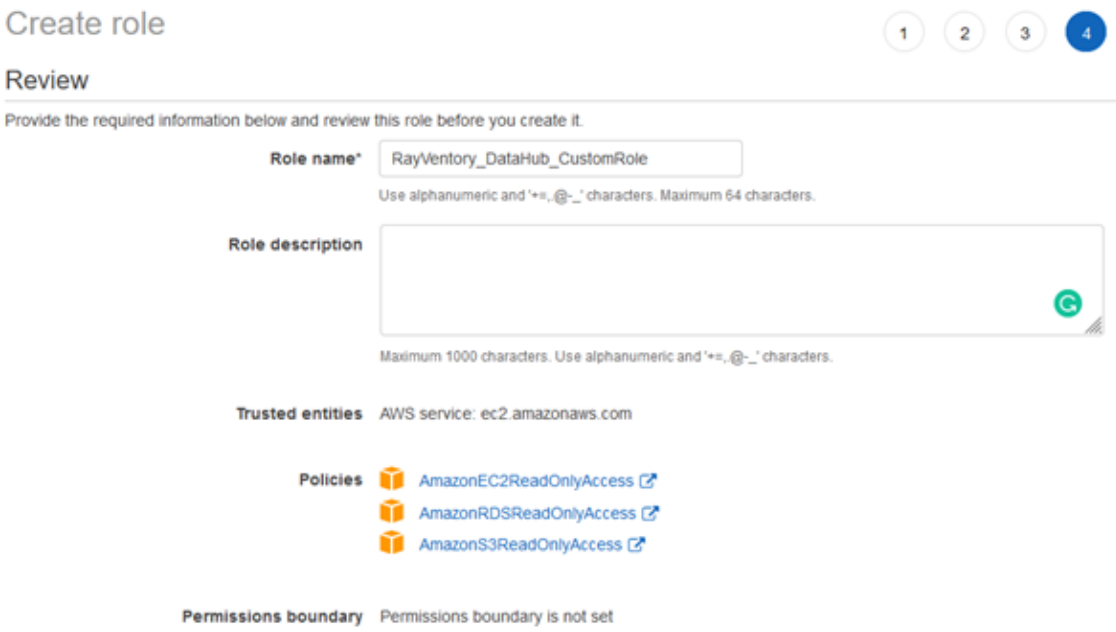
5)


Filter policies
s3
Showing 8 results
Policy name
Used as
AmazonDMSRedshiftS3Role
None
AmazonS3FullAccess
Permissions policy (2)
AmazonS3OutpostsFullAccess
None
AmazonS3OutpostsReadOnlyAccess
None
AmazonS3ReadOnlyAccess
Permissions policy (2)
IVSRecordToS3
None
QuickSightAccessForS3StorageManagementAnalyticsReadOnly
None
S3StorageLensServicePolicy
None

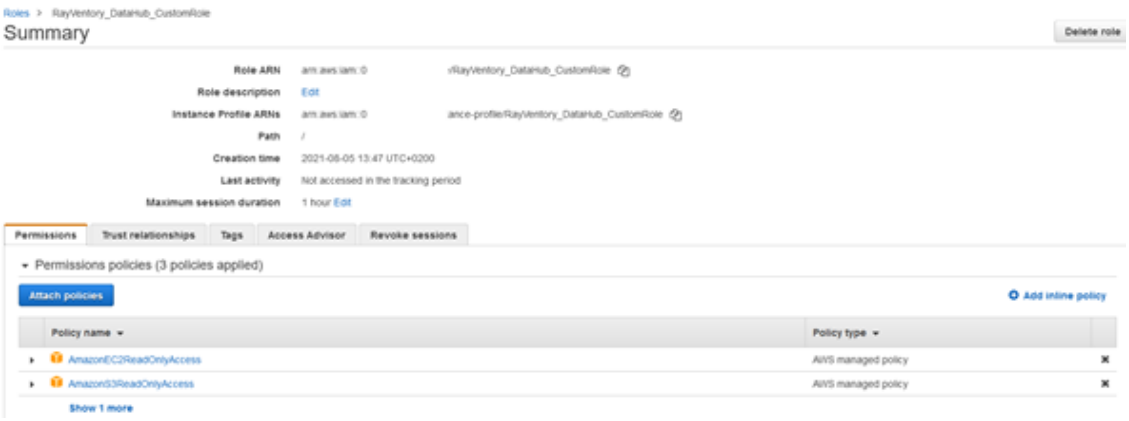
6)


Create role
1
2
3
4
Add tags (optional)
IAM tags are key-value pairs you can add to your role. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this role. Learn more
Key
Value (optional)
Remove
Add new key
You can add 50 more tags.

7)



8)



Create a new role and attach the following managed policy to the role:

- `AmazonEC2ReadOnlyAccess` (if also using the other AWS connectors also attach the `AmazonRDSReadOnlyAccess` and the `AmazonS3ReadOnlyAccess` policies to the role).

Edit the Trust Relationship to point to the parent user account.

Copy the Role ARN for the next step.

Assign User Account to the Role

At this step, assign the permission to use **AssumeRole** to the user account created in the first step. AssumeRole is an action available under the AWS Security Token service that returns a set of temporary security credentials that can be used to access the AWS resources. These

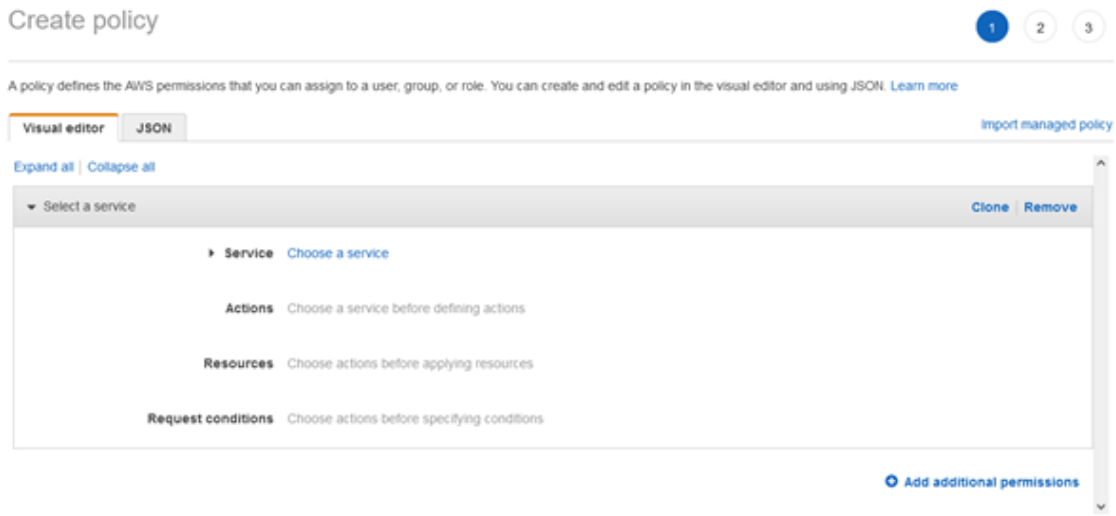
temporary credentials consist of an access key ID, a secret access key, and a security token.

To assign the permission navigate back to **IAM** > **Users**. Select the user created in the previous step. Once selected click on the Add permissions button located in the Permissions tab. This will open the Grant permissions page. Follow the steps to grant the required permissions.

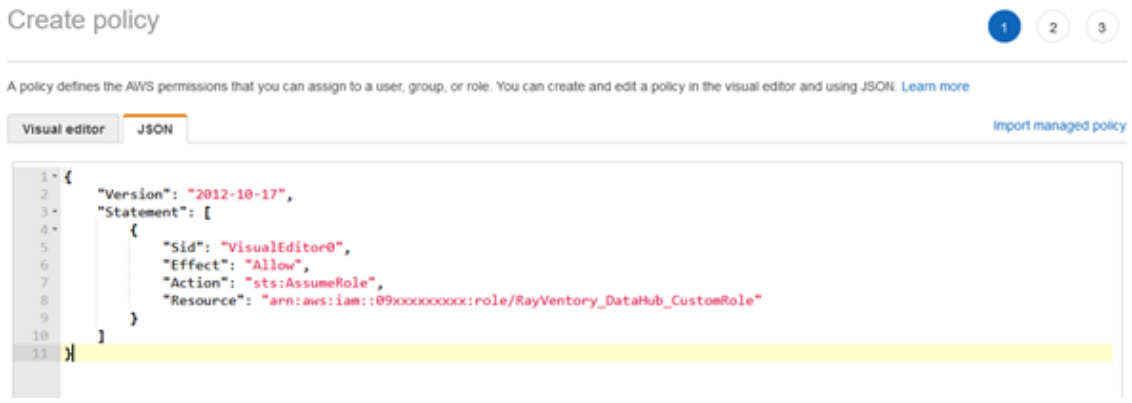
1)

2)

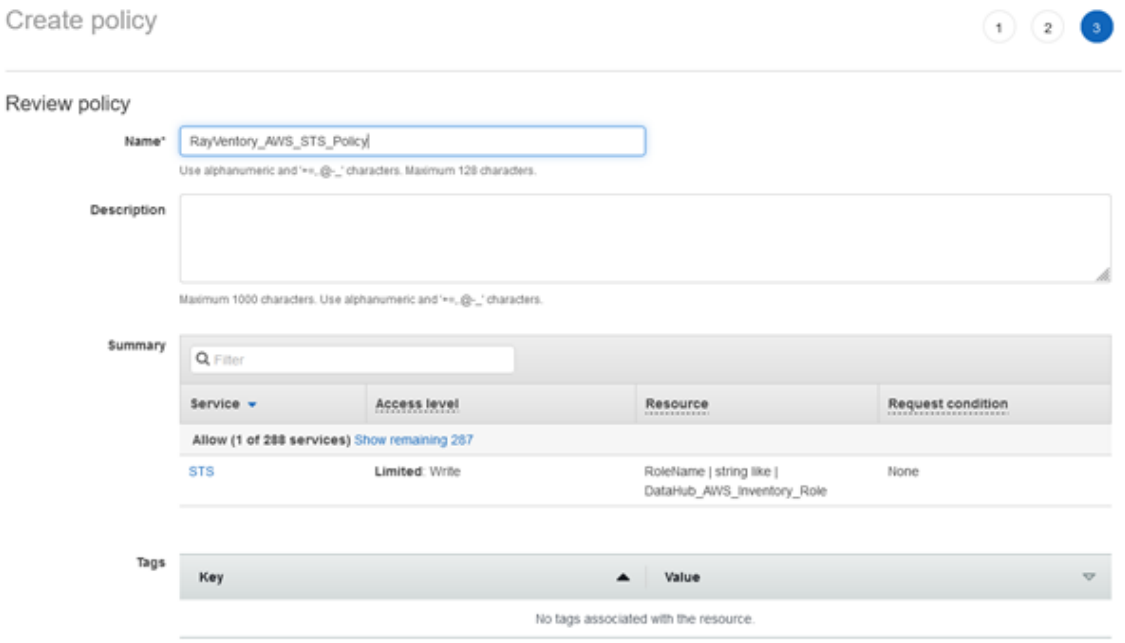
3)



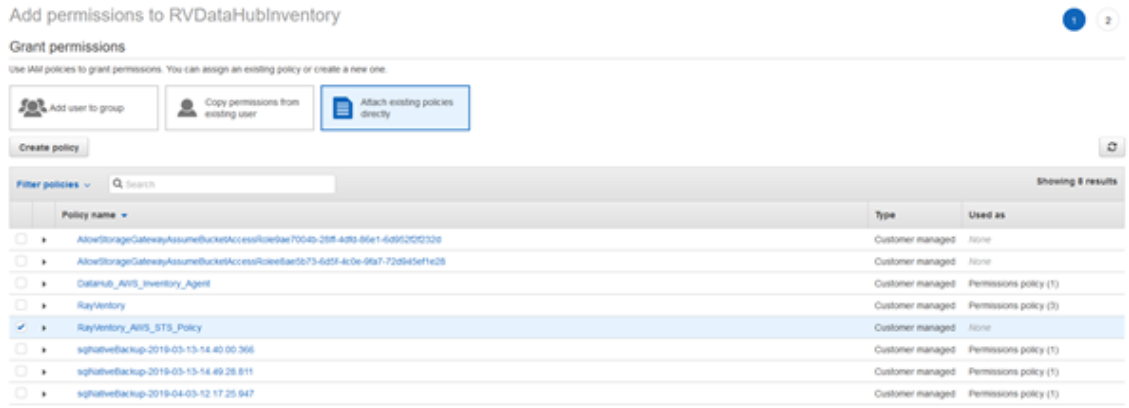
4)



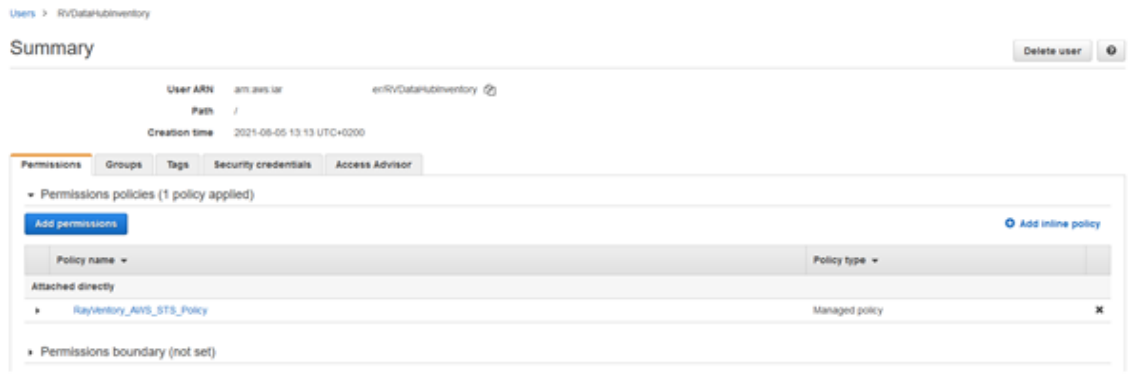
5)



6)

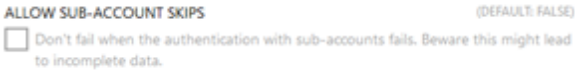


7)

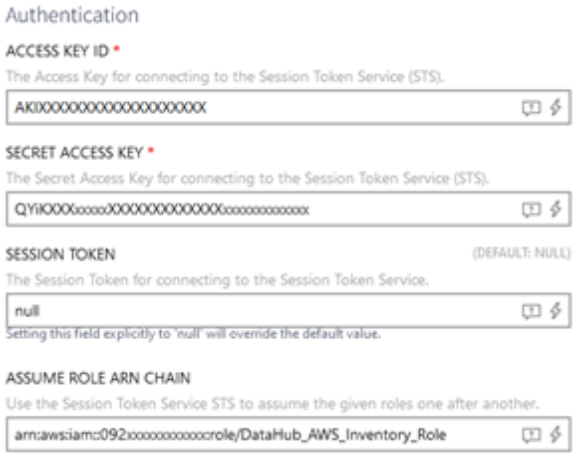


Connector Setup

In order for the RayVentory Data Hub AWS EC2 connector to connect and inventory an EC2 environment it is necessary to provide the following configuration parameters.



- The RayVentory Data Hub agent is using the authentication parameters to access the AWS account. In case of sub-accounts, the agent tries to authenticate against them. If "**ALLOW SUB-ACCOUNT SKIPS**" checkbox is checked, the agent will ignore failed sub-account authentication and continue with the inventory.



- For the inventory it is recommended to setup a custom inventory account underneath the parent AWS account. It is required to provide the **ACCESS KEY ID** and the **SECRET ACCESS KEY** for the account.
- It is recommended to setup a custom inventory role. The permissions required for the inventory are assigned to this role. When connecting, the user account is authenticated using the **ACCESS KEY** and the **SECRET KEY**. Afterwards the user account uses the **ASSUME ROLE ARN CHAIN** in order to inventory the respective service.
- It is possible to use a session token for the connection with the Session Token Service by entering the token into the **SESSION TOKEN** field. If the value of this field is `null`, the default value will be used.

- While not mandatory, users can specify a connection timeout for authentication requests.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Sub-account Skips

This parameter determines whether a task will fail if the authentication with a sub-account fails.

Technical Name	`allow_sub_account_skips`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false, true`

Be aware:
If a task does not fail when the authentication with a sub-account fails, this might lead to incomplete data.

AWS Regions

This parameter contains a comma-separated list of AWS-regions from where to fetch the data. Omit this parameter or set it to an empty string in order to fetch data from all active regions.

Technical Name	`regions`
Category	Functional
Type	Array
Default Value	`{empty}`
Example Values	`eu-west-1,us-east-2`

A list with all available regions can be found at: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html.

Fetch Images

This parameter determines whether the fetching of images is activated or deactivated.

Technical Name	`fetch_images`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Authentication

Access Key ID

This parameter contains the Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`access_key_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Secret Access Key

This parameter contains the Secret Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`secret_access_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Session Token

This parameter contains the Session Token for the connection to the Session Token Service (STS).

Technical Name	`session_token`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Assume Role ARN Chain

Use the Session Token Service (STS) to assume the given roles one after another.

Technical Name	`master_assume_role_arn_chain`
Category	Authentication
Type	String
Default Value	
Example Values	`arn:aws:iam::123456789012:role/ROLE_NAME`

The initial credentials might not have the required permissions for the job. One can perform a privilege escalation with the Assume Role request via STS. For more information on the AWS authentication process read the official documentation. Using a list of roles will chain the assumptions together. The connector gets session credentials for the first role with the initial credentials. Then, with the session credentials it assumes the second role and so on. The last session credentials are used for the actual API accesss. When aggregating data of an Organizational Unit, this chain is used only for the master account of the OU.

External ID

This parameter can be used in order to provide an external ID for cross-account access with the Session Token Service (STS).

Technical Name	`assume_external_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null, 987654321098`

The External ID is used with ever role assumption of the Assume Role ARN Chain. Read about the AWS authentication mechanism in the official documentation.

List Accounts

This parameter defines the accounts in the OU from which the data will be fetched.

Technical Name	`sub_account_assume_role_arn_chain`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null` `arn:aws:iam::{accountId}:role/ROLE_NAME`

When managing a large number of accounts one can aggregate them in an Organizational Unit (OU). Instead of running the connector for every single account, the connector can fetch the list of accounts from the OU and aggregate the data automatically. When setting this parameter, the last role in the Assume Role Chain must have enough privileges for the ListAccount request. The initial credentials (Access Key ID, Secret Access Key, and Session Token) are reused for the first authentication, but for the cross-account access to the sub-accounts this chain is used instead. Use the placeholder {accountId} in the chain which is replaced by the sub-account IDs at run-time. Leave the chain empty of null to fetch data only from the master account.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Extracted Data

Endpoint:	`https://ec2.{region}.amazonaws.com/`
Description:	The connector will connect to the regional endpoints of the specified regions.
Documentation:	https://docs.aws.amazon.com/general/latest/gr/rande.html

As part of the EC2 inventory following data pertaining to the following attributes is gathered by the RayVentory Data Hub agent:

awsec2_images

```
[awsec2_images_raw} (
	[imageId] [nvarchar](max) NULL,
	[name] [nvarchar](max) NULL,
	[description] [nvarchar](max) NULL,
	[location] [nvarchar](max) NULL,
	[region] [nvarchar](max) NULL,
	[creationDate] [nvarchar](max) NULL,
	[platform] [nvarchar](max) NULL,
	[owner] [nvarchar](max) NULL,
	[virtualizationType] [nvarchar](max) NULL,
	[hypervisor] [nvarchar](max) NULL,
)
```

awsec2_instances

```
[awsec2_instances_raw](
	[instanceId] [nvarchar](max) NULL,
	[accountId] [nvarchar](max) NULL,
	[state] [nvarchar](max) NULL,
	[privateDns] [nvarchar](max) NULL,
	[key] [nvarchar](max) NULL,
	[instanceType] [nvarchar](max) NULL,
	[region] [nvarchar](max) NULL,
	[tenancy] [nvarchar](max) NULL,
	[platform] [nvarchar](max) NULL,
	[virtualizationType] [nvarchar](max) NULL,
	[hypervisor] [nvarchar](max) NULL,
	[imageId] [nvarchar](max) NULL,
	[cores] [nvarchar](max) NULL,
	[threadsPerCore] [nvarchar](max) NULL,
	[privateIpAddress] [nvarchar](max) NULL,
	[publicIpAddress] [nvarchar](max) NULL,
)
```

awsec2_tags

```
[awsec2_tags_raw](
      [instanceId] [nvarchar](max) NULL,
      [key] [nvarchar](max) NULL,
      [value] [nvarchar](max) NULL,
)
```

Tables

Table	Column	Type
images	• creationDate • description • hypervisor • imageId • location • name • owner • platform • region • virtualizationType	• String • String • String • String • String • String • String • String • String • String
instances	• accountId • cores • hypervisor • imageId • instanceId • instanceType • key • platform • privateDns • privateIpAddress • publicDns • publicIpAddress • region • state • tenancy • threadsPerCore • virtualizationType	• String • Integer • String • String • String • String • String • String • String • String • String • String • String • String • String • Integer • String
tags	• instanceID • key • value	• String • String • String

Amazon Organizations

This connector connects to Amazon Organizations using the AWS Organizations API and fetches information about accounts, and account tags.

Prerequisites

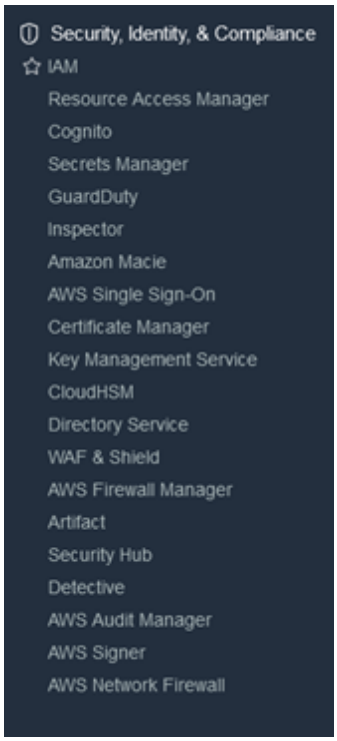
The connector uses the AWS Java SDK 2. To run the connector the `'AWSOrganizationsReadOnlyAccess'` policy or similar with required permissions is required. The required permissions are `'organizations:Describe'`, `'organizations:List'`, and `'account:GetAlternateContact'`.

Identity and Access Management

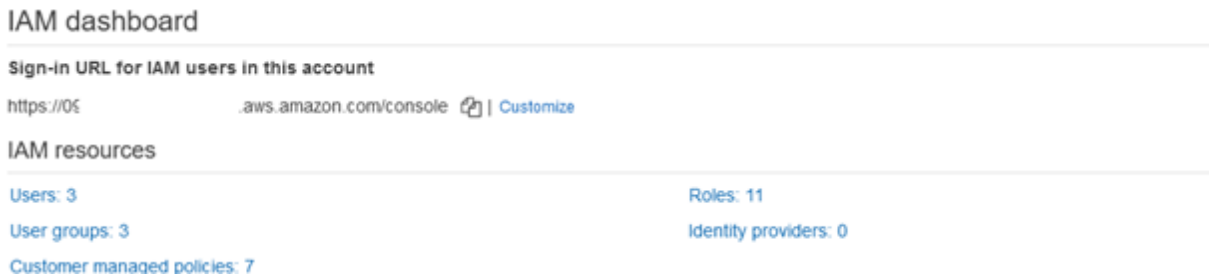
The AWS Identity and Access Management (IAM) feature enables its users to manage access to AWS services and resources under the respective AWS user account. Furthermore, it allows users to set the interconnection between AWS accounts. IAM includes four major areas/components:

- **Users:** AWS accounts
- **Groups:** A collection of user accounts under one set of permissions
- **Roles:** A role can be created and assigned to AWS resources
- **Policies:** A document that defines one or more permissions

Use the Management Console to access the IAM login to the AWS account. After the login select IAM under the Security, Identity, & Complicance category of the AWS Service list.



Once the IAM dashboard is loaded select the Users from the IAM resources.



To add a new role, navigate back to the IAM console, select Roles, and click on the **Create new** button.

Attach the following managed policy to the role:

- `AWSOrganizationsReadOnlyAccess`

Edit the Trust Relationship to point to the parent user account.

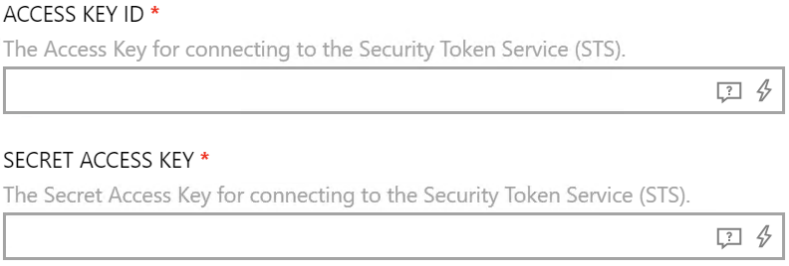
Copy the Role ARN for the next step.

Assign User Account to the Role

At this step, assign the permission to use **AssumeRole** to the user account created in the first step. AssumeRole is an action available under the AWS Security Token service that returns a set of temporary security credentials that can be used to access the AWS resources. These temporary credentials consist of an access key ID, a secret access key, and a security token.

To assign the permission navigate back to **IAM** > **Users**. Select the user created in the previous step. Once selected click on the **Add permissions** button located in the **Permissions** tab. This will open the **Grant permissions** page.

Connector Setup



- Enter the Access Key used to connect to the Security Token Service (STS) into the **ATHENA QUERY** field.
- Enter the Secret Access Key that is used to connect to the Security Token Service (STS) into the **WORKGROUP** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Access Key ID

This parameter contains the Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`access_key_id`
Category	Authentication

Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Secret Access Key

This parameter contains the Secret Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`secret_access_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Session Token

This parameter contains the Session Token for the connection to the Session Token Service (STS).

Technical Name	`session_token`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) the session credentials for the time of the execution.

Assume Role ARN Chain

Use the Session Token Service (STS) to assume the given roles one after another.

Technical Name	`master_assume_role_arn_chain`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`arn:aws:iam::123456789012:role/ROLE_NAME`

The initial credentials might not have the required permissions for the job. One can perform a privilege escalation with the Assume Role request via STS. For more information on the AWS authentication process read the official documentation. Using a list of roles will chain the assumptions together. The connector gets session credentials for the first role with the initial credentials. Then, with the session credentials it assumes the second role and so on. The last session credentials are used for the actual API accesss. When aggregating data of an Organizational Unit, this chain is used only for the master account of the OU.

External ID

This parameter can be used in order to provide an external ID for cross-account access with the Session Token Service (STS).

Technical Name	`assume_external_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null, 987654321098`

The External ID is used with ever role assumption of the Assume Role ARN Chain. Read about the AWS authentication mechanism in the official documentation.

Extracted Data

Endpoint:	`https://organizations.{region}.amazonaws.com/`
Description:	The connector will connect to the regional endpoints of the specified regions.
Documentation:	https://docs.aws.amazon.com/general/latest/gr/rande.html

Tables

Table	Column	Type
`accounts`	• `arn` • `email` • `id` • `joinedMethod` • `joinedTimestamp` • `name` • `orgUnitId` • `Status`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`
`tags`	• `accountID` • `key` • `value`	• `String` • `String` • `String`

Amazon Relational Database Service

Amazon Relation Database Service or RDS is a web service offered by Amazon Web Services under the category Database. AWS RDS service offers memory, performance, or I/O optimized database engines including SQL Server, Oracle, PostgreSQL, MySQL, Amazon Aurora, and MariaDB.

RayVentory Data Hub AWS RDS connector allows for the inventory of RDS instances under an AWS account and fetches information about all instances hosted at Amazon Relational Database Services (RDS). The connector uses the AWS Java SDK.

Be aware:
The underlying AWS Java SDK behaves strangely with proxies. Only the system parameter 'http.proxyHost' and 'http.proxyPort' are used for both HTTP and HTTPS connections. Setting 'https.proxyHost' and 'https.proxyPort' will have no effect. Socks proxies are not supported by the AWS Java SDK. Setting 'socksProxyHost' and 'socksProxyPort' will have no effect.

Prerequisites

Configuring AWS for RDS

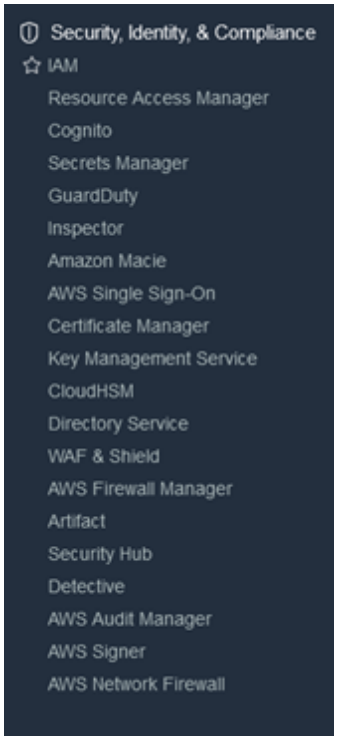
This section of the document provides basic information on how to configure an AWS account to enable the RayVentory Data Hub agent to authenticate against the account and inventory the data from the Amazon Relational Database Service.

Identity and Access Management

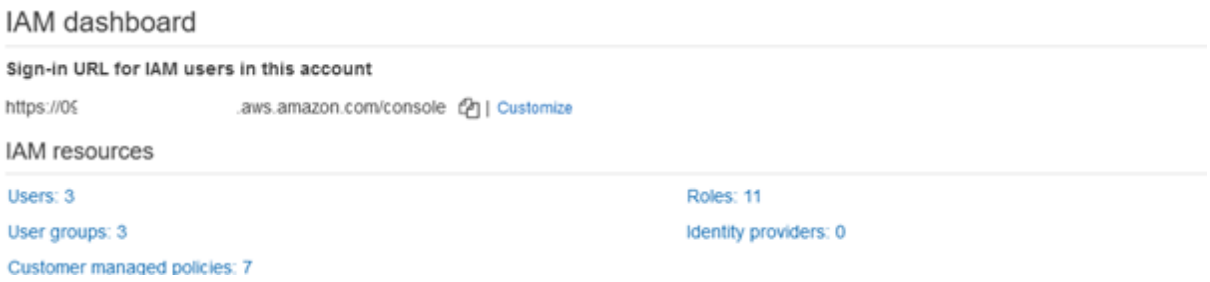
The AWS Identity and Access Management (IAM) feature enables its users to manage access to AWS services and resources under the respective AWS user account. Furthermore, it allows users to set the interconnection between AWS accounts. IAM includes four major areas/components:

- **Users:** AWS accounts
- **Groups:** A collection of user accounts under one set of permissions
- **Roles:** A role can be created and assigned to AWS resources
- **Policies:** A document that defines one or more permissions

Use the Management Console to access the IAM login to the AWS account. After the login select IAM under the Security, Identity, & Complicance category of the AWS Service list.

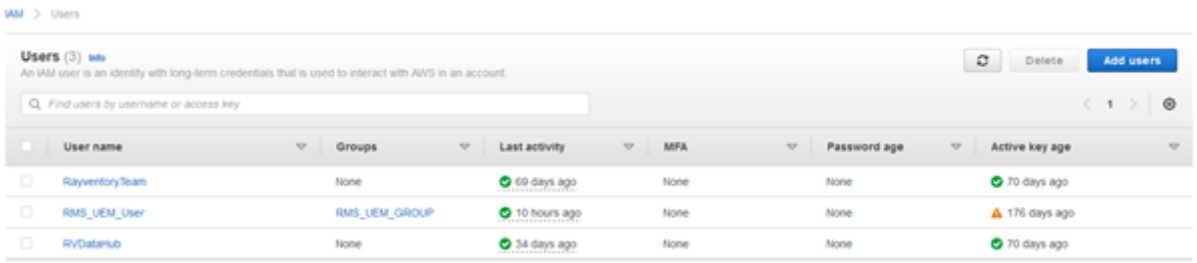


Once the IAM dashboard is loaded select the Users from the IAM resources.



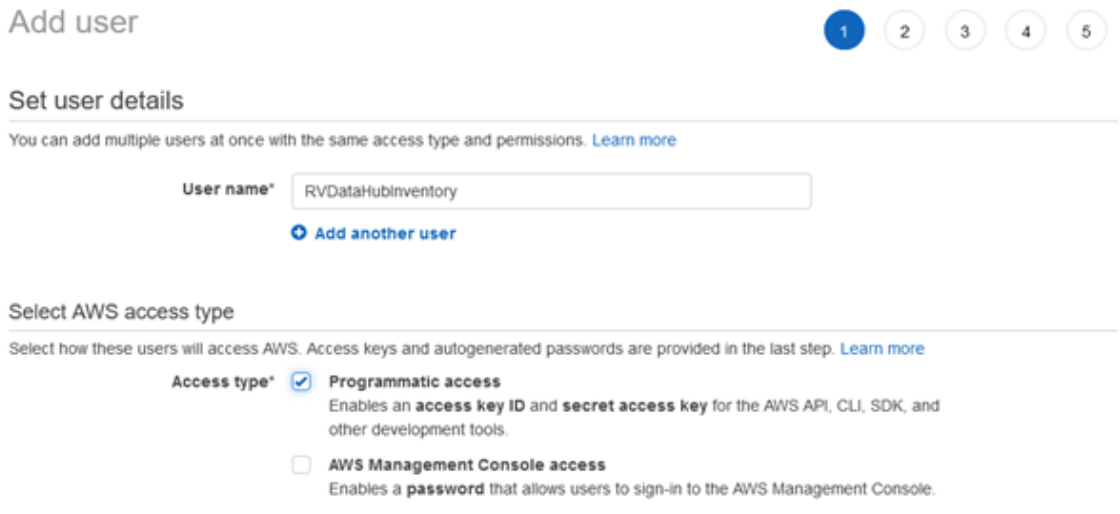
User Setup

Click on the **Add users** button on the **IAM -> Users** dashboard.

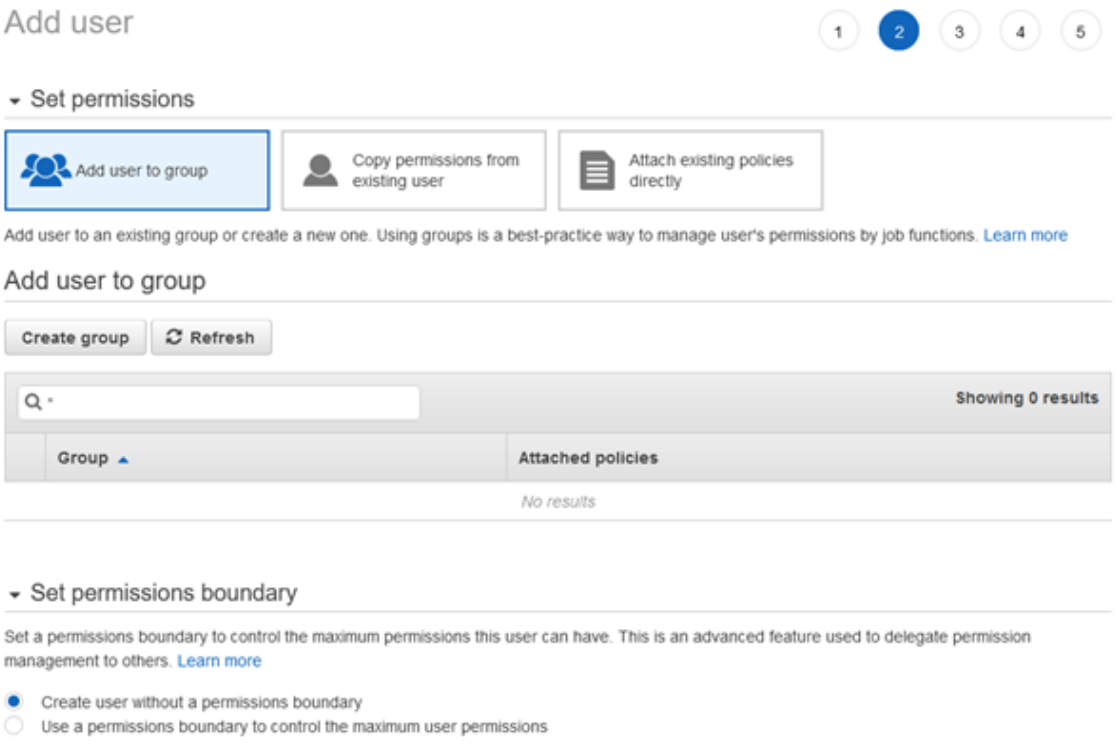


Follow the steps as illustrated below to add a new user for the inventory.

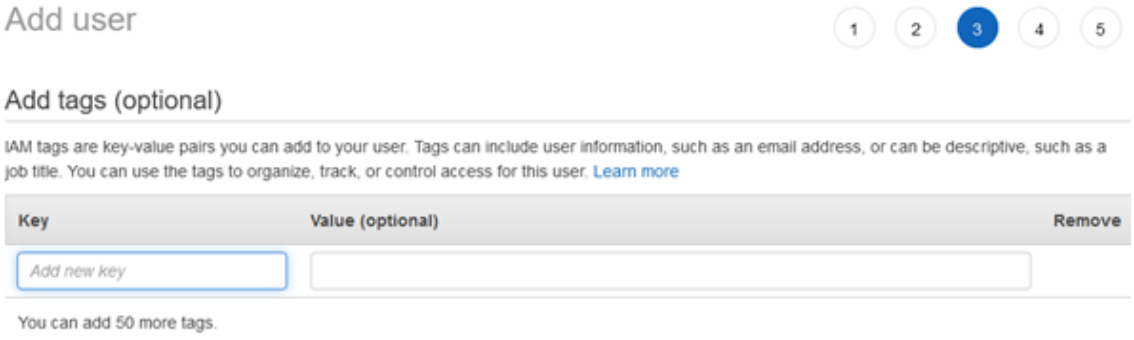
1)


Add user
1 2 3 4 5
Set user details
You can add multiple users at once with the same access type and permissions. Learn more
User name*
RVDataHubInventory
Add another user
Select AWS access type
Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. Learn more
Access type*
Programmatic access
Enables an access key ID and secret access key for the AWS API, CLI, SDK, and other development tools.
AWS Management Console access
Enables a password that allows users to sign-in to the AWS Management Console.

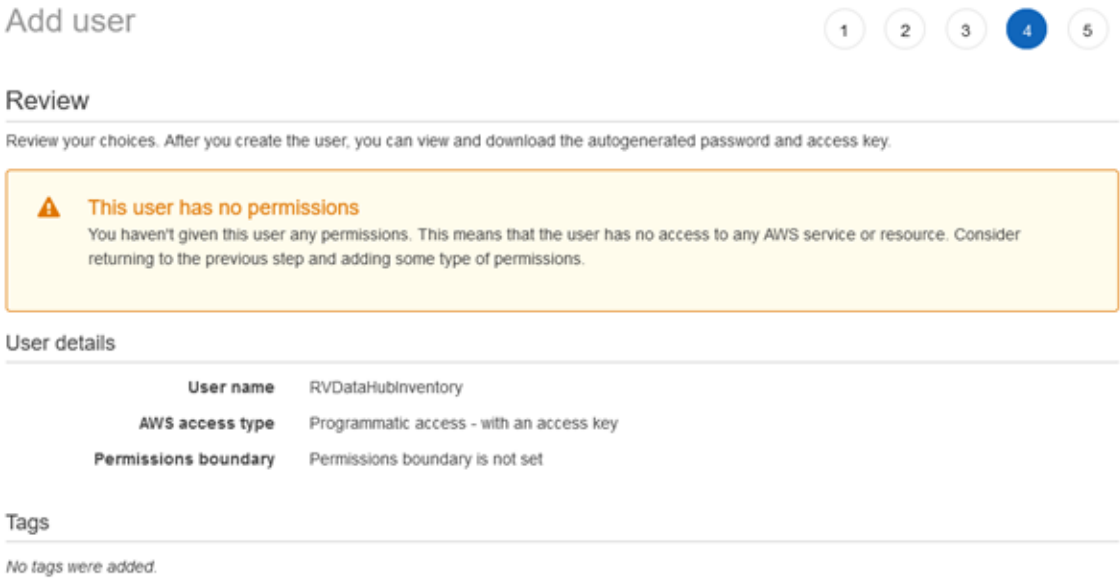
2)


Add user
1 2 3 4 5
Set permissions
Add user to group
Copy permissions from existing user
Attach existing policies directly
Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. Learn more
Add user to group
Create group
Refresh
Showing 0 results
Group
Attached policies
No results
Set permissions boundary
Set a permissions boundary to control the maximum permissions this user can have. This is an advanced feature used to delegate permission management to others. Learn more
Create user without a permissions boundary
Use a permissions boundary to control the maximum user permissions

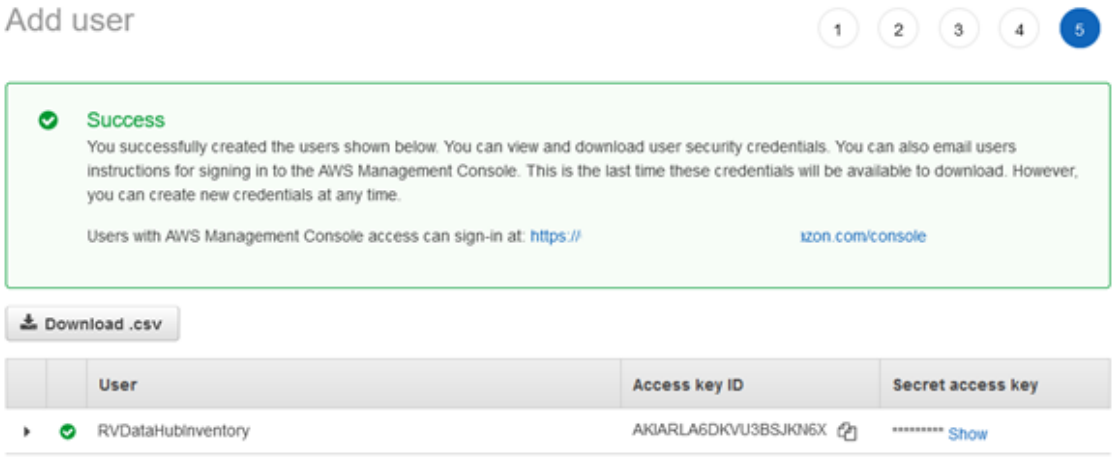
3)


Add user
1 2 3 4 5
Add tags (optional)
IAM tags are key-value pairs you can add to your user. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this user. Learn more
Key
Value (optional)
Remove
Add new key
You can add 50 more tags.

4)


Add user
1 2 3 4 5
Review
Review your choices. After you create the user, you can view and download the autogenerated password and access key.
This user has no permissions
You haven't given this user any permissions. This means that the user has no access to any AWS service or resource. Consider returning to the previous step and adding some type of permissions.
User details
User name
RVDataHubInventory
AWS access type
Programmatic access - with an access key
Permissions boundary
Permissions boundary is not set
Tags
No tags were added.

5)

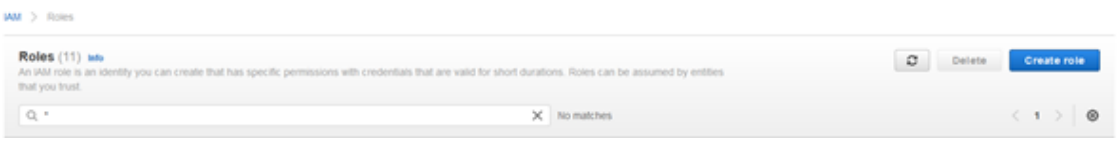

Add user
1 2 3 4 5
Success
You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.
Users with AWS Management Console access can sign-in at: https://
izon.com/console
Download .csv
User
Access key ID
Secret access key
RVDataHubInventory
AKIARLA6DKVU3BSJKN6X
Show

- Only allow programmatic access for the user.
- Permission assignment will be done later.
- Once the user is created, download the Access Key and the Secret Key as `.csv` file.
- Store the `.csv` file in a secure location.

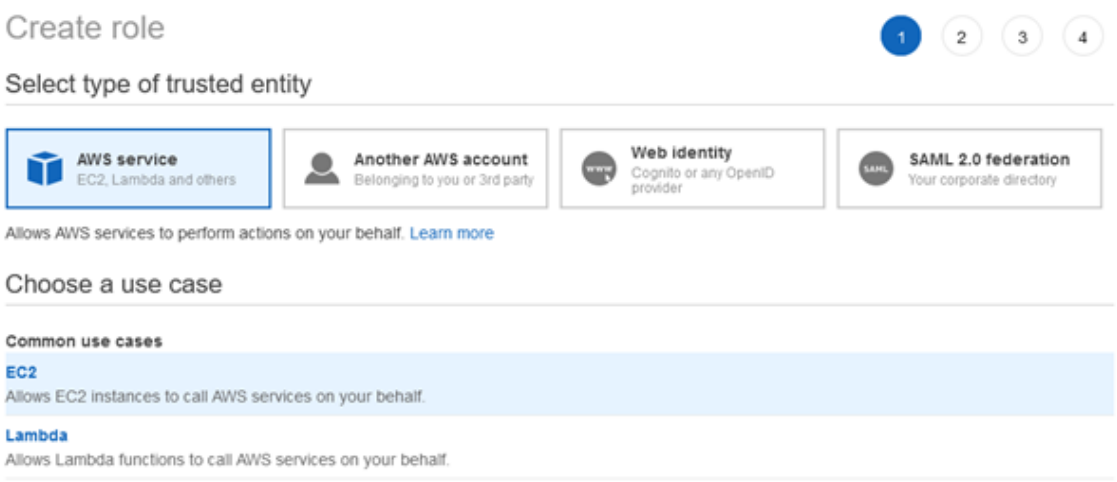
Role Setup

To add a new role, navigate back to the IAM console and then select roles. Follow the steps below in order to add a new role.

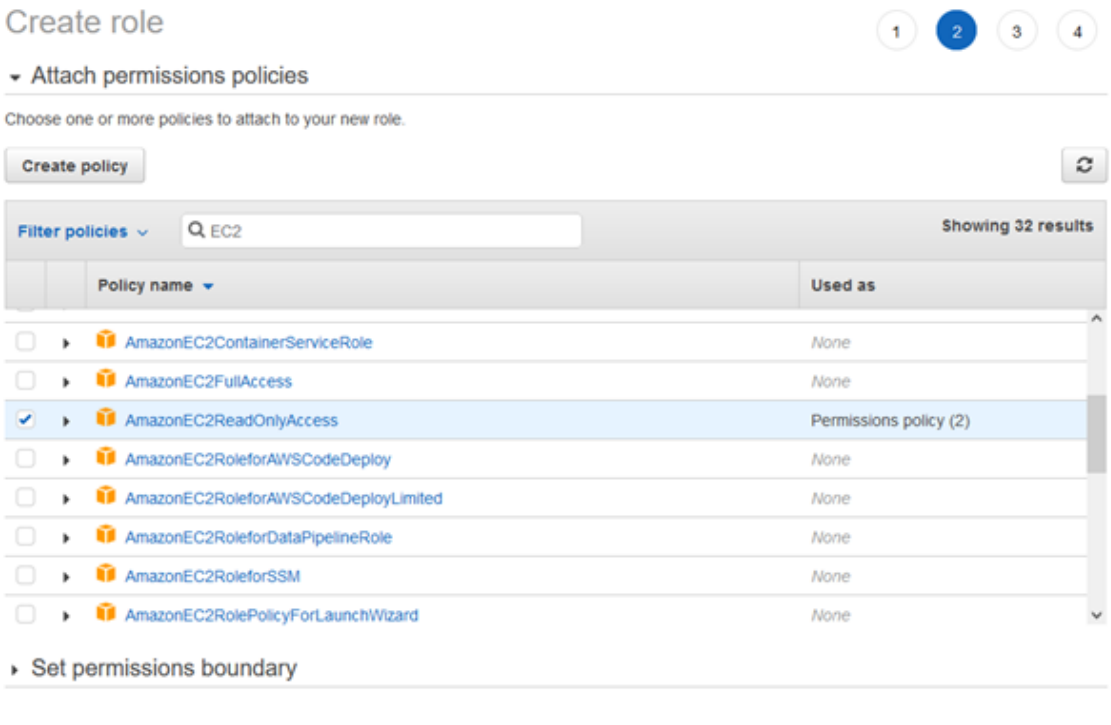
1)



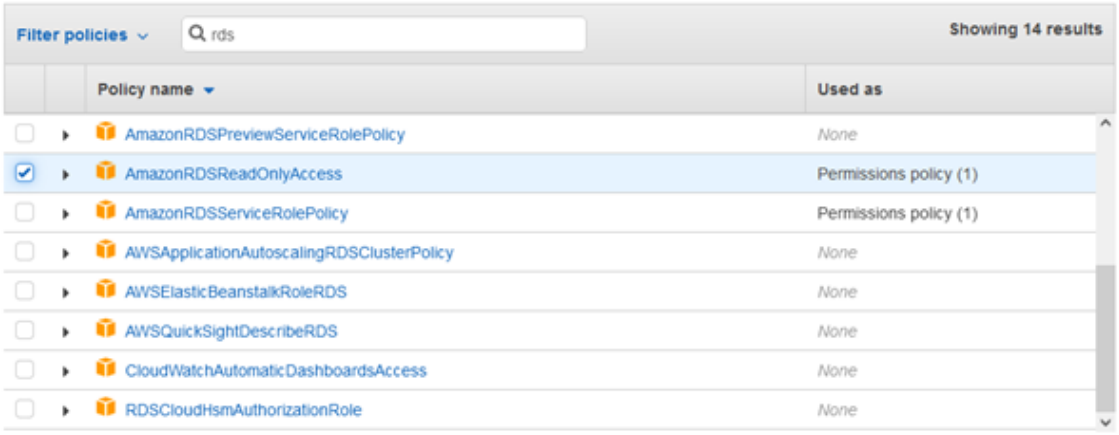
2)



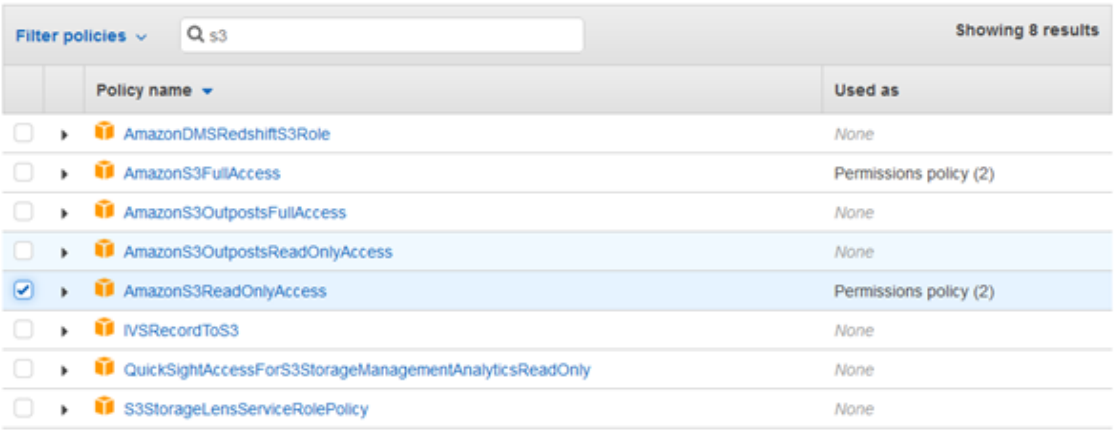
3)


Create role
1
2
3
4
Attach permissions policies
Choose one or more policies to attach to your new role.
Create policy
Filter policies
EC2
Showing 32 results
Policy name
Used as
AmazonEC2ContainerServiceRole
None
AmazonEC2FullAccess
None
AmazonEC2ReadOnlyAccess
Permissions policy (2)
AmazonEC2RoleforAWSCodeDeploy
None
AmazonEC2RoleforAWSCodeDeployLimited
None
AmazonEC2RoleforDataPipelineRole
None
AmazonEC2RoleforSSM
None
AmazonEC2RolePolicyForLaunchWizard
None
Set permissions boundary

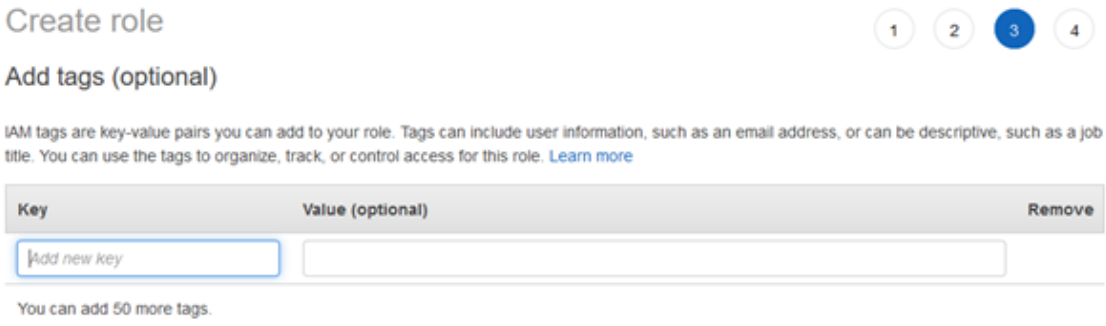
4)


Filter policies
rds
Showing 14 results
Policy name
Used as
AmazonRDSPreviewServiceRolePolicy
None
AmazonRDSReadOnlyAccess
Permissions policy (1)
AmazonRDSServiceRolePolicy
Permissions policy (1)
AWSApplicationAutoscalingRDSClusterPolicy
None
AWSElasticBeanstalkRoleRDS
None
AWSQuickSightDescribeRDS
None
CloudWatchAutomaticDashboardsAccess
None
RDSCloudHsmAuthorizationRole
None

5)

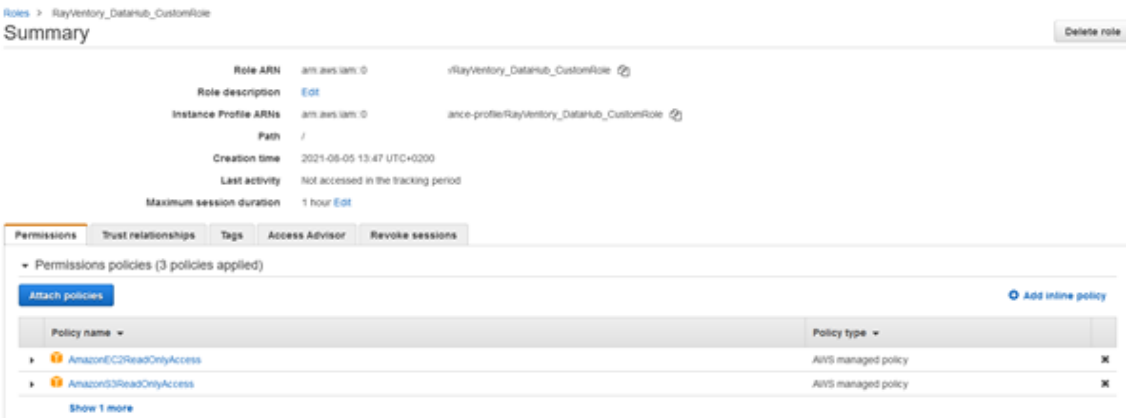

Filter policies
s3
Showing 8 results
Policy name
Used as
AmazonDMSRedshiftS3Role
None
AmazonS3FullAccess
Permissions policy (2)
AmazonS3OutpostsFullAccess
None
AmazonS3OutpostsReadOnlyAccess
None
AmazonS3ReadOnlyAccess
Permissions policy (2)
IVSRecordToS3
None
QuickSightAccessForS3StorageManagementAnalyticsReadOnly
None
S3StorageLensServiceRolePolicy
None

6)



7)

8)



Create a new role and attach the following managed policy to the role:

- AmazonRDSReadOnlyAccess (if also using the other AWS connectors also attach the AmazonEC2ReadOnlyAccess and the AmazonS3ReadOnlyAccess policies to the role).

Edit the Trust Relationship to point to the parent user account.

Copy the Role ARN for the next step.

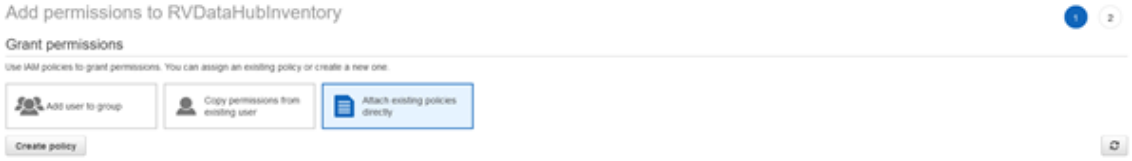
Assign User Account to the Role

At this step, assign the permission to use **AssumeRole** to the user account created in the first step. AssumeRole is an action available under the AWS Security Token service that returns a set of temporary security credentials that can be used to access the AWS resources. These temporary credentials consist of an access key ID, a secret access key, and a security token.

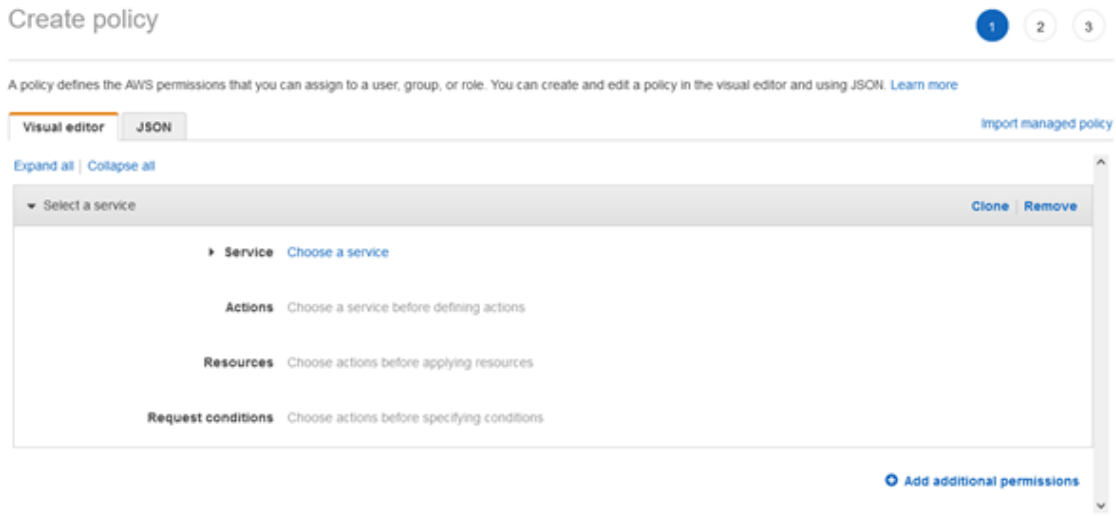
To assign the permission navigate back to **IAM** > **Users**. Select the user created in the previous step. Once selected click on the Add permissions button located in the Permissions tab. This will open the Grant permissions page. Follow the steps to grant the required permissions.

1)

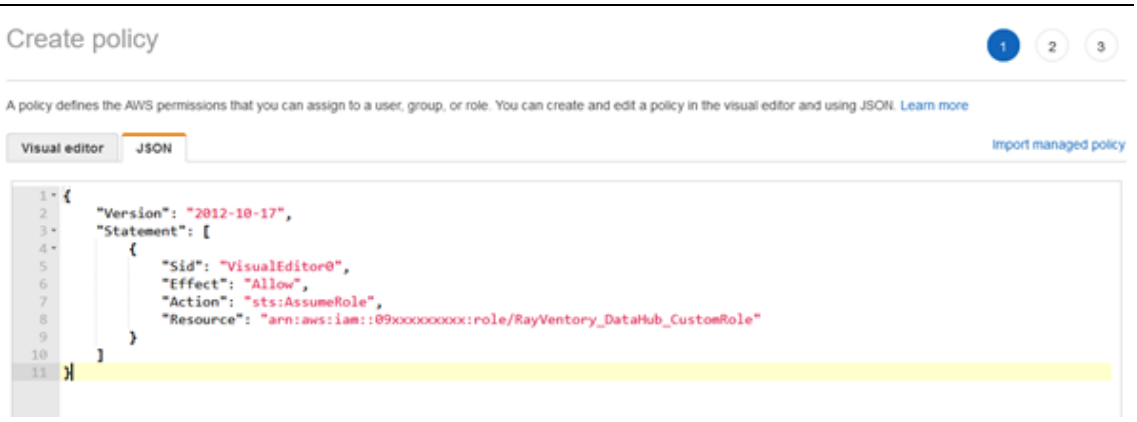
2)



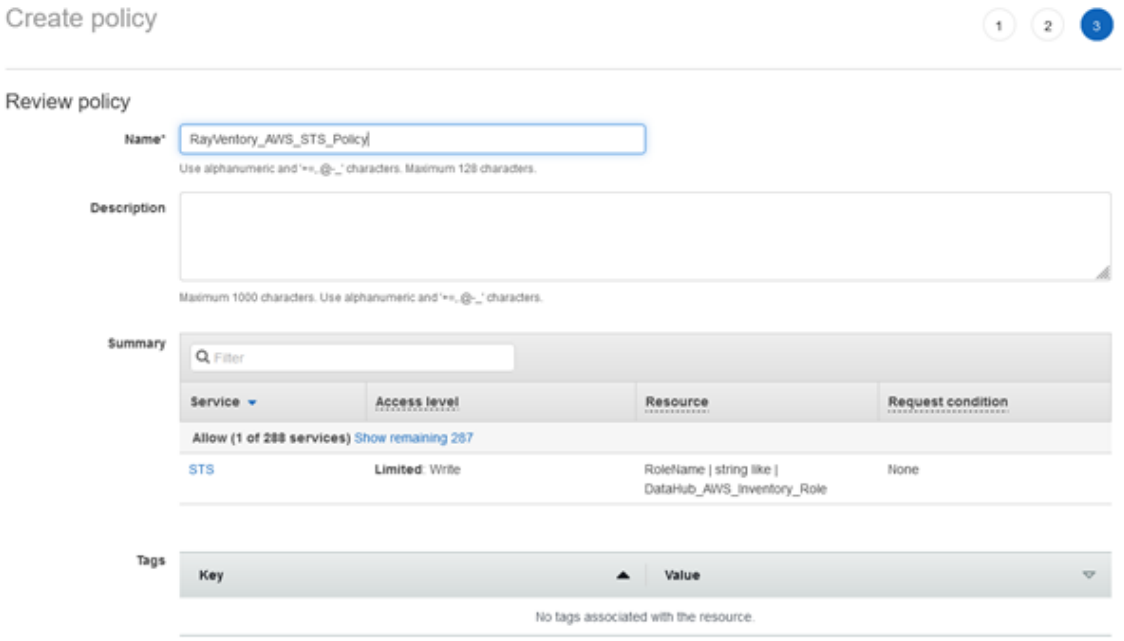
3)



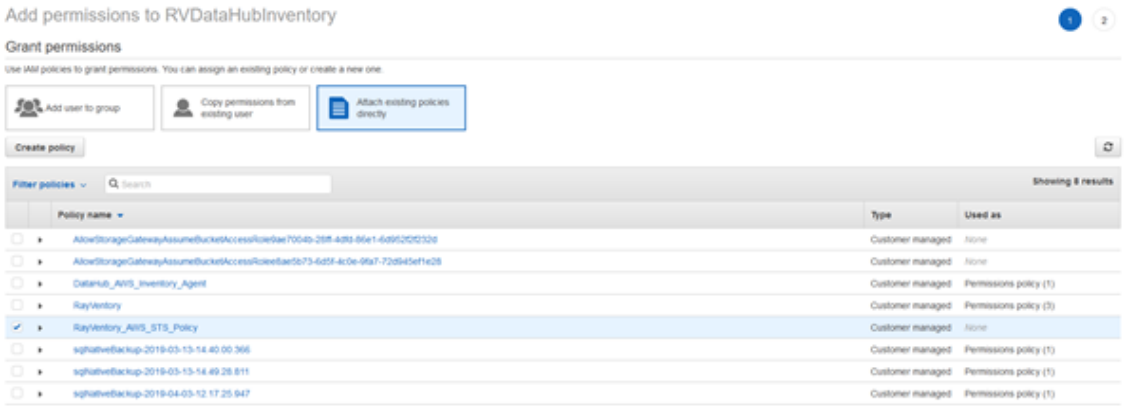
4)


Create policy
1
2
3
A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy in the visual editor and using JSON. Learn more
Visual editor
JSON
Import managed policy
{
"Version": "2012-10-17",
"Statement": [
{
"Sid": "VisualEditor0",
"Effect": "Allow",
"Action": "sts:AssumeRole",
"Resource": "arn:aws:iam::09xxxxxxxxx:role/RayVentory_DataHub_CustomRole"
}
]
}

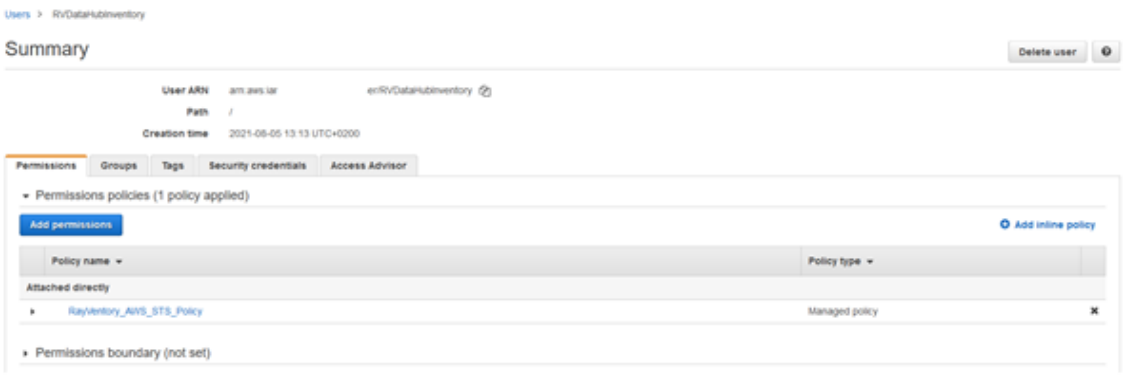
5)


Create policy
1
2
3
Review policy
Name*
RayVentory_AWS_STS_Policy
Use alphanumeric and '+=, @-_' characters. Maximum 128 characters.
Description
Maximum 1000 characters. Use alphanumeric and '+=, @-_' characters.
Summary
Filter
Service
Access level
Resource
Request condition
Allow (1 of 288 services) Show remaining 287
STS
Limited: Write
RoleName | string like | DataHub_AWS_Inventory_Role
None
Tags
Key
Value
No tags associated with the resource.

6)

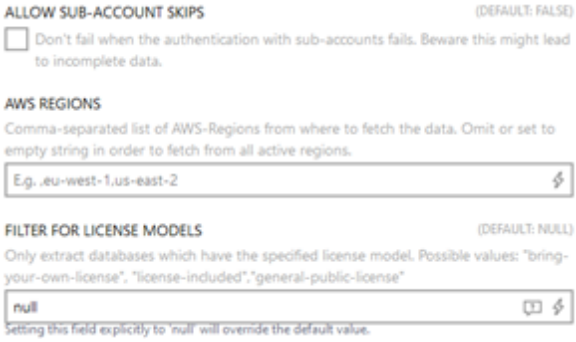

Add permissions to RVDataHubInventory
Grant permissions
Add user to group
Copy permissions from existing user
Attach existing policies directly
Create policy
Filter policies
Policy name
Type
Used as
RayVentory_AWS_STS_Policy
Customer managed

7)

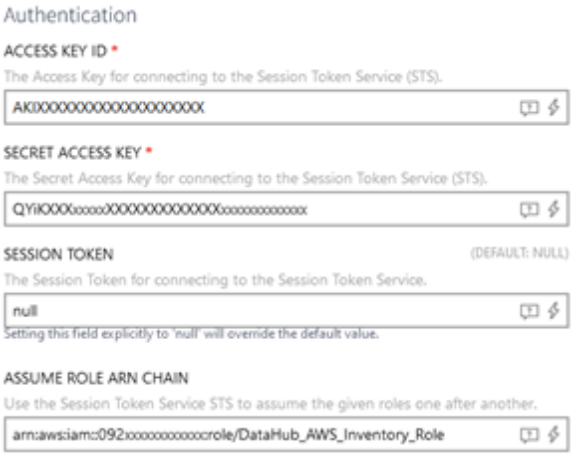

Users > RVDataHubInventory
Summary
Delete user
User ARN
arn:aws:iar
ex/RVDataHubInventory
Path
/
Creation time
2021-08-05 13:13 UTC+0200
Permissions
Groups
Tags
Security credentials
Access Advisor
Permissions policies (1 policy applied)
Add permissions
Add inline policy
Policy name
Policy type
Attached directly
RayVentory_AWS_STS_Policy
Managed policy
Permissions boundary (not set)

Connector Setup

In order for the RayVentory Data Hub AWS RDS connector to connect and inventory an RDS instance it is necessary to provide the following configuration parameters.



- The agent is using the authentication parameters to access the AWS account. In case of sub-accounts, the agent tries to authenticate against them. If the "**ALLOW SUB-ACCOUNT SKIPS**" checkbox is checked, the agent will ignore failed sub-account authentications and will continue with the inventory.
- The **AWS REGIONS** field can be used to select specific regions for the import only. If left empty, data from all active regions will be fetched.
- The **FILTER FOR LICENSE MODELS** field provides an inventory-task level filtering option based upon the license model of the RDS instances. Please note that the inentory data includes the license model attribute which also allows users to filter instances at the report level.



- For the inventory it is recommended to setup a custom inventory account underneath the parent AWS account. It is necessary to provide the **ACCESS KEY ID** and the **SECRET ACCESS KEY** for the account.
- It is recommended to setup a custom inventory role. When connecting, the user account authenticates using the **ACCESS KEY ID** and the **SECRET ACCESS KEY**. Afterwards the user account uses the **ASSUME ROLE ARN CHAIN** in order to inventory the respective service.
- It is possible to use a session token for the connection with the Session Token Service by entering the token into the **SESSION TOKEN** field. If the value of this field is `null`, the default value will be used.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Sub-account Skips

This parameter determines whether a task will fail if the authentication with a sub-account fails.

Technical Name	`allow_sub_account_skips`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false, true`

Be aware:
If a task does not fail when the authentication with a sub-account fails, this might lead to incomplete data.

AWS Regions

This parameter contains a comma-separated list of AWS-regions from where to fetch the data. Omit this parameter or set it to an empty string in order to fetch data from all active regions.

Technical Name	`regions`
Category	Functional
Type	Array
Default Value	`{empty}`
Example Values	`eu-west-1,us-east-2`

A list with all available regions can be found at: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html.

Filter for License Models

This parameter can be used to only extract databases which have the specified license model. The following values are possible: `bring-your-own-license`, `license-included`, `general-public-license`.

Technical Name	`filter_license_model`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

This does not improve the runtime of the connector. If a lot of data is fetched, it is recommended to only get the data once and split the data afterwards.

Authentication

Access Key ID

This parameter contains the Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`access_key_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) session credentials for the time of the execution.

Secret Access Key

This parameter contains the Secret Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`secret_access_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) session credentials for the time of the execution.

Session Token

This parameter contains the Session Token for the connection to the Session Token Service (STS).

Technical Name	`session_token`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) session credentials for the time of the execution.

Assume Role ARN Chain

Use the Session Token Service STS to assume the given roles one after another.

Technical Name	`master_assume_role_arn_chain`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`arn:aws:iam::123456789012:role/ROLE_NAME`

The initial credentials might not have the required permissions for the job. One can perform a privilege escalation with the Assume Role request via STS. For more information on the AWS authentication process read the official documentation. Using a list of roles will chain the assumptions together. The connector gets session credentials for the first role with the initial credentials. Then, with the session credentials it assumes the second role and so on. The last session credentials are used for the actual API access. When aggregating data of an Organizational Unit, this chain is used only for the master account of the OU.

External ID

This parameter can be used in order to provide an external ID for cross-account access with the Session Token Service (STS).

Technical Name	`assume_external_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null, 987654321098`

The External ID is used with every role assumption of the Assume Role ARN Chain. Read about the AWS authentication mechanism in the official documentation.

List Accounts

This parameter defines the accounts in the OU from which the data will be fetched.

Technical Name	`sub_account_assume_role_arn_chain`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null, arn:aws:iam::{accountId}:role/ROLE_NAME`

Extracted Data

Endpoint:	`https://rds.{region}.amazonaws.com`
Description:	The connector will connect to the regionsal endpoints of the specified regions.
Documentation:	https://docs.aws.amazon.com/general/latest/gr/rande.html

RayVentory Data Hub AWS RDS connector allows for the inventory of RDS instances under an AWS account. As part of the inventory, data pertaining to the following attributes is gathered:

awsrds

```
[awsrds](
	[instanceId] [nvarchar](max) NULL,
	[accountId] [nvarchar](max) NULL,
	[instanceType] [nvarchar](max) NULL,
	[state] [nvarchar](max) NULL,
	[dbEngine] [nvarchar](max) NULL,
	[dbVersion] [nvarchar](max) NULL,
	[licenseModel] [nvarchar](max) NULL,
	[publicAccess] [nvarchar](max) NULL,
)
```

Tables

Table	Column	Type
instances	• accountId • dbEngine • dbVersion • instanceId • instanceType • licenseModel • publicAccess • state	• String • String • String • String • String • String • Boolean • String
tags	• instanceId • key • value	• String • String • String

Amazon Simple Storage Service (S3)

Amazon Simple Storage Service or S3 is an object-based storage service offered by AWS. This service provides a cheap, secure, and scalable data storage solution to its users.

With the RayVentory Data Hub S3 connector, files from specified S3 buckets can be downloaded and can be loaded into the database. For example, user inventory data stored as a .csv file in a bucket can be downloaded by the connector and imported to the RayVentory database. This information can then, either in isolation or in combination with other inventory information, depicted in a graphical chart or a report.

The RayVentory Data Hub S3 connector downloads files from S3 Buckets. This connector is not compatible with the 'connector_jar_runner' IPP of USU Licenses Management. The connector uses the AWS Java SDK 2.

Be aware:
The underlying AWS Java SDK behaves strangely with proxies. Only the system parameter 'http.proxyHost' and 'http.proxyPort' are used for both HTTP and HTTPS connections. Setting 'https.proxyHost' and 'https.proxyPort' will have no effect. Socks proxies are not supported by the AWS Java SDK. Setting 'socksProxyHost' and 'socksProxyPort' will have no effect.

Prerequisites

Configuring AWS for S3

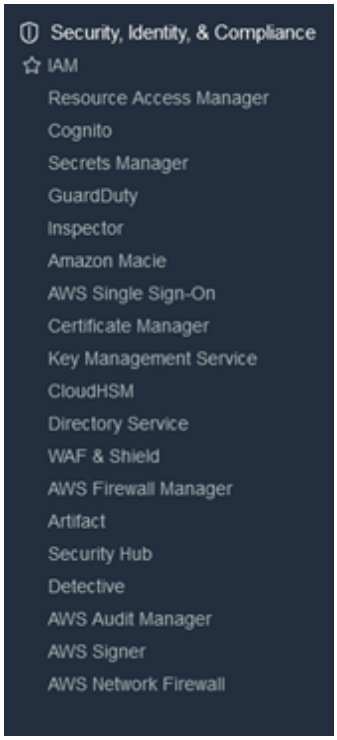
This section of the document provides basic information on how to configure an AWS account to enable the RayVentory Data Hub agent to authenticate against the account and inventory the data from the Amazon Simple Storage Service.

Identity and Access Management

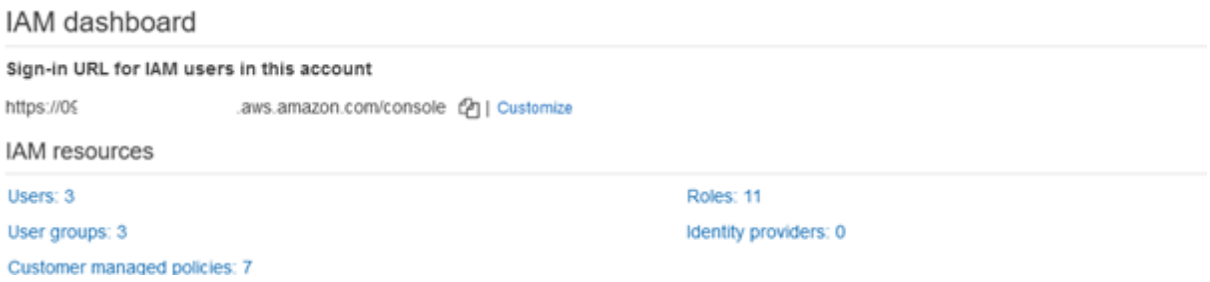
The AWS Identity and Access Management (IAM) feature enables its users to manage access to AWS services and resources under the respective AWS user account. Furthermore, it allows users to set the interconnection between AWS accounts. IAM includes four major areas/components:

- **Users:** AWS accounts
- **Groups:** A collection of user accounts under one set of permissions
- **Roles:** A role can be created and assigned to AWS resources
- **Policies:** A document that defines one or more permissions

Use the Management Console to access the IAM login to the AWS account. After the login select IAM under the Security, Identity, & Complicance category of the AWS Service list.

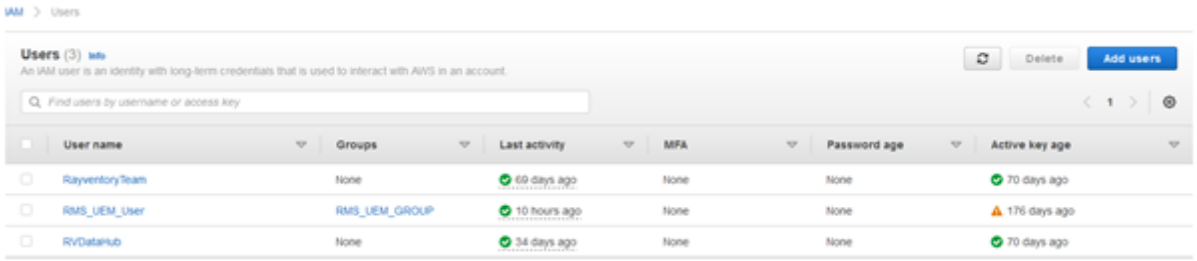


Once the IAM dashboard is loaded select the Users from the IAM resources.



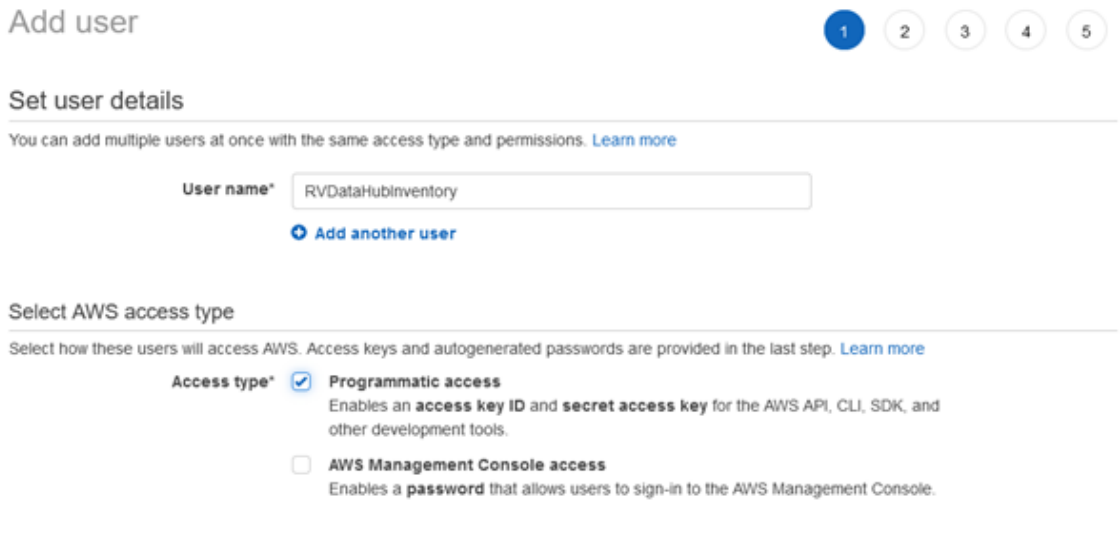
User Setup

Click on the **Add users** button on the **IAM -> Users** dashboard.

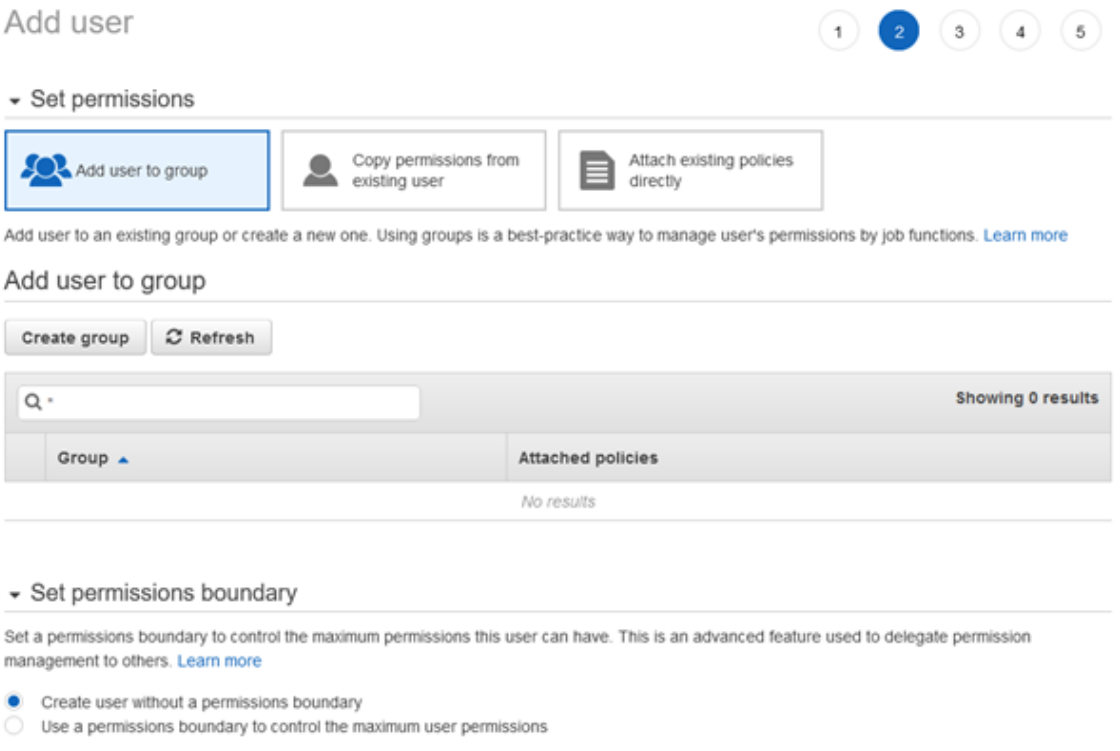


Follow the steps as illustrated below to add a new user for the inventory.

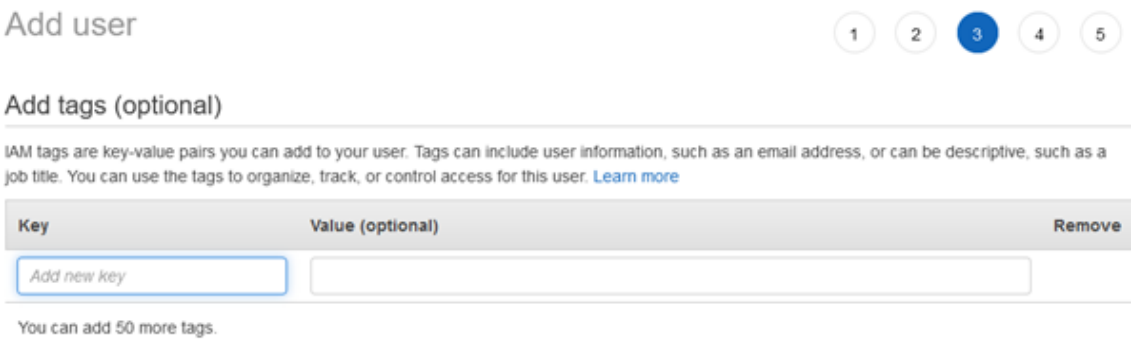
1)


Add user
1 2 3 4 5
Set user details
You can add multiple users at once with the same access type and permissions. Learn more
User name*
RVDataHubInventory
Add another user
Select AWS access type
Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. Learn more
Access type*
Programmatic access
Enables an access key ID and secret access key for the AWS API, CLI, SDK, and other development tools.
AWS Management Console access
Enables a password that allows users to sign-in to the AWS Management Console.

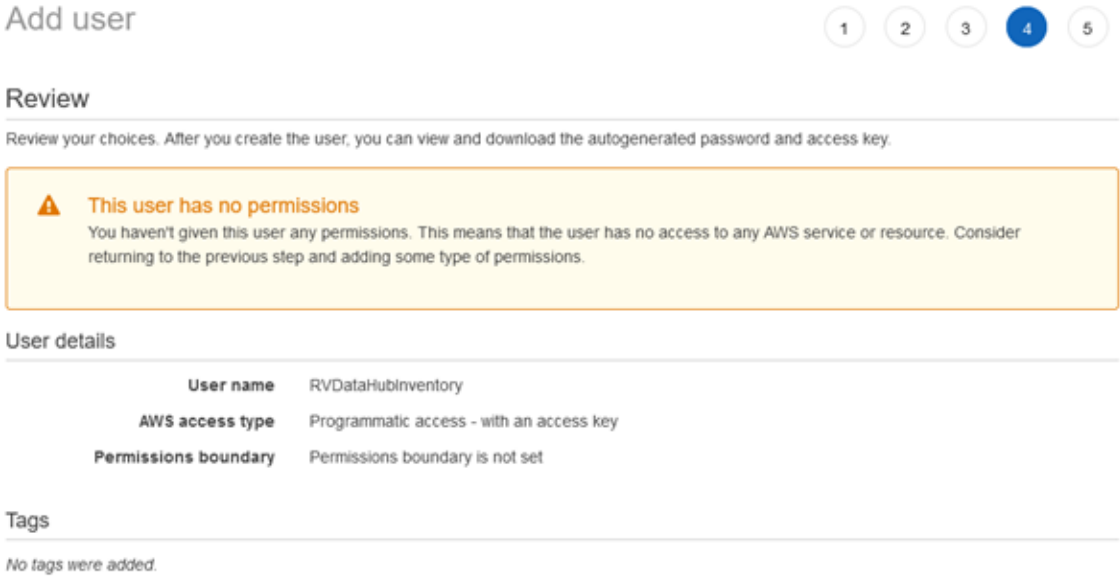
2)


Add user
1 2 3 4 5
Set permissions
Add user to group
Copy permissions from existing user
Attach existing policies directly
Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. Learn more
Add user to group
Create group
Refresh
Showing 0 results
Group
Attached policies
No results
Set permissions boundary
Set a permissions boundary to control the maximum permissions this user can have. This is an advanced feature used to delegate permission management to others. Learn more
Create user without a permissions boundary
Use a permissions boundary to control the maximum user permissions

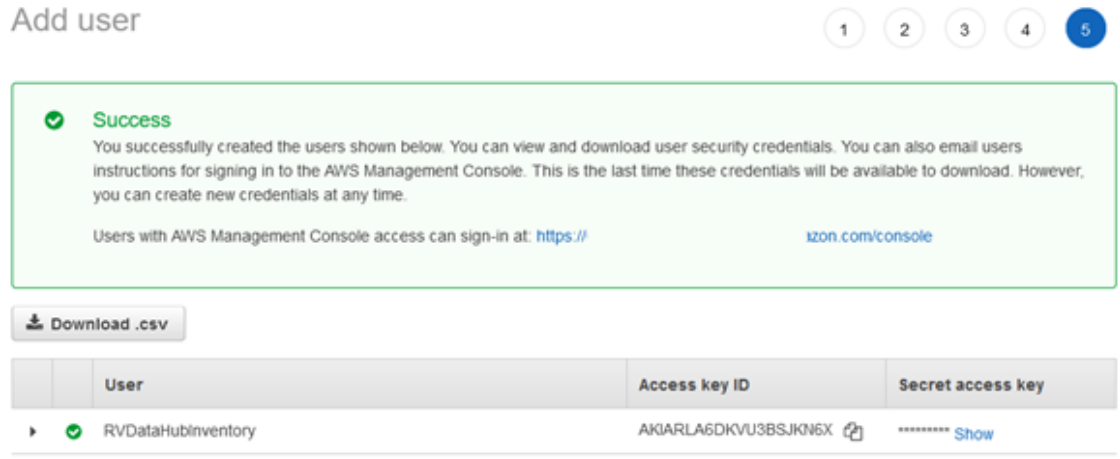
3)


Add user
1 2 3 4 5
Add tags (optional)
IAM tags are key-value pairs you can add to your user. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this user. Learn more
Key
Value (optional)
Remove
Add new key
You can add 50 more tags.

4)


Add user
1 2 3 4 5
Review
Review your choices. After you create the user, you can view and download the autogenerated password and access key.
This user has no permissions
You haven't given this user any permissions. This means that the user has no access to any AWS service or resource. Consider returning to the previous step and adding some type of permissions.
User details
User name
RVDataHubInventory
AWS access type
Programmatic access - with an access key
Permissions boundary
Permissions boundary is not set
Tags
No tags were added.

5)

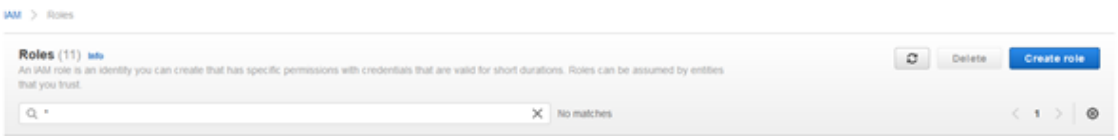

Add user
1 2 3 4 5
Success
You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.
Users with AWS Management Console access can sign-in at: https://
izon.com/console
Download .csv
User
Access key ID
Secret access key
RVDataHubInventory
AKIARLA6DKVU3BSJKN6X
Show

- Only allow programmatic access for the user.
- Permission assignment will be done later.
- Once the user is created, download the Access Key and the Secret Key as `.csv` file.
- Store the `.csv` file in a secure location.

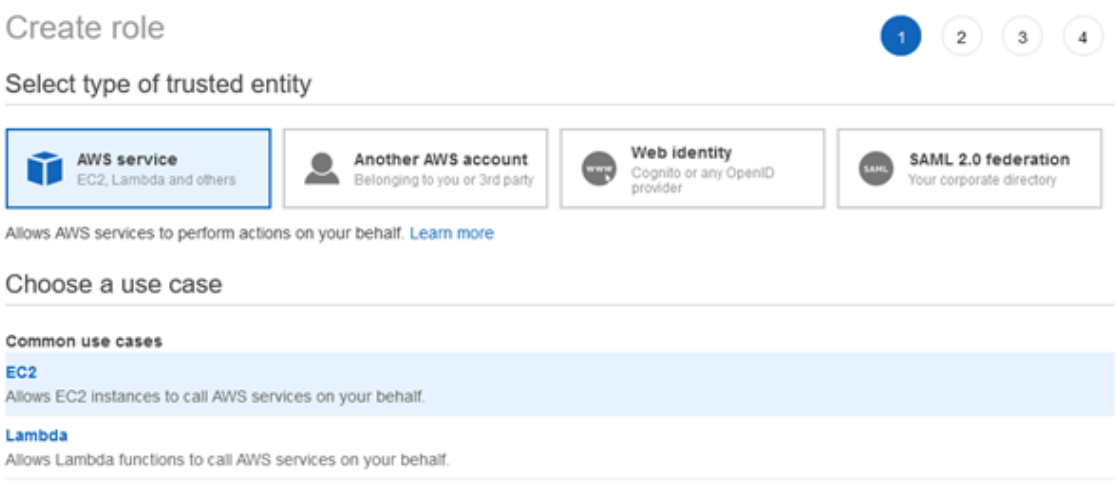
Role Setup

To add a new role, navigate back to the IAM console and then select roles. Follow the steps below in order to add a new role.

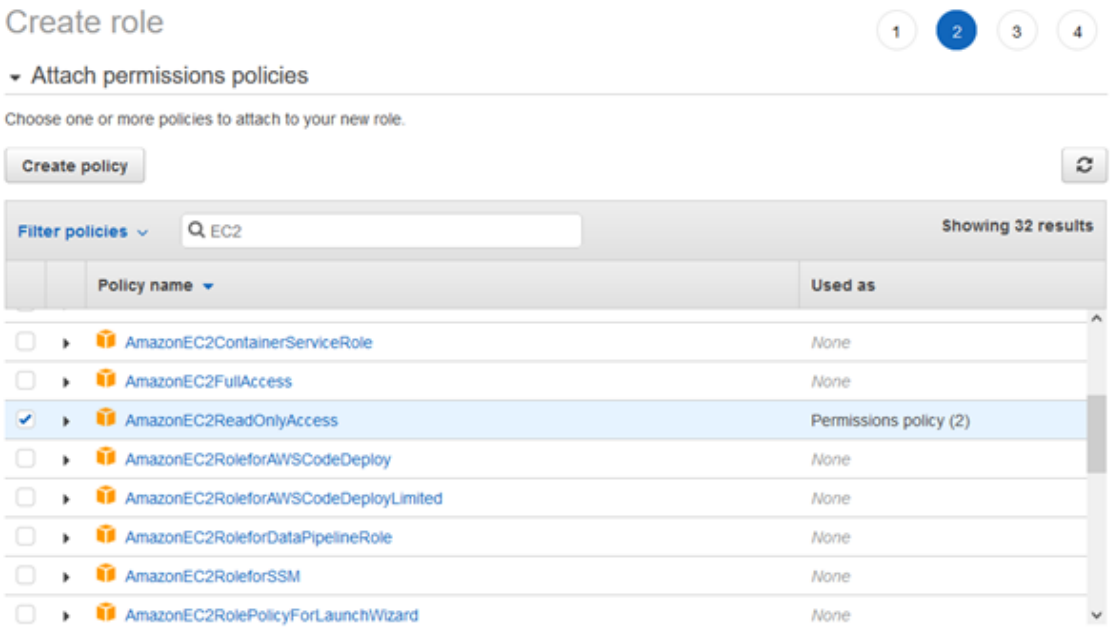
1)



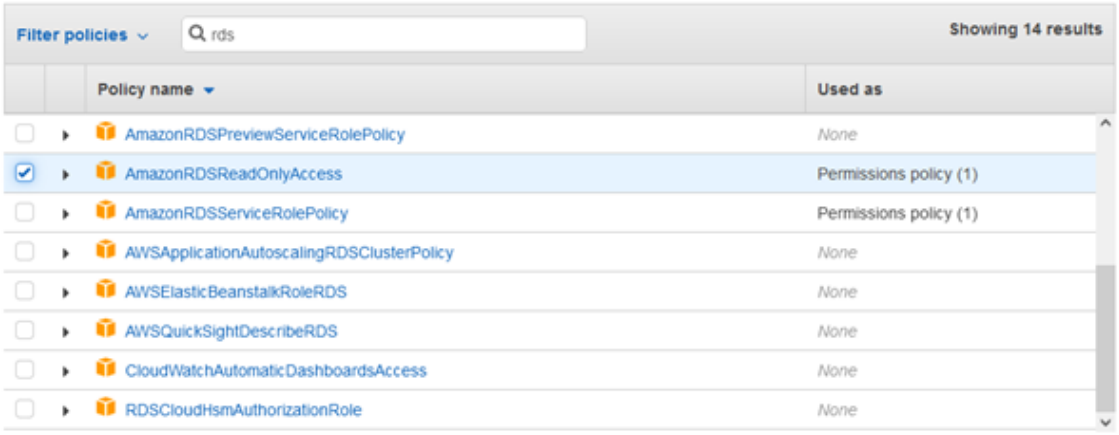
2)



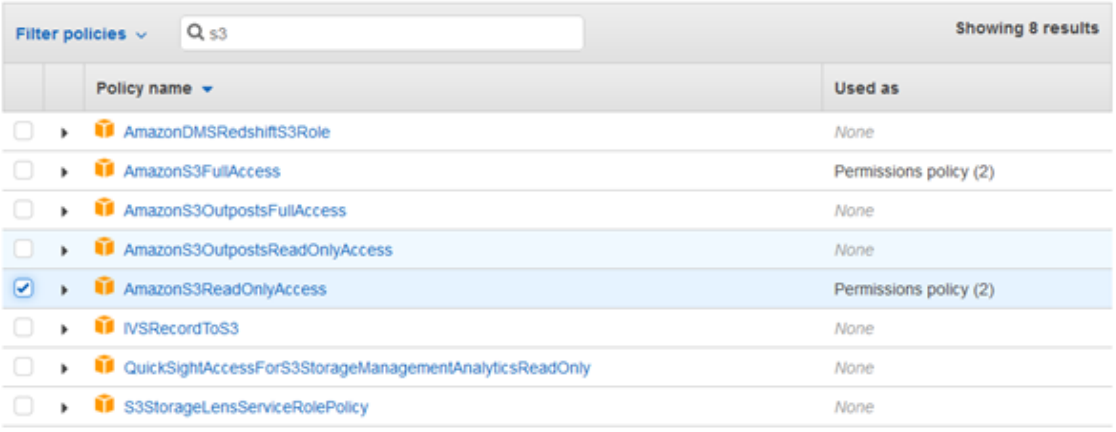
3)


Create role
1
2
3
4
Attach permissions policies
Choose one or more policies to attach to your new role.
Create policy
Filter policies
EC2
Showing 32 results
Policy name
Used as
AmazonEC2ContainerServiceRole
None
AmazonEC2FullAccess
None
AmazonEC2ReadOnlyAccess
Permissions policy (2)
AmazonEC2RoleforAWSCodeDeploy
None
AmazonEC2RoleforAWSCodeDeployLimited
None
AmazonEC2RoleforDataPipelineRole
None
AmazonEC2RoleforSSM
None
AmazonEC2RolePolicyForLaunchWizard
None
Set permissions boundary

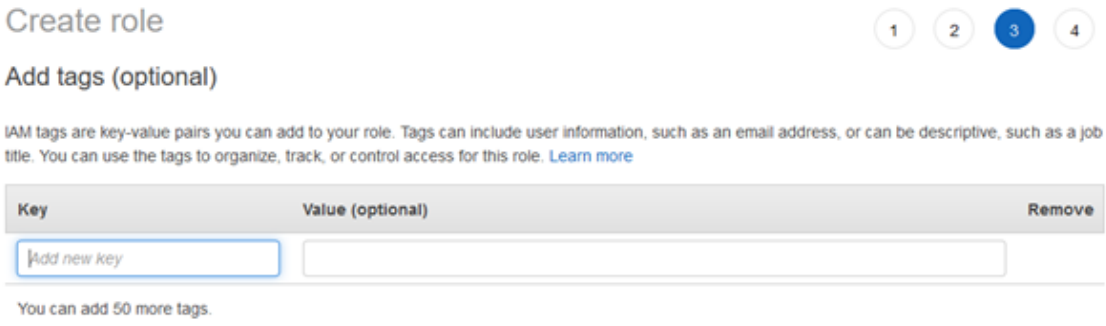
4)


Filter policies
rds
Showing 14 results
Policy name
Used as
AmazonRDSPreviewServiceRolePolicy
None
AmazonRDSReadOnlyAccess
Permissions policy (1)
AmazonRDSServiceRolePolicy
Permissions policy (1)
AWSApplicationAutoscalingRDSClusterPolicy
None
AWSElasticBeanstalkRoleRDS
None
AWSQuickSightDescribeRDS
None
CloudWatchAutomaticDashboardsAccess
None
RDSCloudHsmAuthorizationRole
None

5)

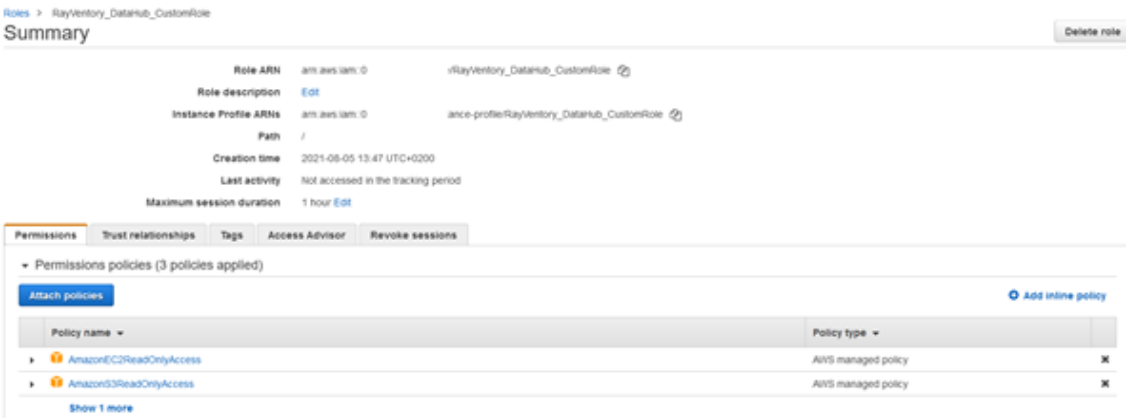

Filter policies
s3
Showing 8 results
Policy name
Used as
AmazonDMSRedshiftS3Role
None
AmazonS3FullAccess
Permissions policy (2)
AmazonS3OutpostsFullAccess
None
AmazonS3OutpostsReadOnlyAccess
None
AmazonS3ReadOnlyAccess
Permissions policy (2)
IVSRecordToS3
None
QuickSightAccessForS3StorageManagementAnalyticsReadOnly
None
S3StorageLensServiceRolePolicy
None

6)



7)

8)



Create a new role and attach the following managed policy to the role:

- `AmazonS3ReadOnlyAccess` (if also using the other AWS connectors also attach the `AmazonRDSReadOnlyAccess` and the `AmazonEC2ReadOnlyAccess` policies to the role).

Edit the Trust Relationship to point to the parent user account.

Copy the Role ARN for the next step.

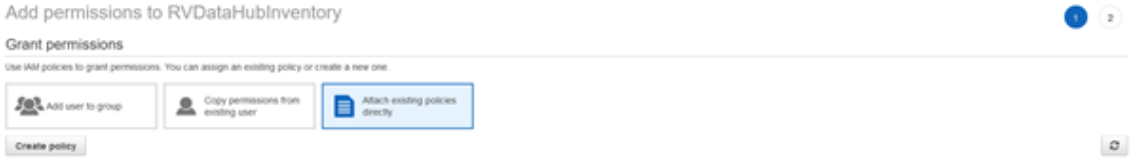
Assign User Account to the Role

At this step, assign the permission to use **AssumeRole** to the user account created in the first step. AssumeRole is an action available under the AWS Security Token service that returns a set of temporary security credentials that can be used to access the AWS resources. These temporary credentials consist of an access key ID, a secret access key, and a security token.

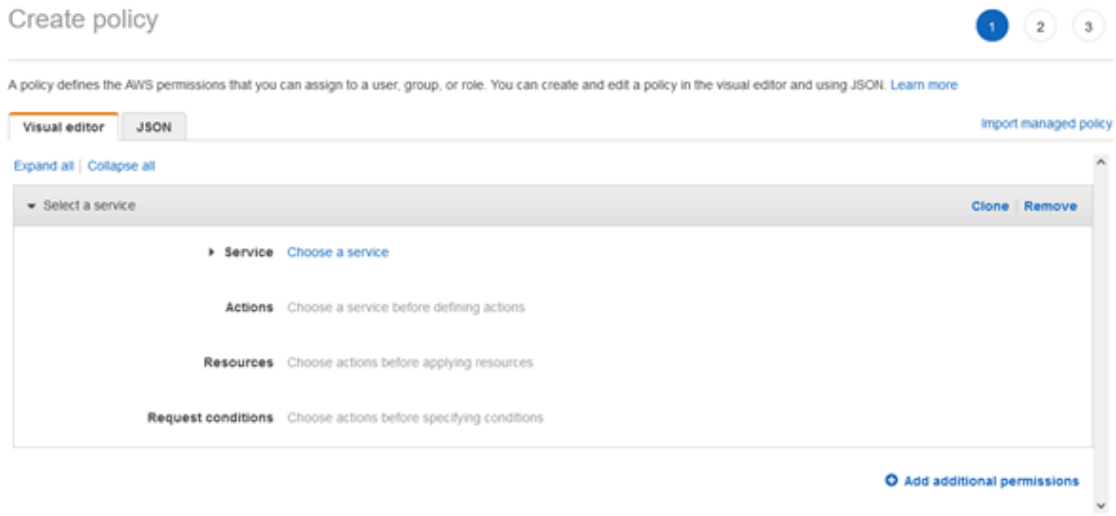
To assign the permission navigate backk to **IAM** > **Users**. Select the user created in the previous step. Once selected click on the Add permissions button located in the Permissions tab. This will open the Grant permissions page. Follow the steps to grant the required permissions.

1)

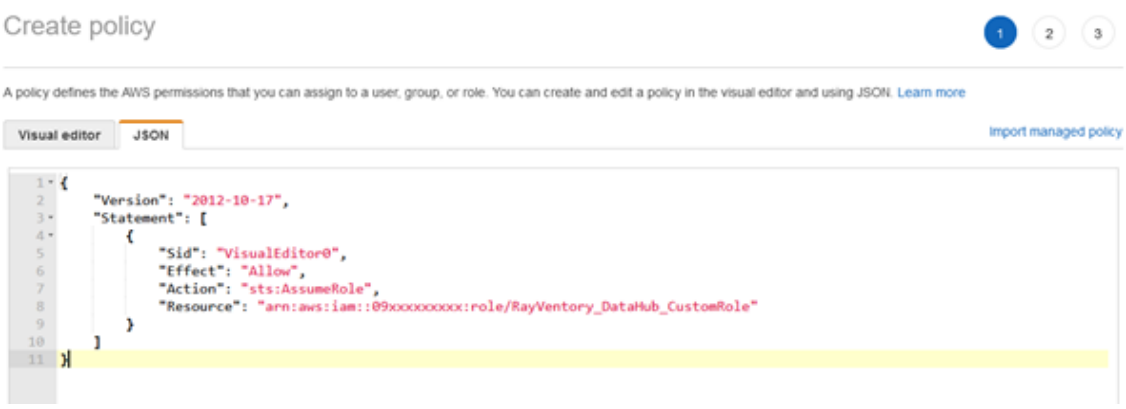
2)



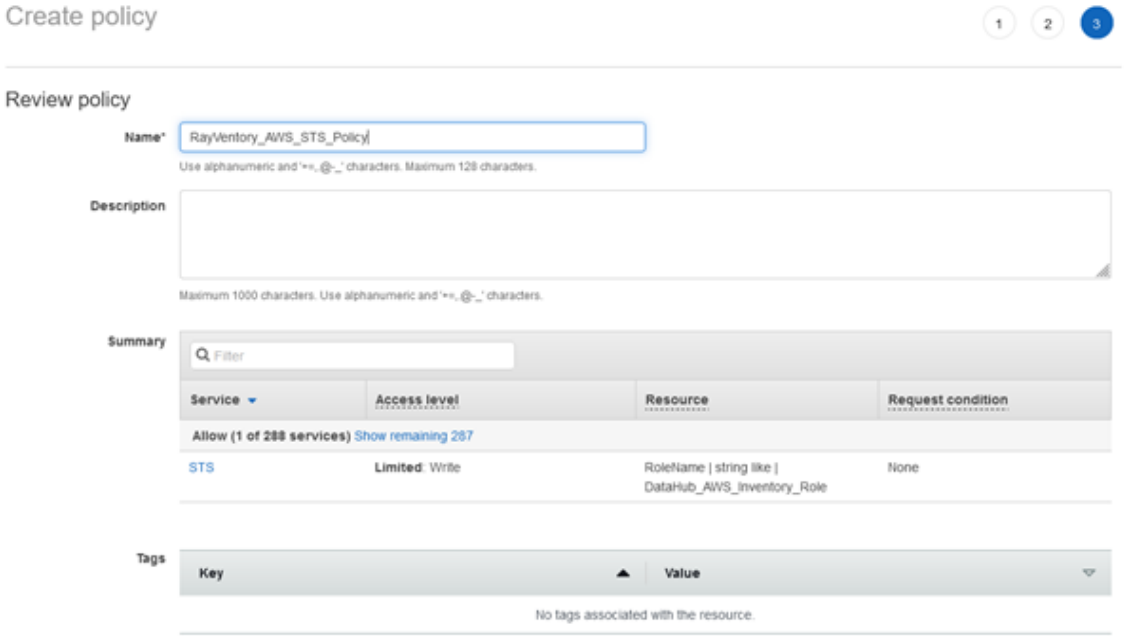
3)



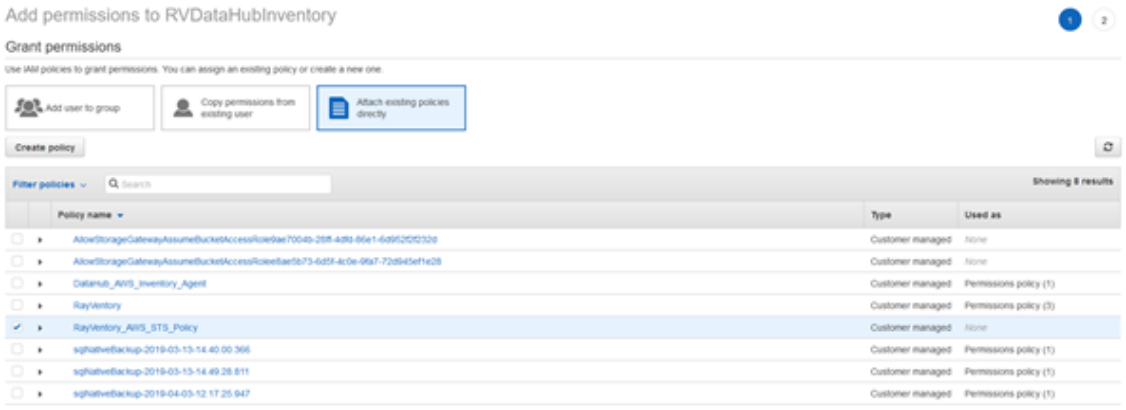
4)


Create policy
1
2
3
A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy in the visual editor and using JSON. Learn more
Visual editor
JSON
Import managed policy
{
"Version": "2012-10-17",
"Statement": [
{
"Sid": "VisualEditor0",
"Effect": "Allow",
"Action": "sts:AssumeRole",
"Resource": "arn:aws:iam::09xxxxxxxxx:role/RayVentory_DataHub_CustomRole"
}
]
}

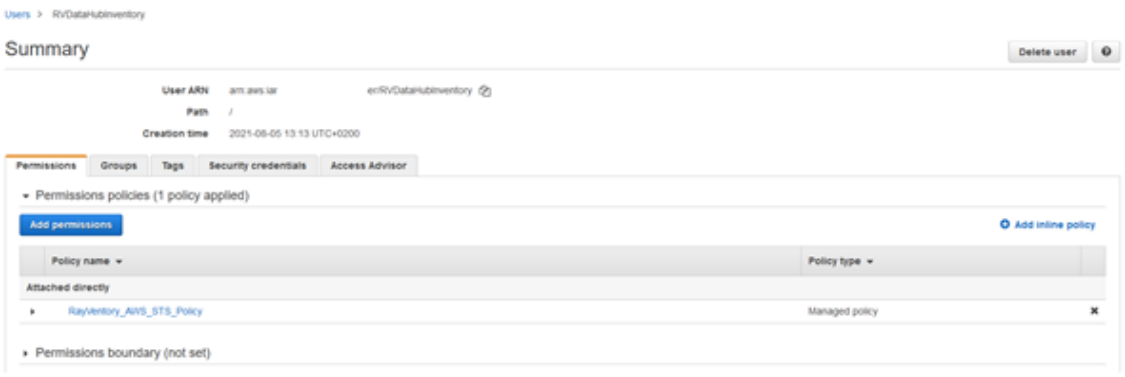
5)


Create policy
1
2
3
Review policy
Name*
RayVentory_AWS_STS_Policy
Use alphanumeric and '+=, @-_' characters. Maximum 128 characters.
Description
Maximum 1000 characters. Use alphanumeric and '+=, @-_' characters.
Summary
Filter
Service
Access level
Resource
Request condition
Allow (1 of 288 services) Show remaining 287
STS
Limited: Write
RoleName | string like | DataHub_AWS_Inventory_Role
None
Tags
Key
Value
No tags associated with the resource.

6)

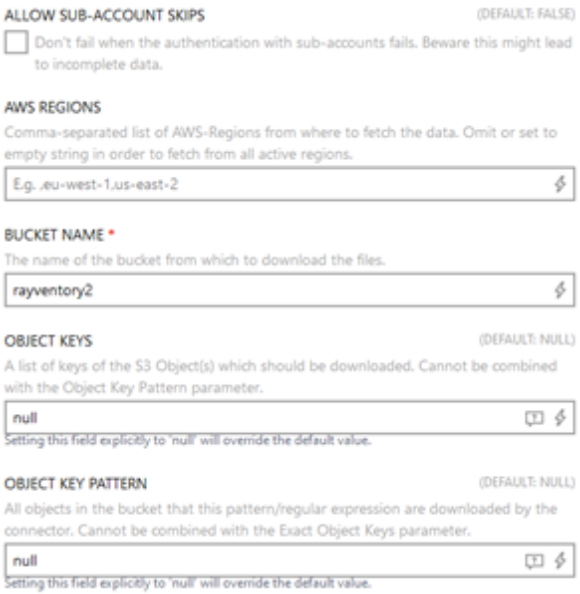

Add permissions to RVDataHubInventory
1
2
Grant permissions
Use IAM policies to grant permissions. You can assign an existing policy or create a new one.
Add user to group
Copy permissions from existing user
Attach existing policies directly
Create policy
Filter policies
Search
Showing 8 results
Policy name
Type
Used as
AllowStorageGatewayAssumeBucketAccessRole8ae7004b-26ff-4df8-86e1-6d952f2f232d
AllowStorageGatewayAssumeBucketAccessRole8ae5b73-6d5f-4c0e-9fa7-72d945ef1e28
DataHub_AWS_Inventory_Agent
RayVentory
RayVentory_AWS_STS_Policy
sqlNativeBackup-2019-03-13-14.40.00.366
sqlNativeBackup-2019-03-13-14.49.28.811
sqlNativeBackup-2019-04-03-12.17.25.947
Customer managed
None
Permissions policy (1)
Permissions policy (3)

7)

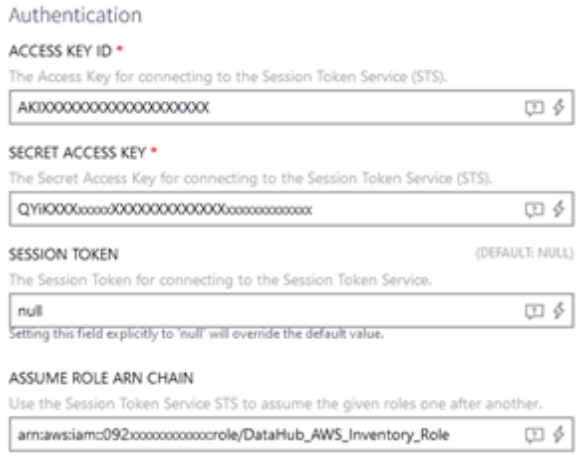

Users > RVDataHubInventory
Summary
Delete user
User ARN
arn:aws:iar
ex/RVDataHubInventory
Path
/
Creation time
2021-08-05 13:13 UTC+0200
Permissions
Groups
Tags
Security credentials
Access Advisor
Permissions policies (1 policy applied)
Add permissions
Add inline policy
Policy name
Policy type
Attached directly
RayVentory_AWS_STS_Policy
Managed policy
Permissions boundary (not set)

Connector Setup

In order for the RayVentory Data Hub AWS S3 connector to connect to and fetch data from an S3 bucket, it is necessary to provide the following configuration parameters.



- The agent is using the authentication parameters to access the AWS account. In case of sub-account, the agent tries to authenticate against them. If the "**ALLOW SUB-ACCOUNT SKIPS**" checkbox is checked, the agent will ignore failed sub-account authentications and will continue with the inventory.
- The name of the S3 bucket needs to be provided in the **BUCKET NAME** field. After the authentication, the agent will connect to this bucket and download the object/files by either using the **OBJECT KEYS** or the **OBJECT KEY PATTERN**.
- When importing the data from a CSV object, the data within the file should be comma (,) separated.
- The **AWS REGIONS** field can be used to select specific regions for the import only. If left empty, data from all active regions will be fetched.



- For the inventory it is recommended to setup a custom inventory account under the parent AWS account. It is necessary to provide the **ACCESS KEY ID** and the **SECRET ACCESS KEY** for the account.
- It is recommended to setup a custom inventory role. The permissions required for the inventory are assigned to this role. When connecting, the user account authenticates using the **ACCESS KEY ID** and the **SECRET ACCESS KEY**. Afterwards the user account uses the **ASSUME ROLE ARN CHAIN** in order to inventory the respective service.
- It is possible to use a session token for the connection with the Session Token Service by entering the token into the **SESSION TOKEN** field. If the value of this field is `null`, the default value will be used.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Sub-account Skips

This parameter determines whether a task will fail if the authentication with a sub-account fails.

Technical Name	`allow_sub_account_skips`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false, true`

Be aware:
If a task does not fail when the authentication with a sub-account fails, this might lead to incomplete data.

AWS Regions

This parameter contains a comma-separated list of AWS-regions from where to fetch the data. Omit this parameter or set it to an empty string in order to fetch data from all active regions.

Technical Name	`regions`
Category	Functional
Type	Array
Default Value	`{empty}`
Example Values	`eu-west-1,us-east-2`

A list with all available regions can be found at: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html.

Bucket Name

This parameter specifies the name of the bucket from which to download the files.

Technical Name	`bucket_name`
Category	Functional
Type	String
Default Value	`n/a`
Example Values	`aspreports`

Object Keys

This parameter specifies a list of keys of the S3 object(s) which should be downloaded. If this field is explicitly set to `null`, the default value will be used.

Technical Name	`object_keys`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null, report1.csv, report2.csv`

An object key is compared to the desired key by exact matching. So for a given object key 'data.json' the object 'nested/directories/data.json' will not be fetched.

Be aware:
This parameter cannot be combined with the Object Key Pattern parameter!

Object Key Pattern

This parameter specifies a pattern/regular expression. All objects in the bucket which match this parameter will be downloaded by the connector. If this field is explicitly set to `null`, the default value will be used.

Technical Name	`object_key_pattern`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, .*\\.csv, ^.*i-\\p{XDigit}n{15}+\\.json$`

Be aware:
This parameter cannot be combined with the Object Keys parameter!

Authentication

Access Key ID

This parameter contains the Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`access_key_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) session credentials for the time of the execution.

Secret Access Key

This parameter contains the Secret Access Key that is used for the connection to the Session Token Service (STS).

Technical Name	`secret_access_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) session credentials for the time of the execution.

Session Token

This parameter contains the Session Token for the connection to the Session Token Service (STS).

Technical Name	`session_token`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

How to get the credentials is described in the official documentation. It is recommended to generate credentials tailored to this connector via the IAM Console. The connector uses this credentials to do the **first** authentication to AWS. It then gets (and automatically renews) session credentials for the time of the execution.

Assume Role ARN Chain

Use the Session Token Service STS to assume the given roles one after another.

Technical Name	`master_assume_role_arn_chain`
Category	Authentication
Type	String
Default Value	`n/a`
Example Values	`arn:aws:ima::123456789012:role/ROLE_NAME`

The initial credentials might not have the required permissions for the job. One can perform a privilege escalation with the Assume Role request via STS. For more information on the AWS authentication process read the official documentation. Using a list of roles will chain the assumptions together. The connector gets session credentials for the first role with the initial credentials. Then, with the session credentials it assumes the second role and so on. The last session credentials are used for the actual API access. When aggregating data of an Organizational Unit, this chain is used only for the master account of the OU.

External ID

This parameter can be used in order to provide an external ID for cross-account access with the Session Token Service (STS).

Technical Name	`assume_external_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null, 987654321098`

The externalId is used with every role assumption of the Assume Role ARN Chain. Read about the AWS authentication mechanism in the official documentation.

List Accounts

This parameter defines the accounts in the OU from which the data will be fetched.

Technical Name	`sub_account_assume_role_arn_chain`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null` `arn:aws:iam::{accountId}:role/ROLE_NAME`

When managing a large number of accounts, one can aggregate them in an Organizational Unit (OU). Instead of running the connector for every single account, the connector can fetch the list of accounts from OU and aggregate the data automatically. When setting this parameter, the last role in the Assume Role Chain must have enough privileges for the ListAccount request. The initial credentials (Access Key ID, Secret Access Key, and Session Token) are reused for the first authentication, but for the cross-account access to the sub-accounts this chain is used instead. Use the placeholder {accountId} in the chain which is replaced by the sub-account IDs at run-time. Leave the chain empty or null to fetch data only from the master account.

Extracted Data

Endpoint:	`https://s3.{region}.amazonaws.com`
Description:	The connector will connect to the regional endpoints of the specified regions.
Documentation:	https://docs.aws.amazon.com/general/latest/gr/rande.html

Articulate Rise 360

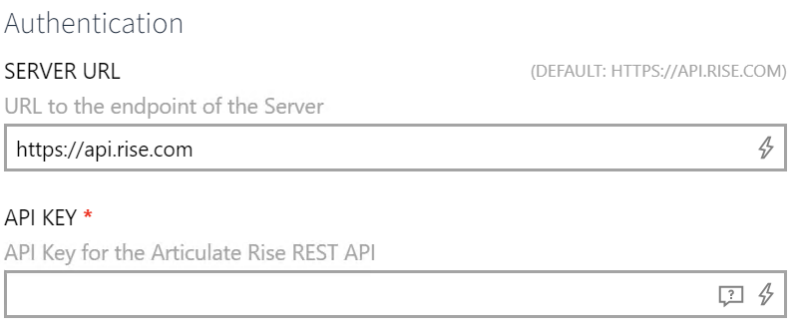
Connects to the Articulate Rise REST API and retrieves users.

Prerequisites

In order to generate the API Key that is needed for the authentication with the Articulate Rise REST API execute the following steps.

1. Navigate to **Manage** > **Settings**.
2. Click on the **Manage API Keys** button.
3. Click on the **Generate New Key** button.
4. Enter an easily identifiable name for the key and click on the **Generate Key** button.
5. Copy the API key and save the key to a secure location. The key will not be shown again and if the key is lost it wil be necessary to create a new API key.

Connector Setup



- By default the URL in the **SERVER URL** field is `https://api.rise.com`.
- Enter the API Key that is used to authenticate with the API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222

the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.rise.com`
Example Values	`https://api.rise.com`

API Key

This parameter contains the API key that is used for the authentication with the Articulate Rise REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The API Key can be obtained as described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/users`
Description:	List users.
Documentation:	https://help.rise.com/en/articles/4177145-users-api

Tables

Table	Column	Type
`users`	• `email` • `favoritesUrl` • `firstName` • `groupsUrl` • `id` • `lastName` • `learnerReportUrl` • `reportingGroupUrl` • `role` • `url`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`

Asana

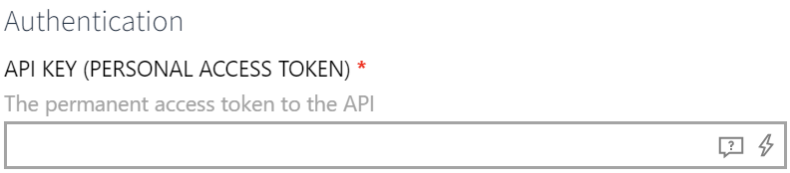
Connects to the Asana REST API to retrieve user information.

Prerequisites

In order to create a Personal Access Token that is used to authenticate with the Asana REST API execute the following steps.

1. Click on the profile picture at the top bar and select **My Profile Settings**.
2. Click on the **Apps** tab.
3. Click on **Manage Developer Apps**.
4. Click on the **+ Create New Personal Access Token** button.
5. Enter an easily identifiable description for the Personal Access Token.
6. Click on the **Create** button.
7. Copy the token and save it to a secure location. This is the only time the token will be visible. If the token is lost, a new token needs to be created.

Connector Setup



- Enter the API Key that is used to authenticate with the API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

API Key (Personal Access Token)

This parameter contains the permanent access token to the API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The generation of the Personal Access Token is described in the documentation of the Asana REST API.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`

Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://app.asana.com/api/1.0/users`
Description:	List all users of the account.

Documentation:	https://developers.asana.com/docs/users

Tables

Table	Column	Type
users	• gid • name • resourceType	• String • String • String

Atlassian Cloud Admin

Connects to the Atlassian Cloud Admin REST API to retrieve user and organization data.

Prerequisites

To create an API Key for authentication with the Atlassian Cloud Admin REST API execute the following steps.

1. Select **Settings** > **API keys**.
2. Click on **Create API key**.
3. Enter an easily identifiable name for the API key.
4. Select the time for the expiration of the key. A key cannot be used for a period that is longer than a year.
5. Click on the **Create** button.
6. Save the API key and the Organization ID to a secure location. They will not be shown again and if lost it will be necessary to create a new API key.
7. Click on the **Done** button.

Connector Setup

- Enter the API Key that is used to authenticate with the API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

API Key

This parameter contains the API key that is used for the authentication with the REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`

Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://api.atlassian.com/admin/v1/orgs`
Description:	List organizations.
Documentation:	https://developer.atlassian.com/cloud/admin/organization/rest/api-group-orgs/

Endpoint:	`https://api.atlassian.com/admin/v1/orgs/{orgId}`
Description:	List the users of an organization
Documentation:	https://developer.atlassian.com/cloud/admin/organization/rest/api-group-orgs/#api-group-orgs/

Tables

Table	Column	Type
organizations	• id • type	• String • String
org_users	• accessBillable • accountId • accountStatus • accountType • email • lastActive • name	• Boolean • String • String • String • String • String • String
user_product_access	• accountId • key • lastActive • name • url	• String • String • String • String • String

Atlassian Jira (Cloud)

This connector is used to connect to the Atlassian Jira REST API. It collects data from the Jira Cloud Platform including data if a user is still being used.

Prerequisites

To use the connector an API Token is needed. The API Token needs to be created by a user with at least administrative rights in order for the connector to gain access to the necessary information.

To create an API token execute the following steps:

1. Log in to https://id.atlassian.com/manage/api-tokens.
2. Click on **Create API token**.
3. Enter a descriptive name (for example: RayVentory Data Hub) and click on **Create**.
4. Click on the **Copy to clipboard** button and save the token to a secure location.

The token will not be shown again. If the token is lost, it will be necessary to delete and recreate the API Token.

Connector Setup

- Enter the user used to authenticate to Jira into the **USER** field.
- Enter the API token used to authenticate to Jira into the **API TOKEN** field.
- Enter the URL to the Jira Cloud server into the **JIRA CLOUD URL** field.

Connector Parameters

Authentication

User

This parameter contains the user used to authenticate to Jira.

Technical Name	`user`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

API Token

This parameter contains the API token that is used to authenticate to Jira.

Technical Name	`password`
Category	Authentication
Type	Password
Default Value	n/a
Example Values	

Note:
A script or other process can use an API token to perform basic authentication with Jira Cloud applications or Confluence Cloud. If the Atlassian account that is used for the identification has two-step verification enabled, an API token must be used.

Jira Cloud URL

This parameter contains the URL to the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://XXX.atlassian.net`

Atlassian Jira Cloud

This connector is used to connect to the Atlassian Jira REST API. It collects data from the Jira Cloud Platform.

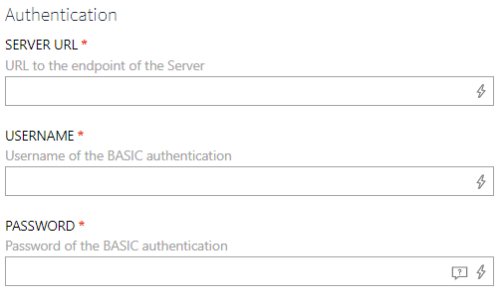
Prerequisites

The following is needed in order to use the Atlassian Jira connector.

- A Jira Server site.
- The username and password of a user who has permissions to create issues on the Jira Server site.

> **Best Practice:**
> It is recommended to create a separate account dedicated to the use with the Atlassian Jira connector!

Connector Setup



- Enter the **SERVER URL** of the Jira Server site which should be inventoried using the connector.
- Enter the **USERNAME** of the account that has been prepared for the usage with the connector.
- Enter the **PASSWORD** of the account that has been prepared for the usage with the connector.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1500`
Example Values	`1500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer Null
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer Null
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`"https://<examplecompany>.com"`

Username

This parameter specifies the username that is used for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`Examplename`

Password

This parameter specifies the password that is used for the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`Az!XXXXXXX?09`

Tip:

	The API token can be used as password.

Extracted Data

Endpoint:	`{+serverUrl}/rest/api/3/users`
Description:	Get users
Documentation:	https://developer.atlassian.com/cloud/jira/platform/rest/v3/api-group-users/#api-rest-api-3-users-get

Tables

Table	Column	Type
`users`	• `accountId` • `accountType` • `active` • `displayName` • `email` • `key` • `name` • `self`	• `String` • `String` • `Boolean` • `String` • `String` • `String` • `String` • `String`

Atlassian Opsgenie

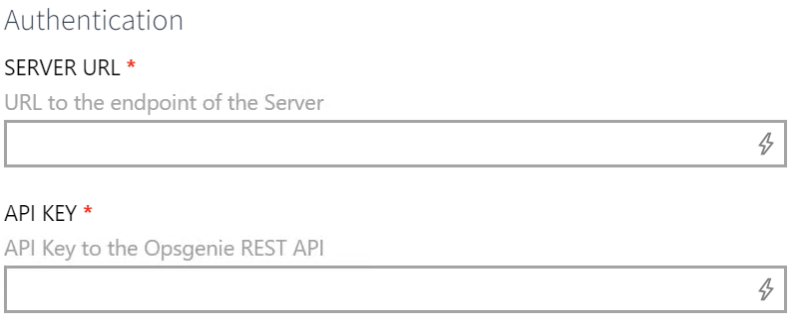
Connects to the Opsgenie REST API to retrieve user and account data.

Prerequisites

In order to create the API Key that is used to authenticate with the Opsgenie REST API execute the following steps.

1. Select the **API Key Management** tab on the **Settings** page.
2. Click on the **Add New API Key** button.
3. Enter an easily identifiable name for the API Key and select the access rights.
4. Click on the **Add API Key** button to save the new API Key.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key that is used for the authentication with the Opsgenie REST API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

API Key

This parameter contains the API key to the Opsgenie REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter specifies the permissions per second.

Technical Name	`rate_limiter_num_requests_per_second`
Category	Technical
Type	Integer
Default Value	n/a
Example Values	`20`

The rate limiter ensures that at most Rate Limiter number of requests are issued in a rate limiter duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. See the Opsgenie REST API documentation for an explanation of the API rate limits per plan and where to find them.

Rate Limiter Number of Requests

This parameter specifies the permissions per minute.

Technical Name	`rate_limiter_num_requests_per_minute`
Category	Technical
Type	Integer
Default Value	n/a
Example Values	`20`

The rate limiter ensures that at most Rate Limiter number of requests are issued in a rate limiter duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. See the Opsgenie REST API documentation for an explanation of the API rate limits per plan and where to find them.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v2/account`
Description:	Retrieves users.
Documentation:	https://docs.opsgenie.com/v1.0/docs/user-api

Endpoint:	`{+serverUrl}/api/v2/users`
Description:	Retrieves account data.
Documentation:	https://docs.opsgenie.com/v1.0/docs/account-api

Tables

Table	Column	Type
`users`	• `blocked` • `createdAt` • `fullName` • `id` • `locale` • `roleId` • `roleName` • `timeZone` • `userAddressCity` • `userAddressCountry` • `userAddressLine` • `userAddressState` • `userAddressZipCode` • `username` • `verified`	• `Boolean` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `Boolean`
`account`	• `name` • `planIsYearly` • `planMaxUserCount` • `planName` • `userCount`	• `String` • `Boolean` • `Integer` • `String` • `Integer`

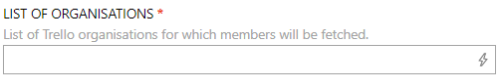
Atlassian Trello

Connects to the Trello REST API. It retrieves organizations and members, and writes 'members of organizations' output.

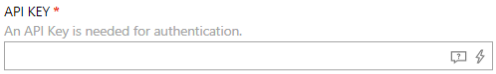
Prerequisites

In order for the connector to be able to authenticate with the Trello REST API it is necessary to obtain an API Key. To obtain the API Key log into Trello and go to https://trello.com/app-key. Each API Key is unique for the user.

Connector Setup



- Enter the list of the Trello organizations for which the members will be fetched into the **LIST OF ORGANIZATIONS** field in the **Configuration** tab.



- Enter the API Key is needed for the authentication into the **API KEY** field in the **Connection** tab.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

List of Organizations

This parameter contains a list of Trello organizations for which the members will be fetched.

Technical Name	`organizations_list`
Category	Functional
Type	String
Default Value	`n/a`
Example Values	

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.trello.com`
Example Values	`https://api.trello.com`

API Key

This parameter contains the API key that is needed for the authentication.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The authorization process is based on an API key and API token. See Authorizing With Trello's REST API for more information. To begin the authentication process an API key is needed. Every Trello user is given an API key. It uniquely identifies a user account but does not grant any access. The API key can be retrieved by logging into Trello and visiting Trello Api Key. The API key is not secret and can safely be shared with others.

API Token

This parameter contains the API token that is needed for the authentication.

Technical Name	`api_token`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

For the authentication an API token is required. It is generated on an app-to-app basis. A new token should be created for this connector in order to be able to revoke it in Trello if needed. When the API token is invalid or missing, the connector will print an URL which should be visited to generate a new API token.

Task Parameters

Page Size

This parameter defines the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration.

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`

Example Values	5

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Extracted Data

Endpoint:	`{+serverUrl}/1/members/{memberId}`
Description:	Retrieve data of current member based on his apiKey and apiToken.
Documentation:	https://developer.atlassian.com/cloud/trello/rest/api-group-members/#api-members-id-get

Endpoint:	`{+serverUrl}/1/organizations/{organizationId}/members/`
Description:	List members of the organization.
Documentation:	https://developer.atlassian.com/cloud/trello/rest/api-group-organizations/#api-organizations-id-members-get

Endpoint:	`{+serverUrl}/1/enterprises/{enterpriseId}/members/`
Description:	List members of the enterprise.
Documentation:	https://developer.atlassian.com/cloud/trello/rest/api-group-enterprises/#api-enterprises-id-members-get

Tables

Table	Column	Type
members_of_organisation	• aaBlockSyncUntil • aaEmail • aaEnrolledDate • aaId • activityBlocked • bio • bioData • confirmed • email • fullName • idEnterprise • memberId • memberType • organisationId • status • url • username	• String • String • String • String • Boolean • String • String • Boolean • String • String • String • String • String • String • String • String • String

BambooHR

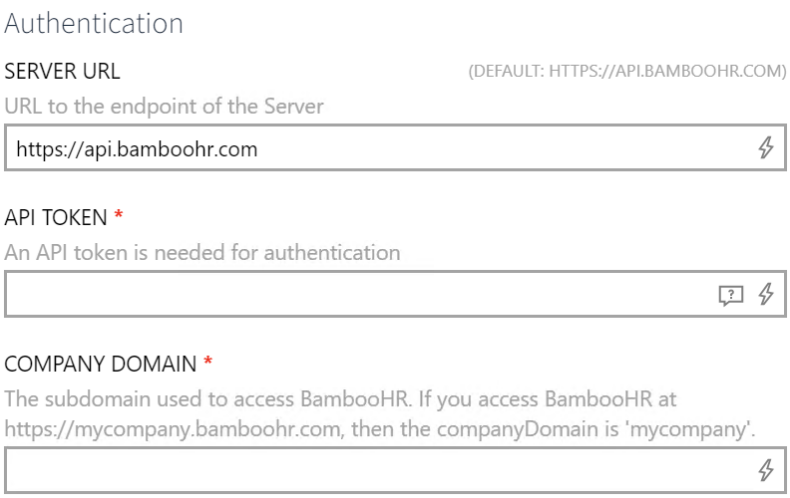
Connects to the BambooHR REST API and fetches the users. The API does not support pagination.

Prerequisites

In order to generate an API Key that can be used to authenticate with the BambooHR REST API execute the following steps.

1. Log in and click on the name in the upper right-hand corner of the page to get to the user context menu.
2. Select the API Keys option.
3. Create a new API Key for the usage with the connector.

Connector Setup



- By default the URL in the **SERVER URL** field is `https://api.bamboohr.com`.
- Enter the API Token that is used for the authentication with the API into the **API TOKEN** field.
- Enter the subdomain that will be used to access BambooHR into the **COMPANY DOMAIN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.bamboohr.com`
Example Values	`https://api.bamboohr.com`

API Token

This parameter contains the API token that is needed for authorization.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The authorization process is based on an API token. Additional information can be found under

Authorization with BambooHR.

Company Domain

This parameter contains the subdomain that is used to access BambooHR. For example, if accessing BambooHR at `https://mycompany.bamboohr.com`, the value in Company Domain is `mycompany`.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/gateway.php/{companyDomain}v1/meta/users`
Description:	List users.
Documentation:	https://documentation.bamboohr.com/reference#get-a-list-of-users-1

Tables

Table	Column	Type
`users`	• `email` • `employeeID` • `firstName` • `id` • `lastLogin` • `lastName` • `status`	• `String` • `String` • `String` • `String` • `String` • `String` • `String`

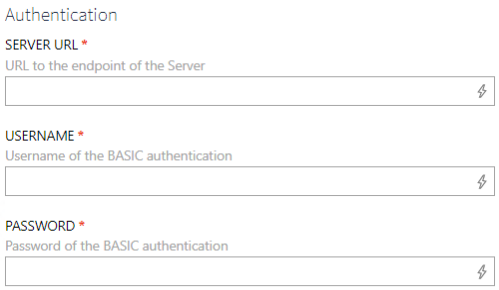
Beanstalk

This connector is used to connect to the Beanstalk REST API. It collects user, account, plan, and team data.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the Server into the **SERVER URL** field.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`30`
Example Values	`30`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/account.json`
Description:	Account endpoint of the Beanstalk REST API
Documentation:	https://api.beanstalkapp.com/account.html

Endpoint:	`{+serverUrl}/api/users.json`
Description:	User endpoint of the Beanstalk REST API
Documentation:	https://api.beanstalkapp.com/user.html

Endpoint:	`{+serverUrl}/api/plans.json`
Description:	Plan endpoint of the Beanstalk REST API
Documentation:	https://api.beanstalkapp.com/plan.html

Endpoint:	`{+serverUrl}/api/teams.json`
Description:	Team endpoint of the Beanstalk REST API

Documentation:	https://api.beanstalkapp.com/team.html

Tables

Table	Column	Type
account	• createdAt • id • name • ownerId • planId • publicKey • suspended • thirdLevelDomain • timeZone • updatedAt	• String • Integer • String • Integer • Integer • String • Boolean • String • String • String
users	• accountId • admin • createdAt • email • firstName • id • lastName • login • name • owner • timezone • updatedAt	• Integer • Boolean • String • String • String • Integer • String • String • String • Boolean • String • String
teams	• colorLabel • createdAt • id • updatedAt	• String • String • Integer • String
plans	• id • name • price • repositories • servers • storage • users	• Integer • String • Integer • Integer • Integer • Integer • Integer

Bloomfire

Connects to the Bloomfire REST API V2 to retrieve user data.

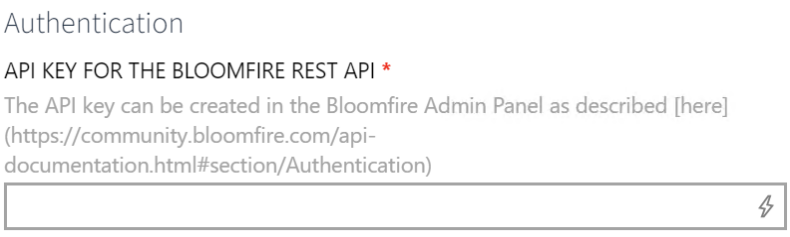
> **WARNING**
> The connector is untested and the API documentation is unclear in some points (e.g. neither rate limitation nor pagination is described). Therefore, it is likely that during a first deployment some adjustment is required.

Prerequisites

In order to create the API Key that is used to authenticate with the Bloomfire REST API execute the following steps.

1. Log in to Bloomfire with an Account that has the **Owner** role.
2. Click on the **Gear** icon and select **Settings** from the dropdown menu.
3. Select the **Miscellaneous** section and turn on the **Enable API access** setting.
4. Refresh the **Settings** page and copy the API Key that will be available in the **Miscellaneous** section now.

Connector Setup



- Enter the API Token that is used for the authentication with the API into the **API KEY FOR THE BLOOMFIRE REST API** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

API Key for the Bloomfire REST API

The API key can be created in the Bloomfire Admin Panel as described here.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v2/users`
Description:	List all user records.
Documentation:	https://community.bloomfire.com/api-documentation.html#tag/Users%2Fpaths%2F~1users%2Fget

Tables

Table	Column	Type
users	• active • answersCount • bio • commentsCount • company • createdAt • email • firstName • followed • followersCount • followingCount • id • lastName • likesCount • postsCount • questionsCount • role • seriesCount • title • updatedAt • viewsCount	• Boolean • Integer • String • Integer • String • String • String • String • Boolean • Integer • Integer • Integer • String • Integer • Integer • Integer • String • Integer • String • String • Integer

Box

Connects to the Box REST API to retrieve user data.

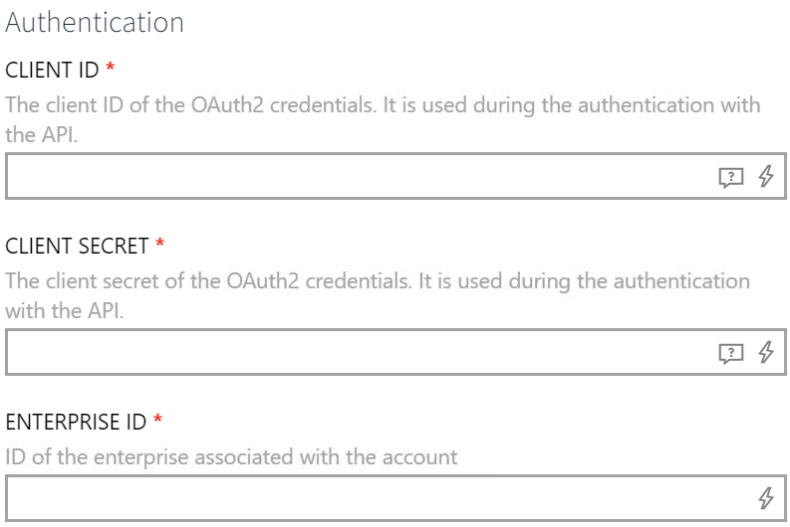
Prerequisites

Ensure that the account used for the setup has access to the Developer Console of the Box enterprise account.

1. Navigate to the Developer Console and click on the **Create New App** button.
2. Select the **Custom App** type from the list of application types.
3. Select User Authentication (OAuth 2.0) as authentication method.
4. Enter an easily identifiable name into the App Name field.
5. Click on the Create App button.

The Client ID and the Client Secret for the authentication should now be available. In order to be able to use these for the connector it is necessary to define the scopes that are needed. In order to work correctly, the connector needs the **Manage users** scope.

Connector Setup



- Enter the Client ID of the OAuth2 credentials into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth2 credentials into the **CLIENT SECRET** field.
- Enter the ID of the enterprise that is associated with the account that is used into the **ENTERPRISE ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Client ID

This parameter contains the Client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication

Type	String
Default Value	n/a
Example Values	`{empty}`

A registration of the app in the developer console as described here is needed. During this process the Client ID and the Client Secret are created. The connector requires the Application Scope "Manage Users" in the Administrative Actions section.

Client Secret

This parameter contains the Client Secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

A registration of the app in the developer console as described here is needed. During this process the Client ID and the Client Secret are created. The connector requires the Application Scope "Manage Users" in the Administrative Actions section.

Enterprise ID

This parameter contains the ID of the enterprise associated with the account.

Technical Name	`enterprise_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://api.box.com/oauth2/token`
Description:	The OAuth token endpoint of the Box REST API.
Documentation:	https://developer.box.com/guides/authentication/tokens/access-tokens/

Endpoint:	`https://api.box.com/2.0/user/`
Description:	Company user list.
Documentation:	https://developer.box.com/reference/get-users

Tables

Table	Column	Type
users	• address • avatarUrl • createdAt • id • jobTitle • language • login • maxUploadSize • modifiedAt • name • phone • spaceAmount • spaceUsed • status • timezone • type	• String • String • String • Integer • String • String • String • Integer • String • String • Integer • Integer • Integer • String • String • String

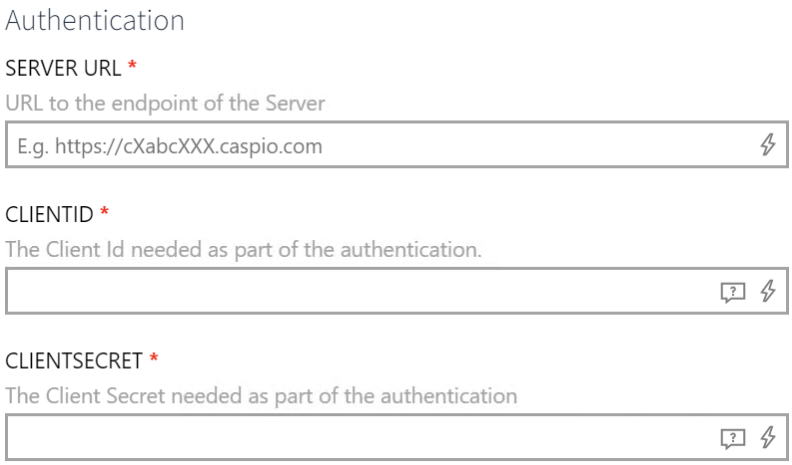
Caspio

Connects to the Caspio REST API and fetches applications and data pages. The API does not support paging.

Prerequisites

The Client ID and the Client Secret that are necessary for the authentication with the Caspio REST API are provided in the Caspio account. They can be found in the **Web Services Profiles** tab. Copy the Client ID and the Client Secret from the tab for usage with the connector.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID that is used for the authentication into the **CLIENTID** field.
- Enter the Client Secret that is used for the authentication into the **CLIENTSECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://cXabcCCC.caspio.com`

Client ID

This parameter contains the Client ID that is needed as part of the authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Client ID and the Client Secret are generated during the creation of the Web Services

Profiles as described here. After the generation process the Client ID and the Client Secret are displayed.

Client Secret

This parameter contains the Client Secret that is needed as part of the authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Client ID and the Client Secret are generated during the creation of the Web Services Profiles as described here. After the generation process the Client ID and the Client Secret are displayed.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/oauth/token`
Description:	Authenticate with the API and returns an access token in exchange for credentials.
Documentation:	https://howto.caspio.com/web-services-api/rest-api/authenticating-rest/

Endpoint:	`{+serverUrl}/rest/v2/applications`
Description:	Get list of applications.
Documentation:	https://demo.caspio.com/rest/swagger#/Applications/ApplicationsV2_Get

Endpoint:	`{+serverUrl}/rest/v2/applications/{externalKey}/datapages`
Description:	Get list of datapages per application.
Documentation:	https://demo.caspio.com/rest/swagger#/Applications/ApplicationsV2_GetDataPagesByApps

Tables

Table	Column	Type
`applications`	• `appName` • `dataPagesCount` • `dateCreated` • `dateModified` • `externalKey`	• `String` • `Integer` • `String` • `String` • `String`
`data_pages`	• `appKey` • `appName` • `createdBy` • `dateCreated` • `dateModified` • `modifiedBy` • `name` • `note` • `path` • `type`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`

Cisco Meraki

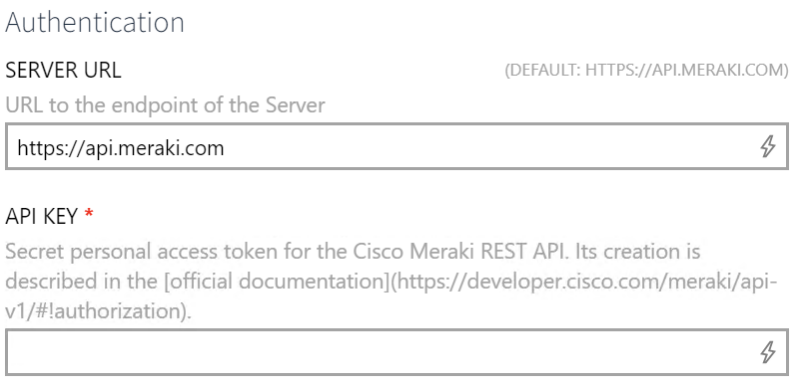
Connects to the Cisco Meraki REST API (v1) to fetch organizations, devices, and inventory devices and writes devices and inventory devices data.

Prerequisites

A Meraki API key can be obtained by executing the following steps:

- Open the Meraki dashboard using the following URL: https://dashboard.meraki.com.
- Log in and go to **Organization** > **Settings**.
- Ensure that the **Enable access to Cisco Meraki Dashboard API** checkbox is checked.
- Go to the **Profile** page by clicking on **My profile**.
- Click on the **Generate new API key** button to create a new API key and save the key to a secure location.

Connector Setup



- Enter the API key that is used for the authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222

the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.meraki.com`
Example Values	`https://api.meraki.com`

API Key

This parameter should contain the secret personal access token for the Cisco Meraki REST API. Its creation is described in the official documentation.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/api/v1/organizations
Description:	Get oragnizations.
Documentation:	https://developer.cisco.com/meraki/api-v1/#!get-organizations

Endpoint:	{+serverUrl}/api/v1/organizations/{organizationId}/devices
Description:	Get devices for organization.
Documentation:	https://developer.cisco.com/meraki/api-v1/#!get-organization-devices

Endpoint:	`{+serverUrl}/api/v1/oragnizations/{organizationId}/inventoryDevices`
Description:	Get inventory devices for organization.
Documentation:	https://developer.cisco.com/meraki/api-v1/#!get-organization-inventory-devices

Tables

Table	Column	Type
devices	• address • configurationUpdateAt • firmware • lanIp • lat • lng • mac • model • name • networkId • notes • organizationId • organizationName • productType • serial • url	• String • String • String • String • Number • Number • String • String • String • String • String • String • String • String • String • String
inventory_devices	• claimedAt • licenseExpirationDate • mac • model • name • networkId • orderNumber • organizationId • organizationName • productType • serial	• String • String • String • String • String • String • String • String • String • String • String

Cisco Umbrella

Connects to the Cisco Umbrella REST API to retrieve user data.

Prerequisites

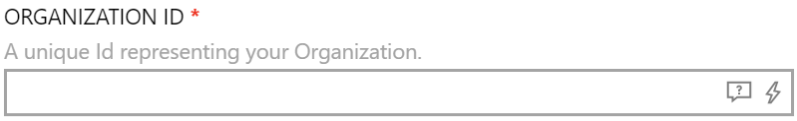
An Umbrella API key and the API secret can be obtained by executing the following steps:

- Log into Umbrella.
- Navigate to **Admin** > **API Keys** and click on **Create** or in the management console navigate to **Settings** > **API Keys** and click on **Add**.
- Select **Umbrella Management** and click on **Create**.
- Expand the **Umbrella Management** and save the API Key and the Secret to a secure location. If the API Key and/or the Secret are lost, it will be necessary to create a new API Key.
- Click on the **To keep it secure, ...** checkbox.
- Click on **Close**.

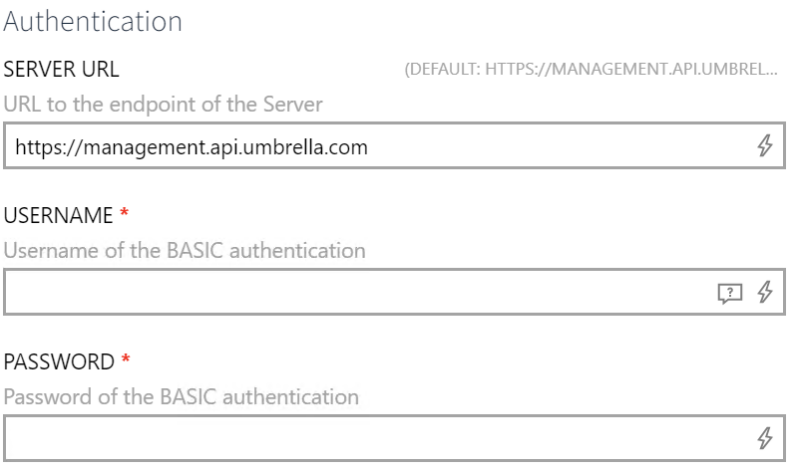
Additionally to the API key and the API secret, the organization ID is needed in order to use the connector. The organization ID can be found as part of the Umbrella URL:

```
https://dashboard.umbrella.com/o/<organizationId>/
```

Connector Setup



- Enter the ID of the Organization into the Organization ID field.



- Enter the username used for the BASIC authentication into the **USERNAME** field.
- Enter the password used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Organization ID

This parameter contains a unique ID representing the organization.

Technical Name	`organization_id`
Category	Functional

Type	String
Default Value	{empty}
Example Values	

An Organization ID can be obtained as described here.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	server_url
Category	Authentication
Type	String
Default Value	https://api.umbrella.com
Example Values	https://api.umbrella.com

Username

This parameter should contain the username of the BASIC authentication.

Technical Name	username
Category	Authentication
Type	String
Default Value	{empty}
Example Values	

The authentication with the API endpoint is done via Basic authentication as is explained in the official documentation.

Password

This parameter should contain the password of the BASIC authentication.

Technical Name	username

Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/organizations/{organizationId}users`
Description:	Get users.
Documentation:	http://developer.cisco.com/docs/cloud-security/#!users-and-roles-endpoints

Tables

Table	Column	Type
`users`	• `email` • `firstname` • `id` • `lastLoginTime` • `lastname` • `role` • `roleId` • `status` • `timezone`	• `String` • `String` • `Integer` • `String` • `String` • `String` • `Integer` • `String` • `String`

Cisco Webex

The connector connects to the Cisco Webex API and fetches users, meetings, licenses, and devices. This connector requires admin privileges.

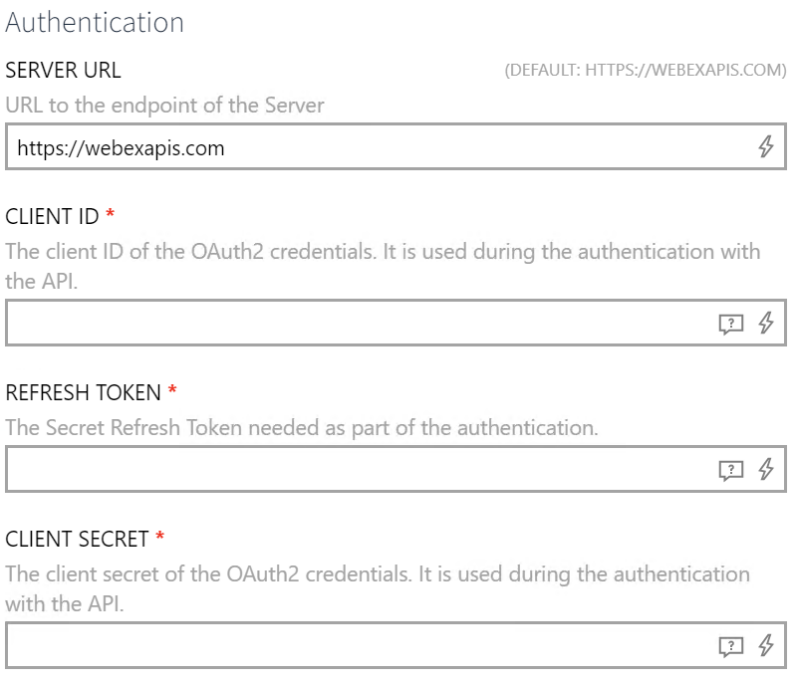
Prerequisites

In order to use the connector, it is necessary to register RayVentory Data Hub with Webex. This can be done by executing the following steps.

- Log in to Webex and select **My Webex Apps** from the menu underneath the avatar on the top of the page.
- Click on **Create a New App**.
- Click on **Create an Integration**.
- Follow the instructions in the wizard.
- After RayVentory Data Hub has successfully been registered the Client ID, the Client Secret, and the Refresh Token will be shown. Save the Information to a secure location as it will not be available again. If the Client Secret is lost, it will be necessary to register RayVentory Data Hub again.

The Cisco Webex connector requires an Admin account with `admin` scope.

Connector Setup



- Enter the client ID that has been created for RayVentory Data Hub into the **CLIENT ID** field.
- Enter the refresh token that has been created for RayVentory Data Hub into the **REFRESH TOKEN** field.
- Enter the client secret that has been created for RayVentory Data Hub into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`https://webexapis.com`
Example Values	`https://webexapis.com`

Client ID

This parameter should contain the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The Client ID is generated during the Integration Setup. Use of connector requires the Admin account with admin scopes. Selecting a correct redirect domain is highly security relevant, because authentication tokens will be sent to those domains later in the process. A good choice would be the domain of the company or `http://localhost`. After the integration, the Client ID, Client Secret, and Refresh Token are displayed.

Refresh Token

This parameter should contain the Secret Refresh Token needed as part of the authentication.

Technical Name	`refresh_token`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The Refresh Token is a long lived token which can be exchanged for short lived Access Tokens, which in turn are used by the connector to fetch the data. The Refresh Token must be generated interactively with the Client Secret and Client ID as described in the official documentation. The refresh token expires after 90 days. Afterwards, the whole authentication process must be repeated.

Client Secret

This parameter should contain the Client Secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

A Client Secret is generated during application setup along with the Client ID and Refresh Token parameter.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`10`
Example Values	`10`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/access_token`
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://developer.webex.com/docs/integrations#getting-an-access-token

Endpoint:	`{+serverUrl}/v1/people`
Description:	Users endpoint of the Cisco Webex REST API. Requires an adminstrator auth token with the `spark-admin:people_read` scope.
Documentation:	https://developer.webex.com/docs/api/v1/people/list-people

Endpoint:	`{+serverUrl}/v1/meetings`

Description:	Meetings endpoint of the Cisco Webex REST API. Requires an administrator auth token with the `meeting:schedules_read` and `meeting:participants_read` scopes.
Documentation:	https://developer.webex.com/docs/api/v1/people/list-people

Endpoint:	`{+serverUrl}/v1/licenses`
Description:	Licenses endpoint of the Cisco Webex REST API. Requires an administrator auth token with the `spark-admin:licenses_read` scope.
Documentation:	https://developer.webex.com/docs/api/v1/licenses/list-licenses

Endpoint:	`{+serverUrl}/v1/devices`
Description:	Devices endpoint of the Cisco Webex REST API. Requires an administrator auth token with the `spark-admin:devices_read` scope.
Documentation:	https://developer.webex.com/docs/api/v1/devices/list-devices

Tables

Table	Column	Type
`users`	• `created` • `displayName` • `firstName` • `id` • `lastModified` • `lastName` • `locationId` • `nickName` • `orgId` • `status` • `timezone` • `type`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`
`user_emails`	• `email` • `userId`	• `String` • `String`
`user_licenses`	• `license` • `userId`	• `String` • `String`
`user_roles`	• `role` • `userId`	• `String` • `String`
`meetings`	• `hostKey` • `hostUserId` • `id` • `meetingNumber` • `meetingType` • `title`	• `String` • `String` • `String` • `Integer` • `String` • `String`
`licenses`	• `consumedUnits` • `id` • `name` • `siteType`	• `Integer` • `String` • `String` • `String`

Table	Column	Type
	• subscriptionId • totalUnits	• String • Integer
devices	• connectionStatus • created • displayName • id • ip • mac • orgId • personId • placeId • primarySidUrl • product • serial • software • upgradeChannel	• String • String • String • String • String • String • String • String • String • String • String • String • String • String
device_tags	• deviceId • tag	• String • String

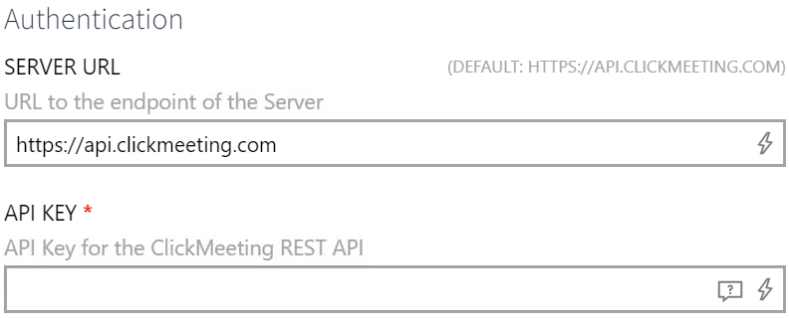
ClickMeeting

Connects to the ClickMeeting REST API and retrieves conferences and sessions.

Prerequisites

The API Key that is needed for the authentication with the ClickMeeting REST API can be created after logging in to a ClickMeeting user account. Navigate to the **Settings** tab. In the **Settings** tab, the API Key can be created.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key used for the authentication with the ClickMeeting REST API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.clickmeeting.com`
Example Values	`https://api.clickmeeting.com`

API Key

This parameter contains the API Key that is used for the authentication with the ClickMeeting REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The API Key can be obtained as described here.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/conferences/active`
Description:	List active conferences.
Documentation:	https://dev.clickmeeting.com/api-doc/#get_conferences

Endpoint:	`{+serverUrl}/v1/conferences/inactive`
Description:	List inactive conferences.
Documentation:	https://dev.clickmeeting.com/api-doc/#get_conferences

Endpoint:	`{+serverUrl}/v1/conferences/{roomId}/sessions`
Description:	List sessions if they exist for a given Room ID.
Documentation:	https://dev.clickmeeting.com/api-doc/#get_sessions

Tables

Table	Column	Type
conferences	• accessType • autologinHash • automatedEnabled • ccc • createdAt • embedRoomUrl • endsAt • id • lobbyDescription • lobbyEnabled • name • nameUrl • paidEnabled • parentId • permanentRoom • phoneListenerPin • phonePresenterPin • registrationEnabled • roomPin • roomType • roomUrl • startsAt • status • timezone • timezoneOffset • type • updatedAt • widgetsHash	• Integer • String • Integer • String • String • String • String • Integer • String • Boolean • String • String • Integer • String • Boolean • Integer • Integer • Integer • Integer • String • String • String • String • String • Integer • Integer • String • String
sessions	• endDate • id • maxVisitors • startDate • totalVisitors	• String • Integer • Integer • String • Integer

Cloud Academy

Connects to the Cloud Academy API and exports company usages, consumption contents, members, team usages and user usages. This connector works only for enterprise accounts.

> **WARNING**
> This connector is completely untested! Although it is mostly implemented, there are some open questions, which could not be solved with the official documentation. Please report to Support if you intend to use this connector.

Prerequisites

Calls to the Cloud Academy API are identified by API keys. It is using the OAuth2 with client credential flow. Keep in mind that the SSL channel will securely encrypt the key pairs. In order to use the connector it is necessary to generate an API Key in the Cloud Academy environment.

API Key Generation

API Keys can be generated by enterprise members with Admin permissions. They can view their own API keys on the settings area of the Company Account. Each Admin has his own distinct key pairs. An Admin can generate new API Keys at any time. If a new pair is generated the previous pair is revoked.

API Call Authentication

To authenticate an API call a valid access token is needed for each request. It is possible to generate the token at the following dedicated endpoint:

https://cloudacademy.com/oauth2/token/

The token generation endpoint accepts a POST call and works using Basic Authentication where the user and the password to be provided are the API keys:

The username is the CLIENT_ID.
The password is the CLIENT_SECRET.

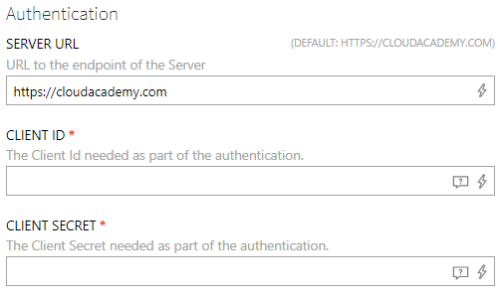
Additionally the API also requires the content-type to be set to 'application/x-www-form-urlencoded' and the body must contain 'grant_type=client_credentials'.

The token has a limited duration of 10 hours and can either be cached to be reused and renewed when it expires or a new one can be generated before each API call.

> **Best practice:**

	It is recommended to create a dedicated Admin account for the use with the connector.

Connector Setup



- By default, the **SERVER URL** for Cloud Academy has already been preconfigured for the connector.
- Enter the **CLIENT ID** (username) defined for the Cloud Academy Admin user.
- Enter the **CLIENT SECRET** (password) used for the Cloud Academy Admin user.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`

Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Create Company Usage Report

This parameter can be used in order to activate or deactivate the creation of the company usage report. Before activating this parameter keep in mind, that the creation of the company usage report can take a lot of time.

Technical Name	`create_company_usage_report`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Create Consumption Content Report

This parameter can be used to activate or deactivate the creation of the consumption content report. Before activating this parameter keep in mind, that the creation of the consumption content report can take a lot of time.

Technical Name	`create_consumption_content_report`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Consumption Content Team IDs

This parameter contains a list of team IDs for which to generate the consumption content report.

Technical Name	`consumption_content_team_ids`
Category	Functional
Type	Array
Default Value	n/a

Example Values	

Consumption Content User IDs

This parameter contains a list of user IDs for which to generate the consumption content report.

Technical Name	`consumption_content_user_ids`
Category	Functional
Type	Array
Default Value	n/a
Example Values	

Create Members Report

This parameter can be used in order to activate or deactivate the creation of the members report. Before activating this parameter keep in mind, that the creation of the members report can take a lot of time.

Technical Name	`create_members_report`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Members Report Team ID

This parameter defines if the member report will only be downloaded for a given team ID.

Technical Name	`members_team_id`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

Setting this field to `null` will override the default value.

Create Team Usages Report

This parameter can be used in order to activate or deactivate the creation of the team usages report. Before activating this parameter keep in mind, that the creation of the team usages report can take a lot of time.

Technical Name	`create_team_usages_report`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Team Usages Team IDs

This parameter contains a list of team IDs for which to generate the team usages report.

Technical Name	`team_usages_team_ids`
Category	Functional
Type	Array
Default Value	n/a
Example Values	

Create User Usages Report

This parameter can be used in order to activate or deactivate the creation of the user usages report. Before activating this parameter keep in mind, that the creation of the user usages report can take a lot of time.

Technical Name	`create_user_usages_report`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

User Usages User IDs

This parameter contains a list of user IDs for which to generate the user usages report.

Technical Name	`user_usages_user_ids`
Category	Functional
Type	Array
Default Value	n/a
Example Values	

Company Usage Report Period

This parameter defines the period of time for which the company usage report will be created. The interval needs to be defined using the ISO 8601 norm.

Technical Name	`company_usage_period`
Category	Functional
Type	String
Default Value	`P30D`

Example Values	`P30D`
	`2020-10-01T14:15Z/2020-11-20T16:00Z`
	`2020-10-01T14:15Z/P2DT5H45M`
	`P1DT1H45M/2020-11-01T14:15Z`
	`PT21H45M`

Be aware:
Repeating intervals are not supported!

Team Usages Period

This parameter defines the period of time for which the team usages report will be created. The interval needs to be defined using the ISO 8601 norm.

Technical Name	`team_usages_period`
Category	Functional
Type	String
Default Value	`P30D`

Example Values	`P30D`
	`2020-10-01T14:15Z/2020-11-20T16:00Z`
	`2020-10-01T14:15Z/P2DT5H45M`
	`P1DT1H45M/2020-11-01T14:15Z`
	`PT21H45M`

Be aware:
Repeating intervals are not supported!

User Usages Period

This parameter defines the period of time for which the user usages report will be created. The interval needs to be defined using the ISO 8601 norm.

Technical Name	`user_usages_period`
Category	Functional
Type	String
Default Value	`P30D`

Example Values	`P30D`
	`2020-10-01T14:15Z/2020-11-20T16:00Z`
	`2020-10-01T14:15Z/P2DT5H45M`
	`P1DT1H45M/2020-11-01T14:15Z`
	`PT21H45M`

Be aware:
Repeating intervals are not supported!

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://cloudacademy.com`
Example Values	`https://cloudacademy.com`

Client ID

This parameter contains the client ID needed as part of the authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The client ID and the client secret are created from the **Settings and Integration** menu in the Admin panel. The authentication process is described in the official documentation.

Be aware:
Since it is only possible to generate one client ID and client secret per account it is advised to create a new account for every integration.

Client Secret

This parameter contains the client secret that is needed as part of the authentication.

Technical Name	`client_secret`
Category	Authentication

Type	String
Default Value	n/a
Example Values	

The client ID and the client secret are created from the **Settings and Integration** menu in the Admin panel. The authentication process is described in the official documentation.

Be aware:
Since it is only possible to generate one client ID and client secret per account it is advised to create a new account for every integration.

Task Parameters

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/oauth2/token/`
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://support.cloudacademy.com/hc/en-us/articles/360050141472-Generating-an-Authentication-Token#h_01EM6VRYE9RJXXJVB8E7RN6TDY

Endpoint:	`{+serverUrl}/reports/jobs/{id}`
Description:	Retrieves detailed information about the given report job.
Documentation:	https://cloudacademy.com/restapi/docs/swagger

Endpoint:	`{+serverUrl}/reports/company-usage/}`
Description:	Triggers the report generation for company usages.
Documentation:	https://cloudacademy.com/restapi/docs/swagger

Endpoint:	`{+serverUrl}/reports/consumption-content`
Description:	Triggers the generation of a content consumption report.
Documentation:	https://cloudacademy.com/restapi/docs/swagger

Endpoint:	`{+serverUrl}/reports/members`
Description:	Triggers the generation of a members report.
Documentation:	https://cloudacademy.com/restapi/docs/swagger

Endpoint:	`{+serverUrl}/reports/team-usage/`
Description:	Triggers the generation of a team usage report.
Documentation:	https://cloudacademy.com/restapi/docs/swagger

Endpoint:	`{+serverUrl}/reports/user-usage/`
Description:	Triggers the generation of a user usage report.

Documentation:	https://cloudacademy.com/restapi/docs/swagger

CloudSphere IQSonar

Connects to the CloudSphere IQSonar V2 REST API and fetches the following data:

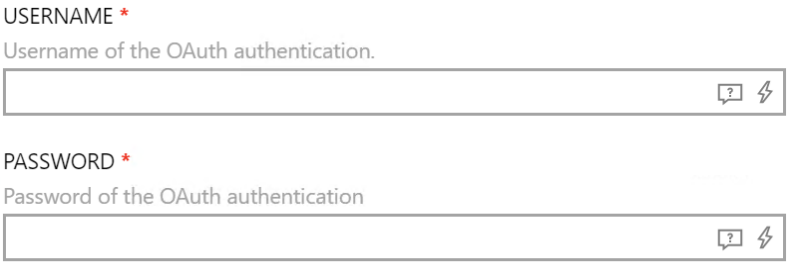
- installed software for all devices
- applications for all devices, with:
  - application features
  - database packs
  - database options
  - database users
  - services for all devices
  - virtual hosts of all devices
  - clusters for all devices with virtual host

Prerequisites

For authentication with Cloudsphere IQSonar the URL of the server, the username of a valid user and the corresponding password are needed.

Connector Setup

- Enter the URL to the IQSonar instance into the **SERVER URL** field.



- Enter the username for the OAuth authentication into the **USERNAME** field.
- Enter the password for the OAuth authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`

Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Page Skip

This parameter defines if failed pages are skipped before the whole paging fails. Setting this to something not zero can lead to inconsistent or incomplete data.

Technical Name	`max_skip`
Category	Functional
Type	Integer
Default Value	`0`
Example Values	`0, 3`

Server Url

This parameter contains the URL to the IQSonar instance.

Technical Name	`server_url`
Category	Functional
Type	String
Default Value	n/a
Example Values	`https://somehost.example.com/api/v2`

Last Seen Days Filter

Ignore devices which have not been updated for a given number of days. If null, no devices will be ignored.

Technical Name	`last_seen_days`
Category	Functional
Type	Integer `null`
Default Value	`null`
Example Values	`null, 90`

Testrun

Set to fetch only the data of the first n devices where n is the number defined in this parameter.

Technical Name	`test_run`
Category	Functional
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10`

Filter Devices

This parameter defines a filter used to fetch device data only for the provide Device IDs.

Technical Name	`filter_device_ids`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null`

Running this connector can take a long time. If experiencing problems with specific devices, set this parameter to do a test run.

Fetch Services

This parameter can be used to activate or deactivate the download of services.

Technical Name	`fetch_services`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

The service information is always fetched but contains a lot of data. If this parameter is false, then this data is not stored. If HDD space is limited, this can save some space.

Fetch Processes

This parameter can be used to activate or deactivate the download of processes.

Technical Name	`fetch_processes`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

The service information is always fetched but contains a lot of data. If this parameter is false, then this data is not stored. If HDD space is limited, this can save some space.

Fetch Installed Software

This parameter can be used to activate or deactivate the download of installed software.

Technical Name	`fetch_installed_software`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`

Example Values	`true`

Fetching installed software is slow, since it requires additional API calls. If this parameter is `false`, installed software is not fetched.

Fetch Applications

This parameter can be used to activate or deactivate the download of applications.

Technical Name	`fetch_applications`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Fetching applications is slow, since it requires additional API calls. If this parameter is `false`, applications are not fetched.

Authentication

Ignore Certificates

This parameter can be used to turn off all validity checks of SSL/TLS certificates (highly discouraged!).

Technical Name	`ignore_certificates`
Category	Authentication
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Username

This parameter contains the username of the OAuth authentication.

Technical Name	`username`

Category	Authentication
Type	String
Default Value	n/a
Example Values	

The connector is using the OAuth 'password' grant type.

Password

This parameter contains the password of the OAuth authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The connector is using the OAuth 'password' grant type.

Task Parameters

Page Size

This parameter defines the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`50`
Example Values	`50`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Rate Limiter Number of Requests

Limits the number of requests issued in the time interval set by the parameter Rate Limiter Duration.

Technical Name	`rate_limiter_num_requests`
Category	Technical

Type	Integer
Default Value	`1000`
Example Values	`1000, 20`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly.

Rate Limiter Duration

This parameter represents the time interval during which at most Rate Limiter Number of Requests are issued by the connector.

Technical Name	`rate_limiter_duration`
Category	Technical
Type	String
Default Value	`PT1S`
Example Values	`PT1S, PT1M, PT2H`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly.

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`10000, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`180000`
Example Values	`180000`

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/devices/`
Description:	List of short device object.
Documentation:	n/a

Tables

Table	Column	Type
devices	• biosManufacturer • biosName • biosVersion • coreCount • cpuCount • cpuManufacturer • cpuModel • cpuSpeed • cpuType • deviceId • deviceName • deviceTypeHint • evcEnabled • fqdn • ipAddress • isHyperthreaded • isHypervisor • isVirtual • lastDeviceUser • lastScan • locationName • macAddress • manufacturer • maxCapacity • model • onlineVirtualCpu • operatingSystemBuildNumber • operatingSystemEdition • operatingSystemName • operatingSystemProductDescription • operatingSystemProductName	• String • String • String • Integer • Integer • String • String • Number • String • String • String • String • Boolean • String • String • Boolean • Boolean • Boolean • String • String • String • String • String • String • String • String • String • String • String • String • String

Table	Column	Type
	• operatingSystemProductVendor • operatingSystemServicePack • operatingSystemVersion • osInstallDate • partitionMode • partitionType • powerState • serialNumber • socketCount • state • status • threasPerCore • totalCoreCount • totalMemoryMb • uptime • virtualHostId • virtualHostName • virtualName • virtualizationPlatform • vmotionEnabled	• String • String • String • String • String • String • String • String • Integer • String • String • Integer • Integer • Integer • String • String • String • String • String • String
virtual_hosts	• coreCount • cpuCount • deviceId • deviceTypeHint • hostName • importLocationId • isHypervisor • isVirtual • lastScan • manufacturer • model • operatingSystemBuildNumber • operatingSystemEdition • operatingSystemName • operatingSystemProductDescription • operatingSystemProductName • operatingSystemProductVendor • operatingSystemServicePack • operatingSystemVersion • serialNumber • totalMemoryMb • virtualHostId	• Integer • Integer • String • String • String • String • Boolean • Boolean • String • String • String • String • String • String • String • String • String • String • String • String • Integer • String
device_clusters	• clusterId • clusterName • clusterType • deviceId • virtualHostId	• String • String • String • String • String

Table	Column	Type
services	• description • deviceId • displayName • installDate • name • path • startMode • status	• String • String • String • String • String • String • String • String
processes	• deviceId • name • path • pid • ppid • processArguments • userName	• String • String • String • Integer • Integer • String • String
installed_software	• deviceId • installDate • lastUsedDate • name • operatingSystem • path • usageCount • vendor • version	• String • String • String • String • String • String • String • String • String
applications	• applicationId • deviceId • edition • instanceName • lastScan • parentClusterId • parentClusterName • parentClusterType • productDescription • productName • productVendor • version	• String • String • String • String • String • String • String • String • String • String • String • String
application_features	• applicationId • auxCount • currentlyUsed • dbId • detectedUsageCount • deviceId • firstUsageDate • instanceName • lastSampleDate • lastUsageDate	• String • String • String • String • String • String • String • String • String • String

Table	Column	Type
	• name • sampleInterval • totalSamplesCount • version	• String • String • String • String
database_packs	• accessAgreed • accessGranted • applicationId • deviceId • instanceName • packLabel • packName • targetType	• String • String • String • String • String • String • String • String
database_options	• applicationId • deviceId • instanceName • optionAbbreviation • optionInstalled • optionName • optionUsed	• String • String • String • String • String • String • String
database_users	• accountStatus • applicationId • credentialType • dateCreated • dateCreatedUtc • dbid • deviceId • expiryDate • lastLoggedinUtc • lastLogin • lockDate • userName • userRole	• String • String • String • String • String • Integer • String • String • String • String • String • String • String

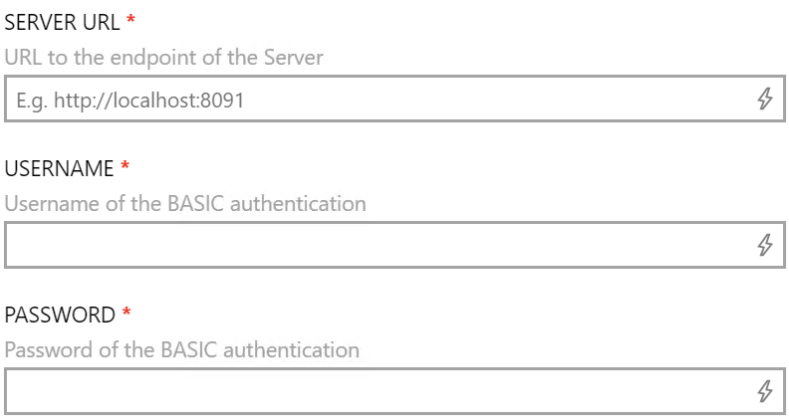
Couchbase

Connects to the Couchbase REST API and fetches clusters and nodes.

Prerequisites

For authentication with the Couchbase REST API the URL of the server, the username of a valid user and the corresponding password are needed.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`http://localhost:8091`

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`10000, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/pools`
Description:	Fetch cluster. Requires the Full Admin, Cluster Admin, or Read-Only Admin role.
Documentation:	https://docs.couchbase.com/server/current/rest-api/rest-cluster-get.html

Endpoint:	`{+serverUrl}/pools/nodes`
Description:	List nodes. Requires the Full Admin, Cluster Admin, or Read-Only Admin role.
Documentation:	https://docs.couchbase.com/server/current/rest-api/rest-node-get-info.html

Tables

Table	Column	Type
`cluster`	• `ale` • `asn1` • `compiler` • `couch` • `couchIndexMerger` • `couchSetView` • `couchViewParser` • `crypto` • `implementationVersion` • `inets` • `isAdminCreds` • `isEnterprise` • `isROAdminCreds` • `kernel` • `lhttpc` • `mapreduce` • `mochiweb` • `nsServer` • `oauth` • `osMon` • `publicKey` • `sasl` • `ssl` • `stdlib` • `syntaxTools` • `uuid` • `xmerl`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `Boolean` • `Boolean` • `Boolean` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`
`node_metadata`	• `balanced` • `bucketsUri` • `cbasMemoryQuota` • `checkPermissionsUri` • `clusterName` • `eventingMemoryQuota` • `ftsMemoryQuota` • `hddFree` • `hddQuotaTotal` • `hddTotal`	• `Boolean` • `String` • `Integer` • `String` • `String` • `Integer` • `Integer` • `Integer` • `Integer` • `Integer`

Table	Column	Type
	• hddUsed • hddUsedByData • indexMemoryQuota • indexStatusUri • maxBucketCount • maxCollectionCount • maxScopeCount • memoryQuota • name • nodeStatusesUri • ramQuotaTotal • ramQuotaTotalPerNode • ramQuotaUsed • ramQuotaUsedPerNode • ramTotal • ramUsed • ramUsedByData • rebalanceProgressUri • rebalanceStart • rebalanceStatus • rebalanceSuccess • remoteClustersUri • serverGroupsUri • stopRebalancingUri • terseBucketsBase • terseStreamingBucketsBase • validateUri	• Integer • Integer • Integer • String • Integer • Integer • Integer • Integer • String • String • Integer • Integer • Integer • Integer • Integer • Integer • Integer • String • Integer • String • Integer • String • String • String • String • String • String
node	• addressFamily • addressFamilyOnly • allocstall • clusterCompatibility • clusterMembership • cmdGet • configuredHostname • couchApiBase • couchApiBaseHttps • couchDocsActualDiskSize • couchDocsDataSize • couchSpatialDataSize • couchSpatialDiskSize • couchViewActualDiskSize • couchViewsDataSize • cpuCoresAvailable • cpuCount • cpuStolenRate • cpuUtilizationRate • currItems • currItemsTot	• String • Boolean • Integer • Integer • String • Integer • String • String • String • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Number • Integer • Integer

Table	Column	Type
	• direct • distTcp • distTls • epBgFetched • getHits • hostname • httpsCapi • httpsMgmt • indexDataSize • indexDiskSize • mcdMemoryAllocated • mcdMemoryReserved • memFree • memLimit • memTotal • memUsed • memoryFree • memoryTotal • name • nodeEncryption • nodeUuid • ops • os • otpNode • recoveryType • status • swapTotal • swapUsed • thisNode • uptime • vbActiveNumNonResident • vbReplicaCurrItems • version	• Integer • Integer • Integer • Integer • Integer • String • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Name • Boolean • String • Integer • String • String • String • String • Integer • Integer • Boolean • String • Integer • Integer • String
node_bucket_name	• bucketName • clusterName • uuid	• String • String • String

Coupa

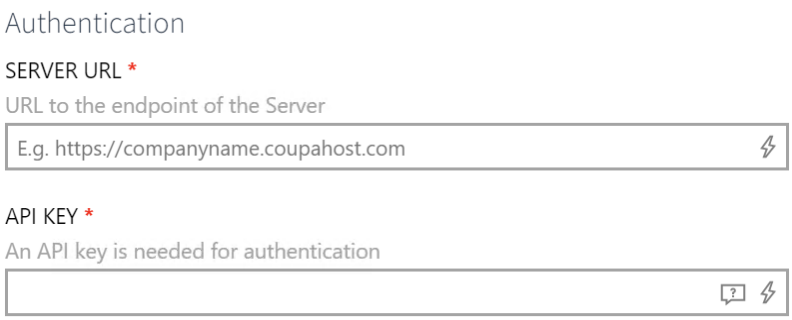
Connects to the Coupa REST API and fetches user data. Coupa provides an SFTP service for large transactions. If encountering performance issues with this connector, consider using SFTP instead.

Prerequisites

In order to create an API Key that will be used for the authentication with the Coupa REST API execute the following steps.

1. Go to **Setup** > **Integrations** > **API Keys**.
2. Click on the **Create** button.
3. Provide at least the **Contact Login** and the **Contact Email** information (since these fields are mandatory). Both must be unique.
4. Save the API Key to a secure location. This is the last time that the key will be shown. If it is lost, a new API key needs to be generated.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key used for the authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://companyname.coupahost.com`

API Key

This parameter contains the API Key that is needed for the authentication.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The authorization process is based on an API Key. The generation of an API Key is described in the official documentation.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`50`
Example Values	`50`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/users`
Description:	List users.
Documentation:	https://success.coupa.com/Integrate/Technical_Documenation/API/Resources/Reference/users

Tables

Table	Column	Type
users	• accountSecurityType • active • apiUser • authenticationMethod • businessGroupSecurityType • createdAt • defaultLocale • editInvoiceOnQuickEntry • email • employeeNumber • expenseUser • firstname • fullname • function • gpoEntity • id • inventoryUser • lastname • login • mentionName • phoneMobile • phoneWork • purchasingUser • salesforceId • sourcingUser • ssoIdentifier • subsidary • updatedAt	• Integer • Boolean • Boolean • String • Integer • String • String • Boolean • String • String • Boolean • String • String • String • String • Integer • Boolean • String • String • String • String • String • Boolean • String • Boolean • String • String • String

Crowdstrike Falcon

A connector for the Falcon REST API. It fetches device details for all connected devices.

Prerequisites

In order to view, create, or modify API clients or keys for a Crowdstrike API client it is necessary to use an Account designated as Falcon Administrator role. Secrets will be only shown once a new API client is created or it is reset.

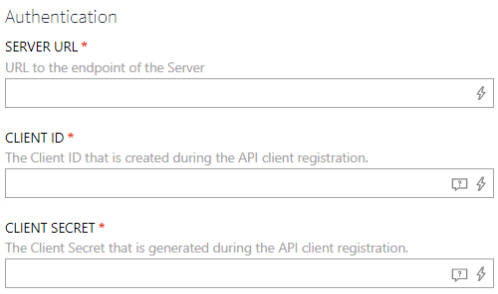
Navigate to **Support** > **API Clients**. All existing clients will be shown in a list. Furthermore it is possible to view the audit log or add a new API client.

Click on **Add new API Client** in order to add an API client for usage with RayVentory Data Hub. Add a descriptive name for the client (for example RayVentory Data Hub) and add the appropriate API scopes. Than click on the **ADD** button.

After clicking on the **ADD** button, the Client ID and the Client Secret will be presented. Since the Client Secret will only be shown this one time, ensure that it will be stored in a secure place. If the Client Secret is lost, a reset must be performed and any applications relying on the Client Secret will need to be updated with the new credentials.

Best practice:
It is recommended to create an API Client that is dedicated to the use with RayVentory Data Hub only. Therefore, all rights for RayVentory Data Hub can be easily revoked by deactivating the API Client, should this be necessary.

Connector Setup



The following information are necessary for the setup of the Crowdstrike Falcon connector:

- The **SERVER URL** of the Crowdstrike Falcon server that is used.
- The **CLIENT ID** that was shown after the setup of the API client that should be with for the connector.
- The **CLIENT SECRET** that was shown after the setup of the API client that should be used with the connector.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`n/a`
Example Values	

Client ID

This parameter contains the Client ID that is created during the API client registration.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`n/a`
Example Values	

In order to connect to the API, one needs to create an API client. The detailed process on how to create an API client and the corresponding credentials is described in the official documentation.

Client Secret

This parameter contains the Client Secret that is generated during the API client registration.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	`n/a`
Example Values	

In order to connect to the API, one needs to create an API client. The detailed process on how to create an API client and the corresponding credentials is described in the official documentation.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer

Default Value	`5000`
Example Values	`5000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/oauth2/token`
Description:	Endpoint to obtain an OAuth token.
Documentation:	https://falcon.eu-1.crowdstrike.com/support/doucmentation/93/oauth2-auth-token-apis

Endpoint:	`{+serverUrl}/devices/queries/devices/v1`
Description:	Fetches the list of devices, connected to Falcon.
Documentation:	https://falcon.eu-1.crowdstrike.com/support/doucmentation/84/host-and-host-group-management-apis

Endpoint:	`{+serverUrl}/devices/entities/devices/v1`
Description:	Does a bulk export of device details for a given list of devices.
Documentation:	https://falcon.eu-1.crowdstrike.com/support/doucmentation/84/host-and-group-management-apis

Tables

Table	Column	Type
device_details	• agentLoadFlags • agentLocalTime • agentVersion • biosManufacturer • biosVersion • buildNumber • cid • configIdBase • configIdBuild • configIdPlatform • cpuSignature • deviceId • externalIp • firstSeen • groupHash • groups • hostname • lastSeen • localIp • macAddress • machineDomain • majorVersion • minorVersion • modifiedTimestamp • osVersion • ou • platformId • platformName • pointerSize • productType • productTypeDesc • provisionStatus • reducedFunctionalityMode • serialNumber • servicePackMajor • servicePackMinor • siteName • slowChangingModifiedTimestamp • status • systemManufacturer • systemProductName • tags	• String • String

Cvent

Connects to the Cvent REST API to retrieve event data and count the attendees per event.

Prerequisites

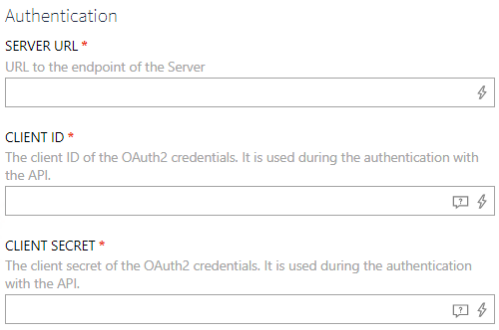
In order to authorize requests to the platform the Cvent REST API uses OAuth2. In order to create an account for usage with the connector the following steps are necessary:

In order to access the Cvent APIs an invitation to an account is necessary. This invitation needs to be sent to an email address by the planner or an administrator of the organization's account.

1. Check the email account for the invitation link.
2. Click on the link to sign up and then sign in and accept the invitation.
3. Create an Application by clicking on **Create Application**. Add a descriptive name for the client (for example RayVentory Data Hub) and select the following data access permissions: 'event/attendees:read' and 'event/events:read'.

The Client Id and the Client Secret created will be used for the setup of the connector in RayVentory Data Hub.

Connector Setup



- The **SERVER URL** of the cvent server that is used.
- The **CLIENT ID** that was used during the setup of the application in cvent.
- The **CLIENT SECRET** that was used during the setup of the application in cvent.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)

Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`

Category	Authentication
Type	String
Default Value	n/a
Example Values	

Create an application according to the quickstart guide to receive the pair of client ID and secret for authentication. The required OAuth scopes are 'event/attendees:read' and 'event/events:read'.

Client Secret

This parameter contains the client secret that is needed as part of the authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Create an application according to the quickstart guide to receive the pair of client ID and secret for authentication. The required OAuth scopes are 'event/attendees:read' and 'event/events:read'.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/oauth2/token`
Description:	Endpoint to obtain an OAuth token
Documentation:	https://developer-portal.cvent.com/documentation#operation/oauth2Token

Endpoint:	`{+serverUrl}/events`
Description:	Endpoint to obtain events
Documentation:	https://developer-portal.cvent.com/documentation#operation/getEvents

Endpoint:	`{+serverUrl}/attendees`
Description:	Endpoint to retrieve the attendees of events
Documentation:	https://developer-portal.cvent.com/documentation#operation/listAttendees

Tables

Table	Column	Type
events	• archiveAfter • attendeeCount • capacity • categoryCode • categoryId • categoryName • closeAfter • code • created • createdBy • currency • defaultLocale • description • end • eventStatus • format • id • launchAfter • note • phone • planningStatus • registrationSecurityLevel • start • status • testMode • timezone • title • virtual	• String • Integer • String • Boolean • String • String • Boolean

CyberArk

Connects to the CyberArk REST API to retrieve user and account data.

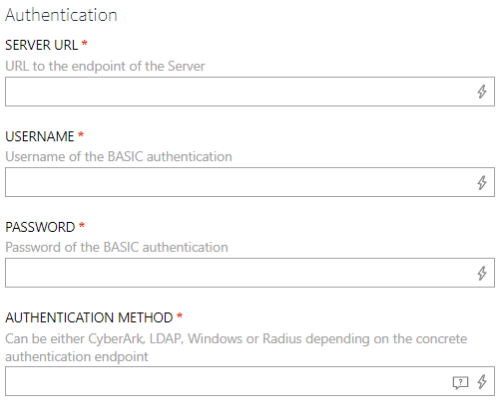
> **Note:**
> This connector is developed for the CyberArk Privilege Cloud but the documentation of the other product APIs of the company suggest that they all use the same endpoint. This has to be elaborated in production systems.

Prerequisites

In order for the connector to be able to identify with the Cyberark REST API it is first necessary to define the authentication method. The following authentication methods are supported:

- **CyberArk Password**: Use this authentication method when using a CyberArk user for the connection. For further authentication using this authentication method, only the Server URL, username, and password of the CyberArk user are needed.
- **LDAP**: To use this authentication method, the Privilege Cloud must be connected to the LDAP server of the organization. More information on how to connect the LDAP directory server to Privilege Cloud can be found here.
- **SAML**: In order to use this authentication method SAML authentication needs to be configured in the Privilege Cloud and in the Identity Provider. Information on how to configure the SAML authentication can be found here.
- **RADIUS**: In order to use this authentication method RADIUS authentication needs to be configured in the Privilege Cloud. Information on how to configure the RADIUS authentication can be found here.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.
- Enter the authentication method depending on the concrete authentication endpoint (either CyberArk, LDAP, Windows, or Radius) into the **AUTHENTICATION METHOD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Authentication Method

This parameter contains the authentication method. It can be either CyberArk, LDAP, Windows, or Radius depending on the concrete authentication endpoint.

Technical Name	`auth_method`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

More information about this can be found at https://docs.cyberark.com/Product-Doc/OnlineHelp/PrivCloud/Latest/en/Content/SDK/CyberArk%20Authentication%20-%20Logon_v10.htm.

Task Parameters

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

The connector resends failed requests before failing the whole connector run. If a lot of connectivity issues which are unrelated to some rate limitation or server overload are experienced, it is advised to increase this parameter as well as parameters Timeout and Maximum Delay.

Extracted Data

Endpoint:	`{+serverUrl}/PasswordVault/api/{authMethod}/Logon`
Description:	Authentication endpoint to obtain a session token.
Documentation:	https://docs.cyberark.com/Product-Doc/OnlineHelp/PrivCloud/Latest/en/Content/SDK/CyberArk%20Authentication%20-%20Logon_v10.htm

Endpoint:	`{+serverUrl}/PasswordVault/api/Users`
Description:	User management endpoint
Documentation:	https://docs.cyberark.com/Product-Doc/OnlineHelp/PrivCloud/Latest/en/Content/SDK/get-users-api.htm

Table

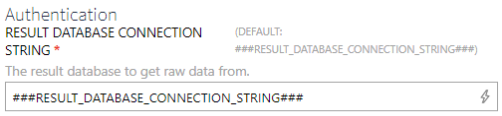
Table	Column	Type
`users`	• `componentUser` • `firstName` • `id` • `lastName` • `location` • `middleName` • `source` • `userType` • `username` • `vaultAuthorization`	• `Boolean` • `String` • `Integer` • `String` • `String` • `String` • `String` • `String` • `String` • `String`

Data Transformation

Data Transformation is a special type of connector and works with the data sets collected by other connectors.

Prerequisites

Connector Setup



- Enter the result database to get the raw data from into the **RESULT DATABASE CONNECTION STRING** field.

Connector Parameters

Configuration

Transformation Script

This parameter can contain a JSON (`.json` file) that defines the transformation steps.

Technical Name	`transformationScript`
Category	Functional
Type	Code
Default Value	n/a
Example Values	

SQL Macros

This parameter can contain SQL macros (`.sql` file) that define reusable functions for the transformation script.

Technical Name	`sqlMacros`
Category	Functional
Type	Code

Default Value	n/a
Example Values	

Authentication

Result Database Connection String

This parameter contains the result database to get the raw data from.

Technical Name	`resultConnectionString`
Category	Authentication
Type	String
Default Value	`###RESULT_DATABASE_CONNECTION_STRING###`
Example Values	

Extracted Data

The extracted data and the data output depends on the data chosen for the data transformation.

Datadog

Connects to the Datadog Rest API and retrieves data related to the cloud hosts the application runs on. Before running the connector, an API key and an app key have to be obtained by registering a client as described here.

Prerequisites

In order to use the connector it is necessary to communicate with the Datadog API. All requests need to be authenticated. Requests that read data require full access which means that they require an API key and an application key. The API and application keys of a Datadog account can be managed here.

1. In order to add an API key to a Datadog account execute the following steps:

Add an API Key

1. In **Organizations** settings click on the **API keys** tab.
2. Click the **New Key** button.
3. Enter a name for the key.
4. Click on **Create API key**.

Add an Application Key

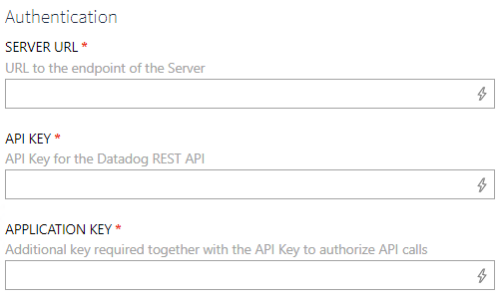
In order to add an Application Key to Datadog execute the following steps:

1. Navigate to **Organization Settings** > **Application Keys**.
2. Click on **New Key**.

	Note: Application Key names cannot be empty!

	Note: The account used needs sufficient rights to create an Application Key!

Connector Setup



- The **SERVER URL** needs to contain the URL to the endpoint of the server. For the Datadog US site this would be https://api.datadoghq.com while for the Datadog EU site https://api.datadoghq.eu should be used.
- Enter the **API KEY** for the account that is used for the connection.
- Enter the **APPLICATION KEY** for the account that is used for the connection.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`n/a`
Example Values	

API Key

This parameter contains the API Key for the Datadog REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`n/a`
Example Values	

Application Key

This parameter contains the additional key that is required together with the API Key in order to authorize API calls.

Technical Name	`application_key`
Category	Authentication
Type	String
Default Value	`n/a`
Example Values	

Task Parameter

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical

Type	Integer, null
Default Value	3600000
Example Values	3600000

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v1/hosts/`
Description:	Host Endpoint of the Datadog REST API
Documentation:	https://docs.datadoghq.com/api/latest/hosts/

Tables

Table	Column	Type
`hosts`	• `aliases` • `apps` • `awsName` • `hostName` • `id` • `isMuted` • `lastReportedTime` • `meta` • `metricIowait` • `metricLoad` • `metricsCpu` • `muteTimout` • `name` • `sources`	• `String` • `String` • `String` • `String` • `Integer` • `Boolean` • `Integer` • `String` • `Number` • `Number` • `Integer` • `String` • `String` • `String`

Table	Column	Type
	• tagsBySource • up	• String • Boolean

DocuSign

Connects to the DocuSign REST API and fetches contract data, users, and optionally envelopes.

Prerequisites

The connector authenticates with DocuSign using JSON Web Token (JWT) Grant authentication.

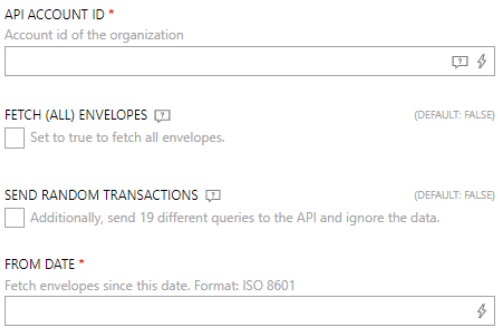
In order to obtain a token using JWT Grant the following prerequisites must be fulfilled:

1. An integration key has been defined.
   - To create an integration key go to the **Apps and Keys** page.
   - Go to **My Apps / Integration Keys**.
   - Select **Add App / Integration Key** and name the key.

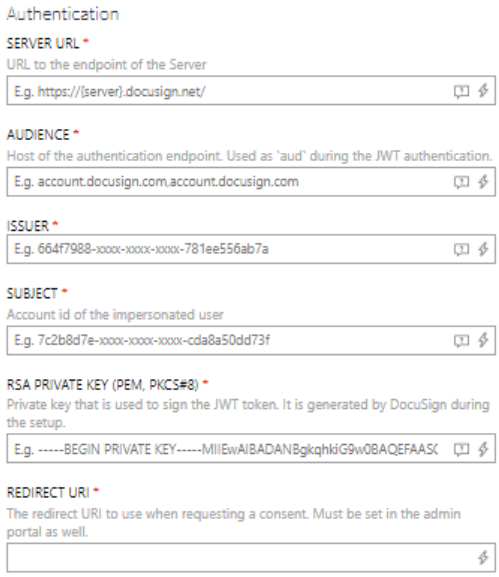
2. A redirect URI for the integration key has been defined.
   - To define a redirect URI go to the **Apps and Keys** page.
   - Go to **My Apps / Integration Keys**.
   - Choose the integration key and select **Actions**.
   - Select **Edit**.
   - Select **Add URI** in the **Additional Settings** section.
   - Enter the new redirect URI. It is possible to use a localhost address.

- An RSA key pair has been created.
  - To add an RSA key pair go to the **Apps and Keys** page.
  - Go to **My Apps / Integration Keys**.
  - Choose the integration key and select **Actions**.
  - Select **Edit**.
  - Select **Add RSA Keypair** in the **Authentication** section.
  - Save both keys, the Public Key and the Private Key, to a secure location (include the `----BEGIN RSA PRIVATE KEY----` and `----END RSA PRIVATE KEY----` lines as part of the text).

Connector Setup



- Enter the Account ID of the organization into the **API ACCOUNT ID** field.
- Enter the date since when the envelopes shall be fetched into the **FROM DATE** field. The entry needs to match the ISO 8601 format.



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the host of the authentication endpoint into the **AUDIENCE** field.
- Enter the issuer created in the **API and Keys** menu into the **ISSUER** field.
- Enter the Account ID of the impersonated user into the **SUBJECT** field.
- Enter the Private Key that is used to sign the JWT token that was generated by DocuSign during the setup into the **RSA PRIVATE KEY (PEM, PKCS#8)** field.
- Enter the redirect URI that is used when requesting a consent into the **REDIRECT URI** field. This must also be set in the admin portal.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Page Skip

This parameter defines if failed pages are skipped before the whole paging fails.

Technical Name	`max_skip`
Category	Functional
Type	Integer
Default Value	`0`
Example Values	`0, 3`

Be aware:
Setting this parameter to something other than zero can lead to inconsistent or incomplete data.

API Account ID

This parameter contains the account ID of the organization.

Technical Name	`api_account_id`
Category	Functional
Type	String
Default Value	n/a
Example Values	

It can be found in the **API and Keys** menu of the organization: **Admin-Dashboard** -> **INTEGRATION** -> **API and Keys**.

Fetch (All) Envelopes

This parameter defines if all envelopes will be fetched or not.

Technical Name	`fetch_envelopes`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

If set to `true`, all envelopes will be fetched. Some might require extended privileges and contain sensitive information.

Send Random Transactions

This parameter defines if additionally 19 different queries to the API will be send and the data will be ignored.

Technical Name	`send_random_transactions`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false, true`

DocuSign requires an application to make 20 different API calls in the test system before being allowed in the productive system. Because the connector does not use 20 requests by default, this flag activates additional requests, which do not produce any data. Once the application is allowed to the productive system, this flag can be deactivated.

From Date

This parameter specifies the date since when envelopes are being fetched. The format used for the date matches the ISO 8601.

Technical Name	`from_date`
Category	Functional
Type	String
Default Value	n/a
Example Values	

To Date

This parameter specifies the date up to which envelopes are being fetched. The format used for the date matches the ISO 8601.

Technical Name	`to_date`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

Set the parameter to `null` for now.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a

Example Values	`https://{server}.docusign.net/`

Use https://demo.docusign.net/ for demo systems.

Audience

This parameter contains the host of the authentication endpoint. It is used as 'aud' during the JWT authentication.

Technical Name	`audience`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`account-d.docusign.com` `account.docusign.com`

For production system `account.docusign.com` is used. For demo systems `account-d.docusign.com` is used.

Issuer

This parameter contains the value that was used for the integration of the connector in the **API and Keys** menu of the organization. It can be created under: **Admin-Dashboard** > **INTEGRATION** > **API and Keys** > **Add App/Integration Key**.

Technical Name	`issuer`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`664f7988-xxxx-xxxx-xxxx-781ee556ab7a`

Subject

This parameter contains the account ID of the impersonated user.

Technical Name	`subject`
Category	Authentication
Type	String
Default Value	n/a

Example Values	7c2b8d7e-xxxx-xxxx-xxxx-cda8a50dd73f

The account ID can be found in the **API and Keys** menu of the organization: **Admin-Dashboard** > **INTEGRATION** > **API and Keys**.

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key that is used to sign the JWT token. It is generated by DocuSign during the setup.

Technical Name	private_key
Category	Authentication
Type	String
Default Value	n/a
Example Values	-----BEGIN PRIVATE KEY----- MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBK owggSmAgEAAoIBAQD8pNLKhayHFAJ1ey5n TUGa9wPzOwjlmCgiLbyzw22wQrhCBT+DMa 24+iSAKHE72lgK5/OQOTbIPFWP ... vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKT V4BgTmqWIyQXx/U4aNjoXBLzyvf1t4 -----END PRIVATE KEY-----

Given a private key, the public key can be generated with Openssl: openssl rsa -in private.pem -outform PEM -pubout -out public.pem

Redirect URI

This parameter contains the redirect URI that is to be used when requesting a consent. It must be set in the admin portal as well.

Technical Name	redirect_uri
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer `null`
Default Value	`1000`
Example Values	`1000`

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
account	• accountIdGuid • accountName • allowTransactionRooms • billingPeriodDaysRemaining • billingPeriodEndDate • billingPeriodEnvelopesAllowed • billingPeriodEnvelopesSent • billingPeriodStartDate • billingProfile • canCancelRenewal • canUpgrade • connectPermission • createdDate • currencyCode • currentPlanId • distributorCode • docuSignLandingUrl • envelopeSendingBlocked • envelopeUnitPrice • externalAccountId • forgottenPasswordQuestionCount • isDowngrade • paymentMethod • planClassification • planEndDate • planName • planStartDate • seatsAllowed • seatsInUse • status21CFRPart11 • suspensionDate • suspensionStatus	• String • String
billing_plan	• canCancelRenewal • canUpgrade • currencyCode • enableSupport	• String • String • String • String

Table	Column	Type
	• includedSeats • incrementalSeats • isDowngrade • otherDiscountPercent • paymentCycle • paymentMethod • perSeatPrice • planClassification • planId • planName • renewalStatus • successor Index • supportIncidentFee • supportPlanFee	• String • String • String • String • String • String • String • String • String • String • String • Integer • String • String
feature_sets	• envelopeFee • featureSetId • fixedFee • is21CFRPart11 • isActive • isEnabled • name • planId • seatFee	• String • String • String • String • String • String • String • String • String
discounts	• beginSeatCount • discountPercent • endSeatCount • planId	• String • String • String • String
add_ons	• active • addOnId • id • name • planId	• String • String • String • String • String
billing_charges	• allowedQuantity • blocked • chargeName • chargeType • chargeUnitOfMeasure • firstEffectiveDate • includedQuantity • incrementalQuantity • lastEffectiveDate • unitPrice • usedQuantity	• String • String • String • String • String • String • String • String • String • String • String
billing_prices	• beginQuantity • billingChargeName	• String • String

Table	Column	Type
	• endQuantity • unitPrice	• String • String
billing_discounts	• beginQuantity • billingChargeName • discount • endQuantity	• String • String • String • String
envelopes	• completedDateTime • createdDateTime • declinedDateTime • deletedDateTime • deliveredDateTime • envelopeId • envelopeUri • status • statusChangeDateTime • statusDateTime	• String • String • String • String • String • String • String • String • String • String
users	• activationAccessCode • countryCode • createdDateTime • email • enableConnectForUser • firstName • groupString • isAdmin • jobTitle • lastLogin • lastName • middleName • permissionProfileId • permissionProfileName • suffixName • title • userId • userName • userProfileLastModifiedDate • userStatus • userType	• String • String

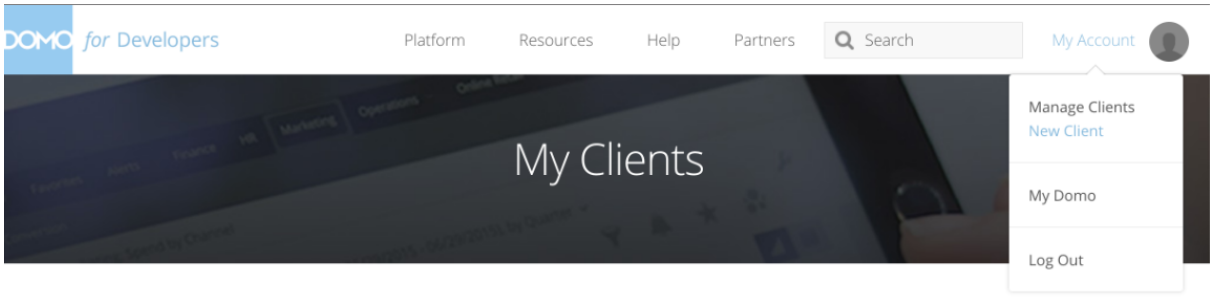
Domo

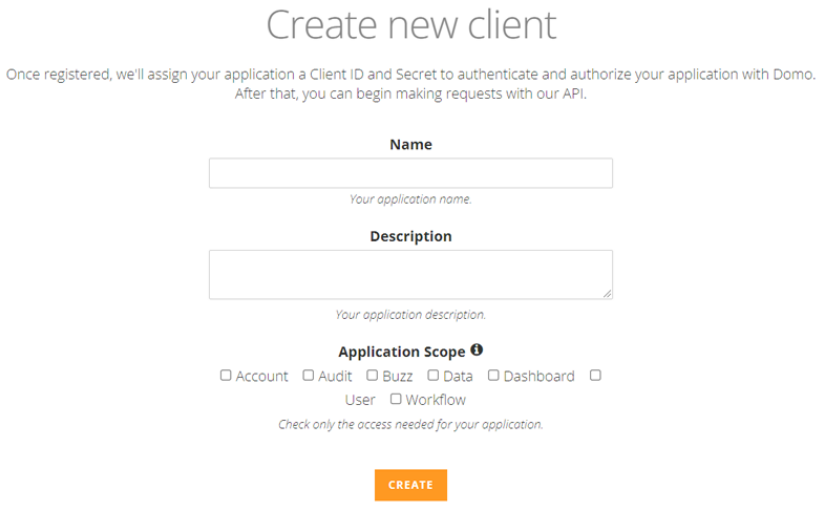
This connector is used to connect to the Domo User API. It collects user data.

Prerequisites

In order to communicate with the Domo API it is necessary to authenticate using OAuth 2.0 authentication. For the authentication a valid Client ID and a valid Client Secret are needed.

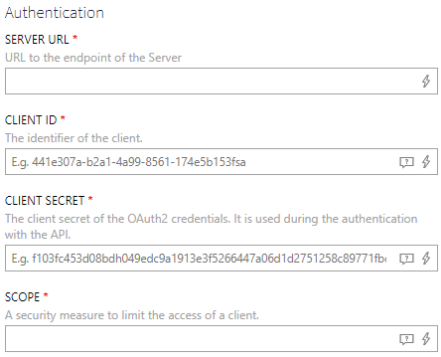
In order to create the Client ID and the Client Secret login to the developer portal.





- Select **New Client** in the **Manage Client** section of the **My Account** dropdown list.
- After filling in a name and description and selecting the scope that is needed.
- Click on the **CREATE** button to generate the associated Client ID and Client Secret.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the identifier of the client into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth2 credentials into the **CLIENT SECRET** field. It is used during the authentication with the API.
- Enter the security scope that is used to limit the access to the client into the **SCOPE** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`

Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the identifier of the client.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`441e307a-b2a1-4a99-8561-174e5b153fsa`

Authentication parameters for the Domo API Documentation is provided here.

Client Secret

This parameter contains the client secret of the Oauth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`f103fc453d08bdh049edc9a1913e3f52` `66447a06d1d2751258c89771fbcc8087`

Authentication parameters for the Domo API Documentation is provided here.

Scope

This parameter is used as a security measure to limit the access of a client.

Technical Name	`scope`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Authentication parameters for the Domo API Documentation is provided here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer

Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/users`
Description:	The user endpoint of the Domo REST API
Documentation:	https://developer.domo.com/docs/users-api-reference/users-2#List%20users

Tables

Table	Column	Type
`users`	• `createdAt` • `email` • `id` • `name` • `phone` • `role` • `roleId` • `title` • `updatedAt`	• `String` • `String` • `Integer` • `String` • `String` • `String` • `Integer` • `String` • `String`

Dot4Cmdb

Connects to the DOT4Cmdb REST API, retrieves CIs and writes the data to a `.csv` file based on the `requiredCiFields` parameter.

Prerequisites

A Dot4 API Key is a key that allows access to Dot4 without authentication via username/ password. A Dot4 API Key can be created in the Dot4 Client.

- Navigate to **Administration** => **Roles and Permissions** > **API Authentication**.
- Use the **Create** button to create a new key.
- Enter a meaningful name for the key.
- Specify the expiration date of the key.
- If this date is exceeded, this key is no longer valid and the access to Dot4 is denied.
- If the field remains empty, the key has no expiration date.
- The API key must have the type Dot4Cmdb.

Connector Setup

- Enter the API Key needed for the authentication into the **API KEY** field.
- Enter the email of the user that will be used into the **USER EMAIL** field.
- Enter the target Tenant into the **TENANT** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)

Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Required Fields

This parameter contains the list of CI fields that will be written to the `.csv` file.

Technical Name	`required_ci_fields`
Category	Functional
Type	Array
Default Value	`{empty}`
Example Values	`"name", "ciTypeId", "macAddresses_COM"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.dot4.de`
Example Values	`https://api.dot4.de`

API Key

This parameter should contain the Dot4 API Key.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

A Dot4 API Key is a key that allows access to Dot4 without authentication via username/ password. A Dot4 API Key can be created in the Dot4 Client.

User Email

This parameter should contain the email for the user login.

Technical Name	`user_email`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Tenant

This parameter should contain the technical name of the client.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/dot4cmdb/cis`
Description:	List CIs.
Documentation:	n/a

Tables

Table	Column	Type
`cis`		

Drift

Connects to the Drift API and fetches users and conversations.

Prerequisites

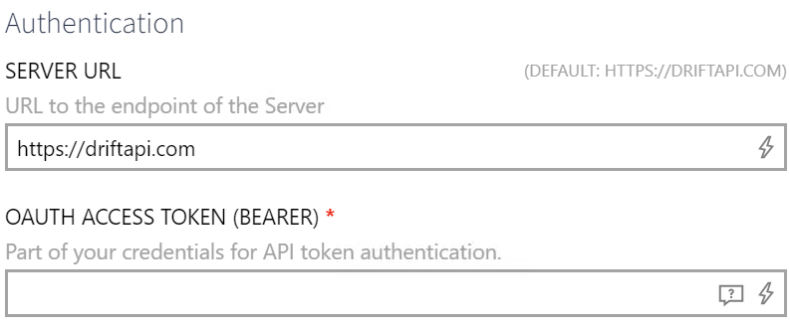
In order to create the OAuth Access Token needed for the authentication, the following steps are necessary.

1. Go to dev.drift.com and click on the **Build Your App** button located in the **Your Apps** section.
2. In the Display Information section enter the name of the app.
3. On the OAuth & Permissions page grant the permissions needed to the collector.

> **Be aware:**
> Access tokens are bound to the scopes given at grant time. If the scopes need to be changed afterward, it will be necessary to create a new token.

4. Install the app to the drift account by clicking the **Install App to Drift** button in the **Publish** section.
5. Copy the OAuth Access Token and save it to a secure location.

Connector Setup



- By default, the **SERVER URL** field is set to `https://driftapi.com`.
- Enter the OAuth Access Token used for the authentication into the **OAUTH ACCESS TOKEN (BEARER)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)

Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://driftapi.com`
Example Values	`https://driftapi.com`

OAuth Access Token (Bearer)

This parameter contains part of the credentials used for the API token authentication.

Technical Name	`oauth_access_token`

Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The process how to generate the OAuth Access Token is described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`50`
Example Values	`50`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/users/list`
Description:	Get users.
Documentation:	https://devdocs.drift.com/docs/listing-users

Endpoint:	`{+serverUrl}/conversations/list`
Description:	Get conversations.
Documentation:	https://devdocs.drift.com/docs/listing-conversations

Tables

Table	Column	Type
users	• alias • availability • bot • createAt • email • id • locale • name • orgId • phone • role • timeZone • updatedAt • verified	• String • String • Boolean • String • String • Integer • String • String • Integer • String • String • String • String • Boolean
conversations	• contactId • createdAt • id • inboxId • relatedPlaybookId • status • updatedAt	• String • String • String • String • String • String • String

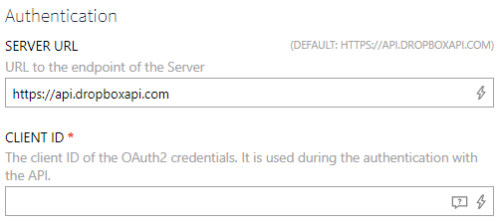
Dropbox

This connector is used to connect to the Dropbox API. It collects user and account data.

Prerequisites

In order to use the connector it is necessary to create an app key (a.k.a. Client ID). In order to get the app key, it is necessary to create an app in the Dropbox App Console.

Connector Setup



- Enter the Client ID of the OAuth2 credentials that is used during the authentication with the API into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.dropboxapi.com`
Example Values	`https://api.dropboxapi.com` `https://api.dropboxapi.com`

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The token that is generated from the APP console and used for authentication. Use the functionality for 'Generated access token' found in the APP console. Unique per APP: `https://www.dropbox.com/developers/apps/info/<APP_KEY>`.

Task Parameters

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/2/team/members/list`
Description:	Get members, first page
Documentation:	n/a

Endpoint:	`{+serverUrl}/2/team/members/list/continue`
Description:	Get members, second and remaining pages
Documentation:	n/a

Tables

Table	Column	Type
`users`	• `accountId` • `displayName` • `email` • `firstName` • `joinedOn` • `lastName` • `membershipType` • `role` • `status` • `teamMemberId`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`

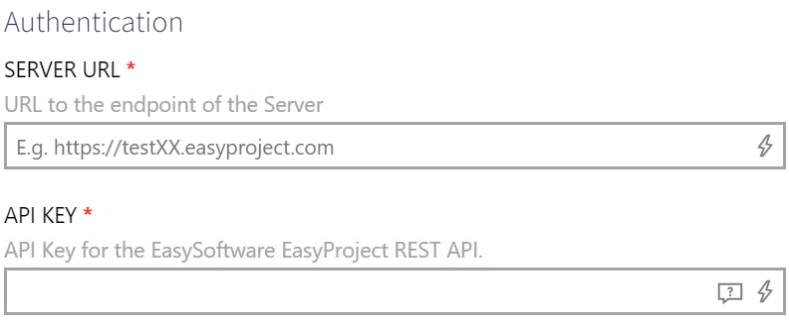
EasySoftware EasyProject

Connects to the EasySoftware EasyProject REST API to retrieve user data.

Prerequisites

The API Key necessary for the authentication can be found in the **user settings** under the **API key** option and is unique for every user.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key used for the authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://testXX.easyproject.com`

API Key

This parameter contains the API Key used for the authentication with the EasySoftware EasyProject REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The API Key can be obtained as described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/users.json`
Description:	Get all users.
Documentation:	https://easyproject.docs.apiary.io/#reference/users/users-collection/list-all-users

Tables

Table	Column	Type
users	• admin • createdOn • easyExternalId • easyLesserAdmin • easySystemFlag • easyUserTypeId • easyUserTypeName • firstname • id • language • lastLoginOn • lastname • login • mail • passwdChangedOn • status • supervisorUserId • updatedOn • utcOffset • workingTimeCalenderDefaultWorkingHours • workingTimeCalenderId • workingTimeCalenderName • workingTimeCalenderTimeFrom • workingTimeCalenderTimeTo	• Boolean • String • String • Boolean • Boolean • Integer • String • String • Integer • String • String • String • String • String • String • Integer • Integer • String • Integer • Number • Integer • String • String • String

ECM Connector

The connector fetches inventory information from a given ECM endpoint management suite. It will collect the installed hardware and software from the devices managed by the given ECM.

Vendor	Microsoft
Name of connector	Endpoint Configuration Manager via WMI
Software version	generic
Connector type	WMI

Prerequisites

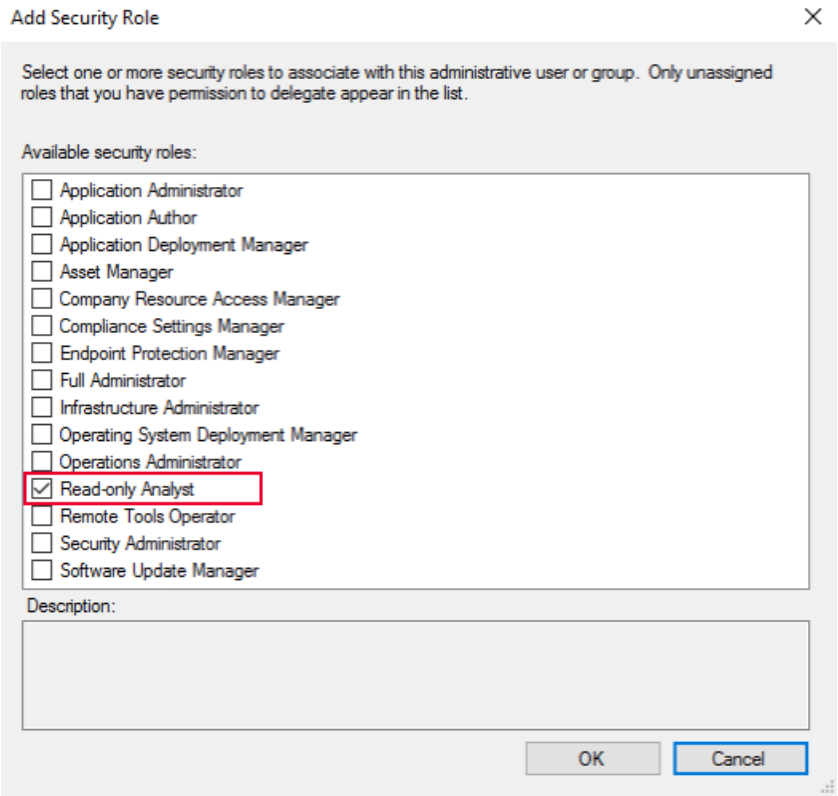
Configuration

The connector uses the Windows Management Instrumentation in order to create a connection to the Configuration Manager Console server of the ECM system. The following parameters are required in order to create the connection:

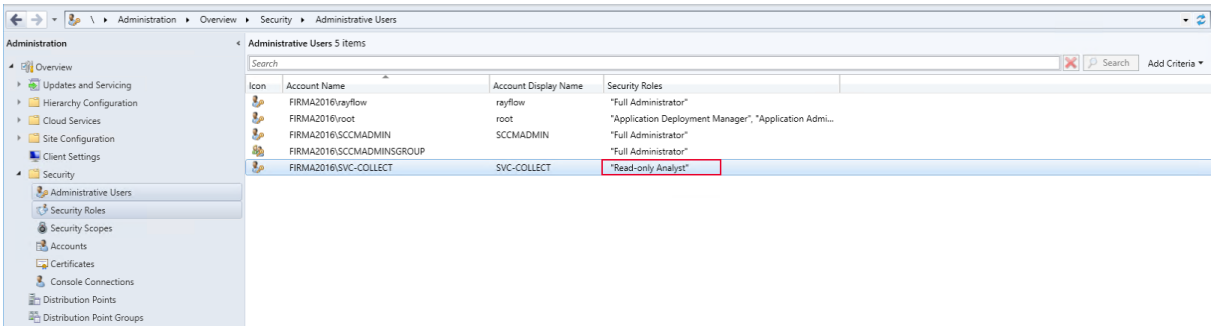
Parameter	Description	Values
API	Option to execute the queries on the target SCCM machine	• SM (System Management) • MMI (Microsoft Management Infrastructure)
Access Type	Access type used to connect to the target server	• DCOM (Distributed Component Object Model) • WSMan (Web Service Management) *[API MMI only!]*
Host	Target hostname	Custom string *[Hostname or FQDN]*
User Name	User used for the connection operation	Custom string
Password	Password for the specified user	Custom security string
Site	SMS site name	Custom string

ECM Configuration

In ECM the user needs to at least be granted the Read-only Analyst role. This role grants the permissions to view all the Configuration Manager objects.



To grant the necessary rights, open the **Properties** of the user and click on the **Add...** button. Then select the **Read-only Analyst** role by checking the checkbox.



Check that the **Security Roles Column** shows the **Read-only Analyst** as role for the user that will be used with the connector.

Specifications

Option 1: Local Administrator

This is the approach with the highest permission level necessary. The user needs to be part of the local administrators group. Local administrators usually have full permissions to WMI.

Option 2: Grant Dedicated Permissions

This is the approach with the least privileges necessary. For granting dedicated permissions to specified service users or groups, the following needs to be configured on the target system:

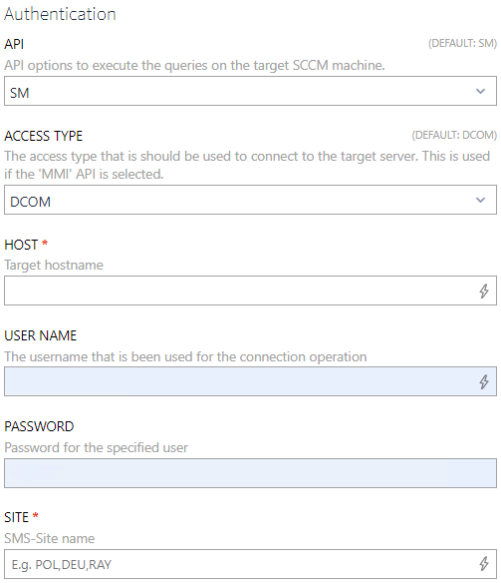
Group Membership
The user or group needs to a member of the following groups:

Performance Monitor Users	S-1-5-32-558
Distributed COM Users	S-1-5-32-562
Remote Management Users	S-1-5-32-580

Dedicated Permissions
The user or group needs the following permissions on the WMI namespace:

Namespace	Permission	Inheritance
`\root`	Enable Remote Enable	No
`\root\sms\site_<SITENAME>`	Enable Execute Methods Remote Enable Read Security	Yes

Connector Setup



- Enter the name of the target host into the **HOST** field.
- If the service account running the service already has sufficient rights, it is not necessary to enter data into the **USER NAME** field and the **PASSWORD** field. If this is not the case enter the name of the user used for authentication into the **USER NAME** field and the password of the user used for authentication into the **PASSWORD** field.
- Enter the SMS-Site name into the **SITE** field.

Connector Parameters

Authentication

API

This parameter defines the API options to execute the queries on the target ECM machine.

Technical Name	`api`
Category	Authentication
Type	Select
Default Value	`SM`
Example Values	`SM, MMI`

Access Type

This parameter defines the access type that should be used to connect to the target server. This is used if the 'MMI' API selected.

Technical Name	`accessType`

Category	Authentication
Type	Select
Default Value	`DCOM`
Example Values	`DCOM, WSMan`

Host

This parameter contains the target hostname.

Technical Name	host
Category	Authentication
Type	String
Default Value	n/a
Example Values	

User Name

This parameter contains username that is being used for the connection operation.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`DOMAIN\\user.name, user.name`

Password

This parameter contains the password for the specified user.

Technical Name	`password`
Category	Authentication
Type	Password

Default Value	n/a
Example Values	

Site

This parameter contains SMS-Site name.

Technical Name	`site`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`POL, DEU, RAY`

Extracted Data

Hardware

Value	Content Description
id	UUID
import_id	Device FQDN
device_key	Device FQDN
device_name	Device Hostname
device_manufacturer	Device Model
serial_number	Device Serial Number
import_operating_system_id	Device Operating System
import_device_type_id	Device Type
import_domain_id	Device Domain
ip_address	Device IP addresses list (IPv4&IPv6)
mac_address	Devices MAC addresses list
fqdn	Device FQDN
inventory_date	Date of last inventory
installation_date	Date of OS installation
cpu_chip	CPU chip count
cpu_core	CPU core count
import_cpu_type_id	CPU model
ram	Memory in MB
storage	Disc space in GB
graphics	Devices graphic cards list
network	Devices network adapters list
bios	BIOS version
resource_id	Internal device ID

Software

Value	Content Description
id	UUID
resource_id	Internal device ID
publisher	Software publisher
product	Software product name
product_version	Software product version
import_device_id	Device FQDN
installation_date	Software installation date

Tables

Target WMI Tables:

- SMS_G_System_Computer_System
- SMS_G_System_Workstation_Status
- SMS_G_System_Operating_System
- SMS_G_System_Processor
- SMS_G_System_Enclosure
- SMS_G_System_PC_Bios
- SMS_R_System
- SMS_G_System_Video_Controller
- SMS_G_System_Network_Adapter
- SMS_G_System_Add_Remove_Programs
- SMS_G_System_Add_Remove_Programs_64
- SMS_G_System_Logical_Disk

Extracted Tables:

- SCCMSQLCollections
- SCCMSQLDeviceRelations
- SCCMSQLDevices
- SCCMSQLSoftwareARP
- SCCMSQLSoftwareFile
- SCCMSQLSoftwareFileMetering
- SCCMSQLSoftwareOS
- SCCMSQLSoftwareTag

Envoy

Connects to the Envoy REST API to retrieve the locations which are used to calculate the license metric for the Visitors/Protect/Desks subscription.

Prerequisites

In order to be able to make a call to the Envoy API it is necessary to create an API user account.

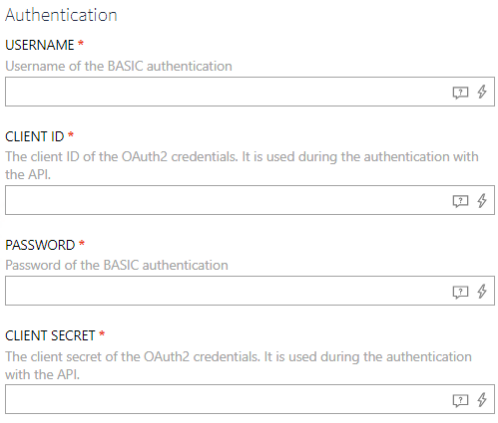
Create an API User

1. Manually create an employee in the the employee directory.
2. Assign the Global Admin role to the user.
3. Disable the setting **Show employee as a host on the Visitors Kiosk**.

Get a Client ID and Secret

1. Go to the Dashboard and click **Integrations > Integration Builder**.
2. Click on **Connect Account**.
3. Click on **Create New**.
4. Provide a name for the integration (for example: RayVentory Data Hub).
5. Under **API Scopes** add the scope `locations.read`.
6. Check the **Is the integration ready to be displayed**?
7. Click on **Save Integration**.
8. Find the integration in the **All integrations** tab within the Integration Builder and select **Configure**.
9. Copy the Client ID and the Client Secret from the Envoy API Credentials section.

Connector Setup



- Enter the name of the user that has been created for the creation of the API credentials into the **USERNAME** field.
- Enter the Client ID from the Envoy API Credentials into the **CLIENT ID** field.
- Enter the password of the user that has been created for the creation of the API credentials into the **PASSWORD** field.
- Enter the Client Secret from the Envoy API Credentials into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

To connect to the API, it is necessary to create an app integration as described in the documentation. To use the password OAuth flow, a client ID, client secret, username, and password are required.

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

To connect to the API, it is necessary to create an app integration as described in the documentation. To use the password OAuth flow, a client ID, client secret, username, and password are required.

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

To connect to the API, it is necessary to create an app integration as described in the documentation. To use the password OAuth flow, a client ID, client secret, username, and password are required.

Client Secret

This parameter contains the client secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

To connect to the API, it is necessary to create an app integration as described in the documentation. To use the password OAuth flow, a client ID, client secret, username, and password are required.

Task Parameters

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://app.envoy.com/a/visitors/api/v3/locations
Description:	Locations endpoint of the Envoy REST API
Documentation:	https://developers.envoy.com/hub/reference/locations

Endpoint:	https://app.envoy.com/a/auth/v0/token
Description:	Authentication endpoint of the Envoy REST API
Documentation:	https://developers.envoy.com/hub/reference/access-tokens

Tables

Table	Column	Type
location	• address • addressLineOne • addressLineTwo • autoSignOutAtMidnight • blacklistFiltersCsvUploadStatus • capacityLimit • city • companyNameOverride • deliveriesOnboardingComplete • disabled • id • type	• String • String • String • Boolean • String • Integer • String • String • Boolean • Boolean • String • String

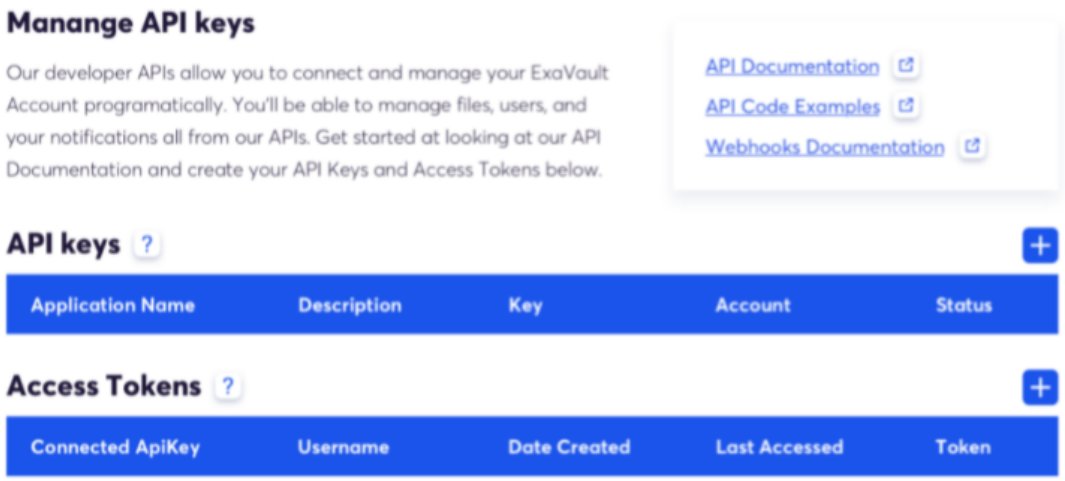
ExaVault

Connects to the ExaVault REST API to retrieve user and account data.

Prerequisites

In order to use the connector it is necessary to create API credentials for the Exavault API.

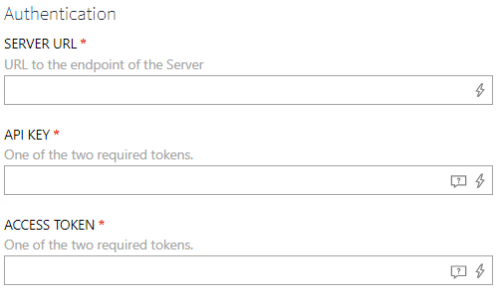
Navigate to the **Settings** > **Developer** section and click the **+** icon located next to API Keys.



Follow the on-screen instructions to setup the API Key and the Access Token. Once the setup is complete a pop-up with the alphanumeric key and token are shown.

	Be aware: Save the credentials securely because it will not be possible to access the token again. It the token is lost, it is necessary to create a new one!

Connector Setup



- Enter the URL of the ExaVault server into the **SERVER URL** field.
- Enter the Api Key that has been created in ExaVault into the **API KEY** field.
- Enter the Access Token that has been created in ExaVault into the **ACCESS TOKEN** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	n/a
Example Values	

API Key

This parameter contains one of the two required tokens.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

To use the API it is necessary that an admin user creates both an API key and an access token as described here.

Access Token

This parameter contains one of the two required tokens.

Technical Name	`access_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

To use the API it is necessary that an admin user creates both an API key and an access token as described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical

Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v2/users`
Description:	User endpoint of the ExaVault REST API.
Documentation:	https://www.exavault.com/developer/api-docs/v2#tag/Users

Endpoint:	`{+serverUrl}/api/v2/account`
Description:	Account endpoint of the ExaVault REST API, retrieving information about the account (tenancy) including the disk limit, number of users and transactions.
Documentation:	https://www.exavault.com/developer/api-docs/v2#tag/Account

Tables

Table	Column	Type
users	• accessTimestamp • accountName • changePassword • created • delete • deleteFormData • download • email • expiration • id • list • modified • modify • nickname • notification	• String • String • Boolean • String • Boolean • Boolean • Boolean • String • String • Integer • Boolean • String • Boolean • String • Boolean

Table	Column	Type
	• share • status • type • upload • username • viewFormData	• Boolean • Integer • String • Boolean • String • Boolean
account	• accountName • accountOnboarding • bandwidthLimit • bandwidthUsed • branding • clientId • complexPasswords • created • customDomain • customSignature • diskLimit • diskUsed • external Domains • id • maxUsers • modified • noticeEnabled • noticeThreshold • secureOnly • showReferralLinks • status • transactionsLimit • transactionsNoticeEnabled • transactionsNoticeThreshold • type • userCount • welcomeEmailContent • welcomeEmailSubject	• String • Boolean • Integer • Integer • Boolean • Integer • Boolean • String • Boolean • String • Integer • Integer • String • Integer • Integer • String • Boolean • Integer • Boolean • Boolean • Integer • Integer • Boolean • Integer • String • Integer • String • String

Falcon.io

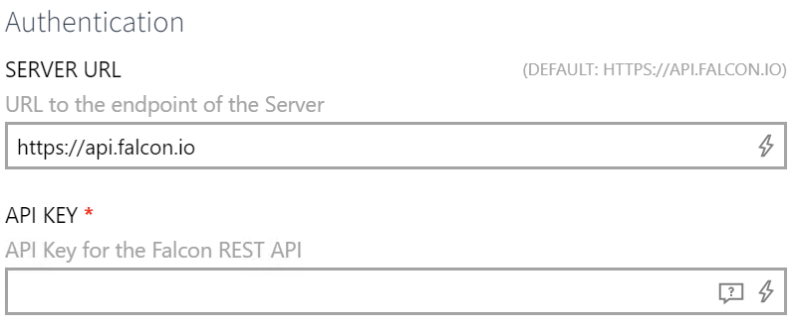
Connects to the Falcon.io REST API. It fetches organization metrics, teams, and users per team.

Prerequisites

In order to use the connector an API Key is needed. To generate the API Key execute the following steps:

- When logged in to Falcon.io, click on the profile image.
- Under Organization, select **Integrations & API**.
- Select **API Keys**.
- Click on the **+ NEW API KEY** button.

Connector Setup



- Enter the API Key into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.falcon.io`
Example Values	`https://api.falcon.io`

API Key

This parameter should contain the API Key for the Falcon REST API

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The API Key can be obtained as described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`50`
Example Values	`50`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/listen/packages/org`
Description:	List organization metrics.
Documentation:	https://falconio.docs.apiary.io/#reference/organization-api/get-organization-metrics/get-organization-metrics

Endpoint:	`{+serverUrl}/teams`
Description:	List teams.
Documentation:	https://falconio.docs.apiary.io/#reference/team-api/get-teams/get-teams

Endpoint:	`{+serverUrl}/teams/{teamId}/users`
Description:	List team users.
Documentation:	https://falconio.docs.apiary.io/#reference/team-api/get-team-users/get-team-users

Tables

Table	Column	Type
organization_metrics	• currentProjects • currentQueries • historicalDays • maxMentions • packageName • retentionDays • spentMentions	• Integer • Integer • Integer • Integer • String • Integer • Integer
teams	• id • name • orgId	• String • String • Integer
team_users	• accessContentPool • admin • adminWithoutTeam • createDate • deletedAt • email • firstName • lastLoginDate • lastName • loginCount • modifiedDate • name • orgId • profilePicture • superUser • teamId • useDateFormat • userId • userType	• Boolean • Boolean • Boolean • String • String • String • String • String • String • Integer • String • String • Integer • String • Boolean • String • Boolean • String • Integer

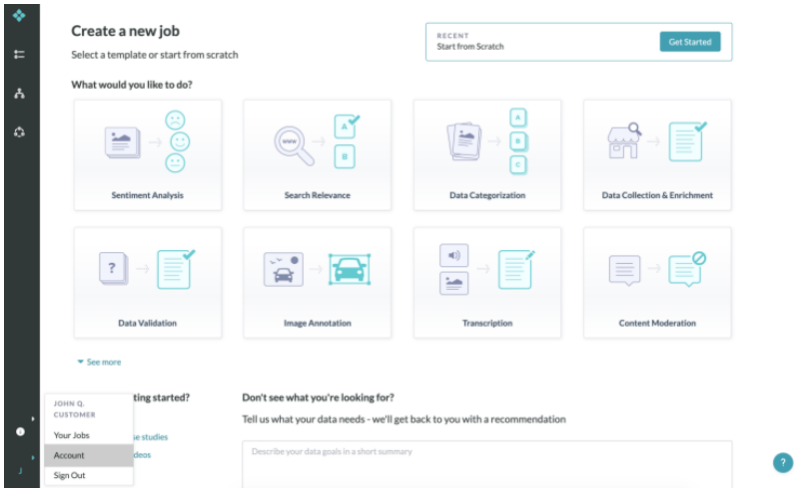
Figure Eight

This connector is used to connect to the Figure Eight API. It collects account and job data.

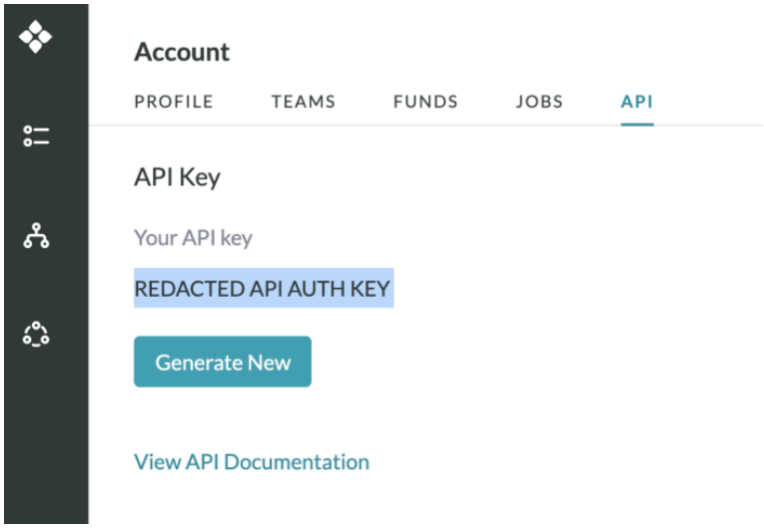
Prerequisites

In order to use the connector it is necessary to supply the Appen API key in order to access the API.

1. Click the Account button located in the bottom corner of the Global Naviagation bar on the left side of any page.

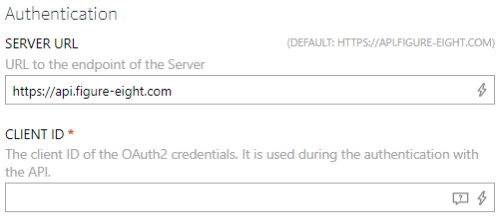


2. Click on the **API** tab and click on on the **Generate New** button.



3. Follow the on-screen instructions to setup the API credentials for the connector.

Connector Setup



- By default, the **SERVER URL** field already contains the URL to the Figure Eight server.
- Enter the API credentials created for the connector into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.figure-eight.com`
Example Values	`https://api.figure-eight.com`

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The API key of the FigureEight account can be found at: https://make.figure-eight.com/account/api.

Task Parameters

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer

	`null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the the number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

The connector resents failed requests before failing the whole connector run. If experiencing a lot of connectivity issues which are unrelated to some rate limitation or server overload, it is advised to increase this parameter as well as the parameters Timeout and Maximum Delay.

Extracted Data

Endpoint:	`{+serverUrl}/v1/account.json`
Description:	Account endpoint of the FigureEight REST API
Documentation:	https://developer.appen.com/#tag/Account-Info

Endpoint:	`{+serverUrl}/v1/jobs.json`
Description:	Job endpoint of the FigureEight REST API
Documentation:	https://developer.appen.com/#section/Resources/Jobs

Tables

Table	Column	Type
account	• createdAt • email • firstName • id • lastName • status	• String • String • String • String • String • String
jobs	• id • judgementsPerUnit • mailTo • pagesPerAssignment • paymentCents • projectNumber • supportEmail • title • unitsPerAssignment	• String • String • String • String • String • String • String • String • String

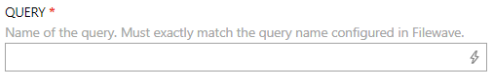
Filewave

Connects to the official Filewave REST API and gets the result of a preconfigured query. The query must have been configured beforehand in Filewave with the query builder. The output data fully depends on the query.

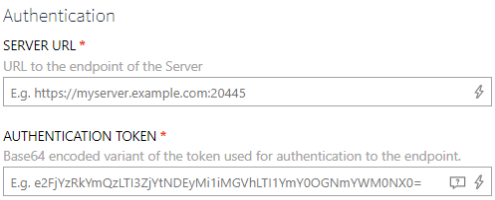
Prerequisites

In order to access the RESTful API a token is needed. The token can be found when selecting the user that is about to be used and then selecting the **Application tokens** tab. Select the token from the token table and copy the **Token (based64)** including the "**=**" at the end of the token.

Connector Setup



- Enter the name of the query into the **QUERY** field in the **Configuration** tab. The name entered must exactly match the query name configured in Filewave.



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Base64 encoded variant of the token used for the authentication to the endpoint into the **AUTHENTICATION TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Query

This parameter contains the name of the query. It must exactly match the query name that has been configured in Filewave.

Technical Name	`query`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a

Example Values	`https://myserver.example.com:20445`

Authentication Token

This parameter contains the Base64 encoded variant of the token used for the authentication to the endpoint.

Technical Name	`token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`e2FjYzRkYmQzLTI3ZjYtNDEyMi1iMGVhLTI1YmY0OGNmYWM0NX0=`

How to get the token is described in the official documentation. It varies between different versions of Filewave. Make sure to use the base64 encoded variant and to grant correct privileges needed for the query.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://{+serverUrl}/inv/api/v1/query/
Description:	Lists all predefined queries. Resolve the query name to a valid query id.
Documentation:	https://kb.filewave.com/display/KB/RESTful+API

Endpoint:	https://{+serverUrl}/inv/api/v1/query_results/
Description:	Evaluates a given query and returns the desired data.
Documentation:	https://kb.filewave.com/display/KB/RESTful+API

Tables

Table	Column	Type
query_result		

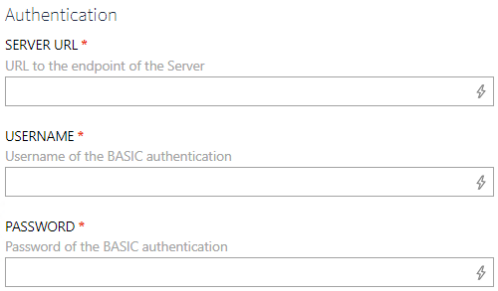
Foreman

Connects to the Foreman REST API v2 and fetches hosts, users, and media date.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a minimum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/hosts`

Description:	Fetch hosts
Documentation:	https://apidocs.theforeman.org/foreman/latest/apidoc/v2/hosts.html

Endpoint:	`{+serverUrl}/api/users`
Description:	Fetch users
Documentation:	https://apidocs.theforeman.org/foreman/latest/apidoc/v2/users.html

Endpoint:	`{+serverUrl}/api/media`
Description:	Fetch media
Documentation:	https://apidocs.theforeman.org/foreman/latest/apidoc/v2/index.html

Tables

Table	Column	Type
hosts	• architectureId • architectureName • build • certname • comment • computeProfileId • computeProfileName • computeResourceId • computeResourceName • createdAt • disk • domainId • domainName • enabled • environmentId • environementName • globalStatus • globalStatusLabel • hostgroupId • hostgroupName • hostgroupTitle • id • imageFile • imageId • imageName • installedAt • ip • ip6 • lastCompile • lastReport • locationId • locationName • mac	• String • String

Table	Column	Type
	• managed • mediumId • mediumName • modelId • modelName • name • operatingsystemName • organizationId • organizationName • ownerId • ownerName • ownerType • provisionMethod • ptableId • ptableName • puppetCaProxy • puppetCaProxyId • puppetCaProxyName • puppetProxy • puppetProxyId • puppetProxyName • puppetStatus • pxeLoader • realmId • spIp • spMac • spName • spSubnetId • subnet6Id • subnet6Name • subnetId • subnetName • updatedAt • uptimeSeconds • useImage • uuid	• String • String
users	• admin • authSourceId • autheSourceName • createdAt • defaultLocation • defaultOrganization • description • disabled • effectiveAdmin • firstname • id • lastLoginOn	• Boolean • Integer • String • String • String • String • String • Boolean • Boolean • String • Integer • String

Table	Column	Type
	• lastname • locale • login • mail • timezone • updatedAt • userGroups	• String • String • String • String • String • String • String
media	• createdAt • id • name • osFamily • path • updatedAt	• String • Integer • String • String • String • String

Freshdesk

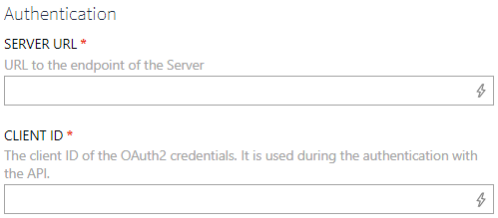
This connector is used to connect to the Freshdesk Rest API. It collects contacts and tickets.

Prerequisites

To authenticate with the Freshdesk REST API an API key is needed. The API key can be found here:

1. Log in to the **Support Portal**.
2. Click on the **Profile** picture on the top right corner of the portal.
3. Go to the **Profile settings** page.
4. The API key is available below the **change password** section on the right.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the client ID used for the OAuth2 credentials that is used during the authentication with the API into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameter

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/api/v2/tickets
Description:	Ticket endpoint of the Freshdesk REST API
Documentation:	https://developer.freshdesk.com/api/#tickets

Endpoint:	{+serverUrl}/api/v2/contacts
Description:	Contact endpoint of the Freshdesk REST API
Documentation:	n/a

Tables

Table	Column	Type
tickets	• associatedTicketsCount • associationType • companyId • createdAt • dueBy • emailConfigId • frDueBy • frEscalated • groupId • id • isEscalated • priority • productId • requesterId • responderId • source • spam • status • subject • toEmails • type • updateAt	• String • String
contacts	• active • address • companyId • createdAt • description • email • facebookId • id • jobTitle • language • mobile • name • phone • timeZone • twitterId • uniqueExternalId • updatedAt	• String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String

G2

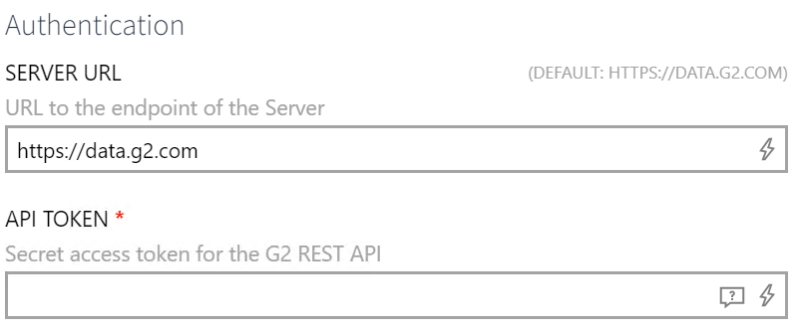
Connects to the G2 REST API to retrieve user, product, and vendor data.

Prerequisites

In order to use the connector, it is necessary to create an API Token. An API Token can be created in the API Tokens tab within MyG2.

It is also possible to directly use the following URL: https://www.g2.com/auth/linkedin?return_to=%2Fstatic%2Fintegrations.

Connector Setup



- Enter the API Key into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://data.g2.com`
Example Values	`https://data.g2.com`

API Key

This parameter should contain the secret access token for the G2 REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The generation of an Access Token is described in the official documentation.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v1/users`
Description:	Get all G2 users.
Documentation:	https://data.g2.com/api/docs#users-list

Endpoint:	`{+serverUrl}/api/v1/products`
Description:	Get all G2 products.
Documentation:	https://data.g2.com/api/docs#products-list

Endpoint:	`{+serverUrl}/api/v1/vendors`
Description:	Get all G2 vendors (sellers).
Documentation:	https://data.g2.com/api/docs#vendors-list

Tables

Table	Column	Type
users	• company • companySize • createdAt • firstName • headline • id • industry • lastName • type • updatedAt	• String • String • String • String • String • String • String • String • String • String
products	• avgRating • createdAt • description • detailDescription • domain • id • name • productType • reviewCount • shortName • slug • starRating • type • updatedAt	• String • String • String • String • String • String • String • String • Integer • String • String • Number • String • String
vendors	• companyWebsite • description • id • name • publicProductsCount • slug • type • updatedAt	• String • String • String • String • Integer • String • String • String

Gainsight PX

Connects to the Gainsight PX REST API to retrieve user data.

Prerequisites

In order to create the API Key that is needed to connect to the Gainsight PX REST Api execute the following steps.

1. Click on the **New API Key** button.
2. Enter a descriptive name, a description, and set the permissions that are required.
3. Click on the **Generate** button. The API key will now be shown.
4. Save the API key to a secure location. If the key is lost, it will not be possible to retrieve it and the key will not be shown in Gainsight PX again.

Connector Setup

- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key used for the authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

API Key

This parameter contains the API Key used for the authentication with the Gainsight PX REST API. The generation of the key is described in the official documentation.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/users`
Description:	List all users.
Documentation:	https://gainsightpx.docs.apiary.io/reference/users

Tables

Table	Column	Type
users	• accountId • aptrinsicId • createDate • email • firstName • firstVisitDate • gender • globalUnsubscribe • id • identifyId • lastModifiedDate • lastName • lastSeenDate • lastVistedUserAgentData • numberOfVisists • phone • propertyKeys • role • score • sfdcContactId • signUpDate • subscriptionId • title • type	• String • String • Integer • String • String • Integer • String • Boolean • String • String • Integer • String • Integer • String • Integer • String • String • String • Integer • String • Integer • String • String • String

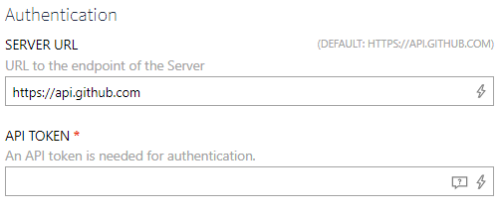
GitHub

Connects to the GitHub REST API. It retrieves organizations, actions billing for organization, members of organization, users.

Prerequisites

1. In order to create a token for GitHub click on the profile photo in the upper-right corner and then click on **Settings**.
2. Click on **Developer settings** located in the left sidebar.
3. Click on **Personal access tokens** located in the left sidebar.
4. Click on the **Generate new token** button.
5. Give the token a descriptive name (for example: RayVentory Data Hub).
6. Select the scopes and permissions granted for this token.
7. Click the **Generate token** button in order to create the token.

Connector Setup



- Enter the API Token that is needed for the authentication into the **API TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Enterprise Name

This parameter contains the name of the enterprise given by GitHub.

Technical Name	`enterprise_name`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

Specify for a connection to enterprise accounts. Leave empty or null for normal accounts.

- GitHub Enterprise administration

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`https://api.github.com`
Example Values	`https://api.github.com`

API Token

This parameter contains the API token that is needed for the authentication.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The authorization process is based on an API Token:

- Authorization with Github
- Creating a token

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

	Be aware: Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer, null
Default Value	`3600000`

Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/user/orgs`
Description:	Gets the list of the organisations for the authenticated user. Requires the 'read:org' scope or at least the 'user' scope.
Documentation:	https://docs.github.com/en/rest/reference/orgs#list-organizations-for-the-authenticated-user

Endpoint:	`{+serverUrl}/orgs/{org}`
Description:	Gets the details of the organisation. To see many of the organization response values, it needs to be authenticated organization onwer with the 'admin:org' scope.
Documentation:	https://docs.github.com/en/rest/reference/orgs#get-an-organization

Endpoint:	`{+serverUrl}/orgs/{org}/settings/billing/actions`
Description:	Gets the summary of the free and paid GitHub Actions minutes used. Paid minute only apply to workflows in private repositories that use GitHub-hosted runners. Minutes used is listed for each GitHub-hosted runner operating system with 'admin:org' scope.
Documentation:	https://docs.github.com/en/rest/reference/billing#get-github-actions-billing-for-an-organization

Endpoint:	`{+serverUrl}/orgs/{org}/settings/billing/packages`
Description:	Gets the free and paid storage used for GitHub Packages in gigabytes. Paid minutes only apply to packages stored for private repositories. Access tokens must have the repo or the 'admin:org' scope.
Documentation:	https://docs.github.com/en/rest/reference/billing#get-github-packages-billing-for-an-organization

Endpoint:	`{+serverUrl}/orgs/{org}/members`
Description:	Get members of specific organization. If the authenticated user is also a member of this organization then both concealed and public members will be returned, otherwise only public members will be returned.
Documentation:	https://docs.github.com/en/rest/reference/orgs#list-organization-members

Endpoint:	`{+serverUrl}/users/{username}`
Description:	Get specific user with all user details.
Documentation:	https://docs.github.com/en/rest/reference/users#get-a-user

Endpoint:	`{+serverUrl}/enterprises/{enterprise}/settings/billing/actions`
Description:	Gets the summary of the free and paid GitHub Actions minutes used for an Enterprise. The authenticated user must be an enterprise admin.
Documentation:	https://docs.github.com/rest/reference/enterprise-admin#get-github-actions-billing-for-an-enterprise

Endpoint:	`{+serverUrl}/enterprises/{enterprise}/settings/billing/packages`
Description:	Gets the free and paid storage used for GitHub Packages in gigabytes for an Enterprise. The authenticated user must be an enterprise admin.
Documentation:	https://docs.github.com/rest/reference/enterprise-admin#get-github-packages-billing-for-an-enterprise

Endpoint:	`{+serverUrl}/enterprises/{enterprise}/settings/billing/shared-storage`
Description:	Gets the estimated paid and estimated total storage used for GitHub Actions and Github Packages for an enterprise. Paid minutes only apply to packages stored for private repositories. The authenticated user must be an enterprise admin.
Documentation:	https://docs.github.com/rest/reference/enterprise-admin#get-github-packages-billing-for-an-enterprise

Tables

Table	Column	Type
organisations	• billingEmail • collaborators • createdAt • defaultRepositoryPermission • description • diskUsage • hasOrganizationProjects • hasRepositoryProjects • htmlUrl • id • includedGigabytesBandwidth • includedMinutes • isVerified • login • membersUrl • minutesUsedBreakdownMacos • minutesUsedBreakdownUbuntu • minutesUsedBreakdownWindows • nodeId • planFilledSeats • planName • planPrivateRepos • planSeats • planSpace • publicMembersUrl • totalGigabytesBandwidthUsed • totalMinutesUsed • totalPaidGigabytesBandwidthUsed • totalPaidMinutesUsed • type • updatedAt • url	• String • String • String • String • String • String • Boolean • Boolean • String • Integer • Integer • Integer • Boolean • String • String • Integer • Integer • Integer • String • Integer • String • Integer • Integer • Integer • String • Integer • Integer • Integer • Integer • String • String • String
users	• blog • company • email • htmlUrl • id • location • login • name • nodeId • orgName • siteAdmin • type • url	• String • String • String • String • Integer • String • String • String • String • String • Boolean • String • String
enterprise_billing	• daysLeftInBillingCycle	• Integer

Table	Column	Type
	• estimatedPaidStorageForMonth • estimatedStorageForMonth • includedGigabytesBandwidth • includedMinutes • minutesUsedBreakdownMacos • minutesUsedBreakdownUbuntu • minutesUsedBreakdown Windows • totalGigabytesBandwidthUsed • totalMinutesUsed • totalPaidGigabytesBandwidthUsed • totalPaidMinutesUsed	• Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer

GitLab.com

Connects to the GitLab REST API (V4) to retrieve user data. This connector is intended to be used with the SaaS version of GitLab, a dedicated instance requires a different mechanism to retrieve the users. To use the connector, three steps of preparation within the company GitLab account are necessary:

1. Create an API Key (aka access token) with `read_user` and `read_api` scopes.
2. If not done during account creation, create a group which serves as your company's top level group holding all associated users.
3. Get the ID of this group as it is required as the connector parameter **topLevelGroupId**.

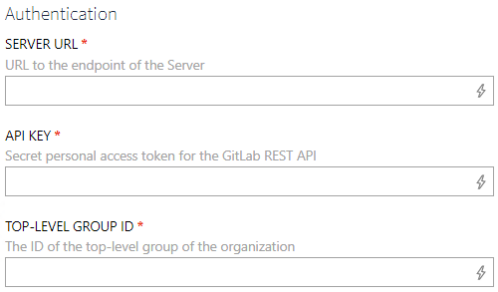
Prerequisites

To use the connector an API Key (aka access token) with `read_user` and `read_api` scopes is needed. It is possible to create as many personal access tokens as needed. To create a token execute the following steps.

1. Select the avatar in the top-right corner.
2. Select the **Edit profile** option.
3. Select the **Access Tokens** option located on the left sidebar.
4. Enter a name for the token (it is also possible to enter an expiry date for the token).
5. Select the desired scopes (`read_user` and `read_api` are the scopes that are required by the connector).
6. Select the **Create personal access token** option.

> **Be aware:**
> Save the personal access token to a secure location since it will not be possible to access the token again. It the token is lost, it is necessary to create a new one!

Connector Setup



- Enter the URL to the endpoint of the Server into the **SERVER URL** field.
- Enter the secret personal access token for the GitLab REST API into the **API KEY** field.
- Enter the ID of the top-level group of the organization into the **TOP-LEVEL GROUP ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	n/a
Example Values	

API Key

This parameter contains the secret personal access token for the GitLab REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Top-Level Group ID

This parameter contains ID of the top-level group of the organization.

Technical Name	`top_level_group_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer

a request will take. On the other hand, a high page size will decrease the total number necessary requests.

> **Be aware:**
> Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`inital_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v4/groups/{topLevelGroupId}/members`

Description:	Get all members associated with the group of the given ID
Documentation:	https://docs.gitlab.com/ee/api/members.html

Tables

Table	Column	Type
users	• accessLevel • createAt • expiresAt • id • name • state • username	• String • String • String • Integer • String • String • String

Google Cloud BigQuery

Connect to the Google Cloud BigQuery API and fetches table data. The connector uses the Google Java SDK. The connector requires the `'bigquery.jobs.create'` permission or the `'BigQuery Job User'` role.

Prerequisites

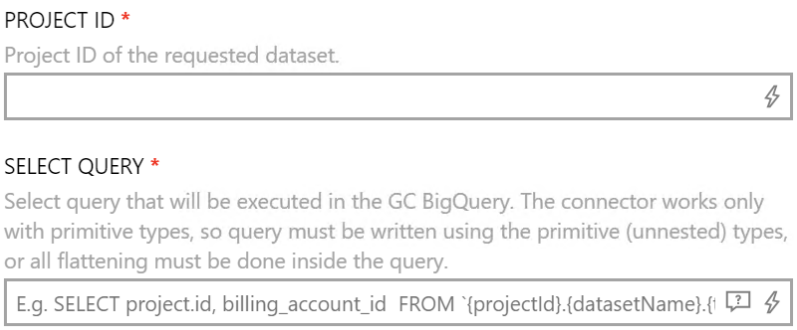
In order to use the connector it is necessary to create a service account in order to receive a JSON key file.

A service account and the service account key can be created by executing the following steps:

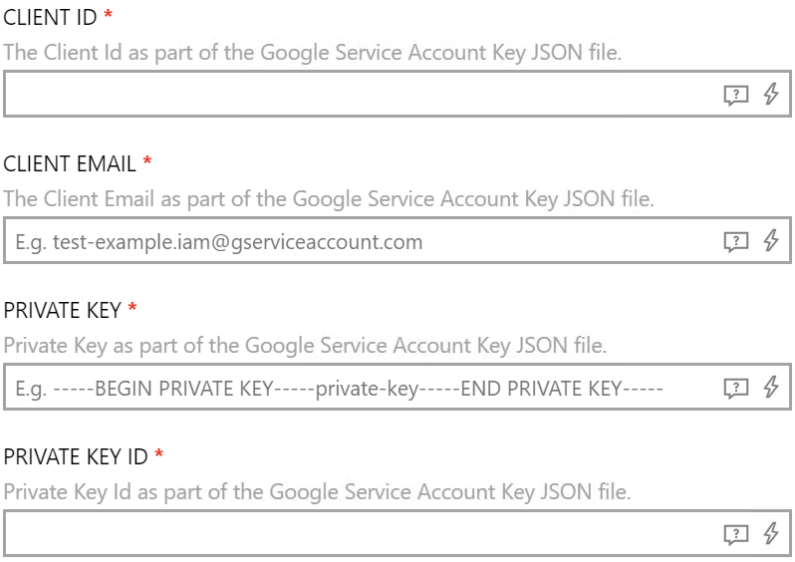
- Go to the **Create service account** page.
- Select the target project.
- Enter a descriptive name into the **Service account name** field and enter a description into the **Service account description** field.
- Click on the **Create and continue** button.
- Select a role with the necessary permissions from the **Select a role** list under **Project** > **Owner** to grant the necessary rights to the service account that is used.
  It is possible to assign multiple roles by clicking on the **+ Add another role** button.
- Click on the **Continue** button.
- Click on the **Done** button to finalize the creation of the service account.
- Click on the email address of the newly created service account.
- Click on **Keys**.
- Click **Add key** and then click on the **Create new key** button.
- Click on the **Create** button to create and download the JSON key file.
- Click on the **Close** button.

The newly created JSON key file contains all the information that is needed to setup the connector.

Connector Setup



- Enter the Project ID of the requested dataset into the **PROJECT ID** field.
- Enter the "SELECT" query that will be executed into the **SELECT QUERY** field.



- Enter the Client ID that is used as part of the Google Service Account Key JSON file into the **CLIENT ID** field.
- Enter the Client Email that is used as part of the Google Service Account Key JSON file into the **CLIENT EMAIL** field.
- Enter the Private Key that is used as part of the Google Service Account Key JSON file into the **PRIVATE KEY** field.
- Enter the Private Key ID that is part of the Google Service Account Key JSON file into the **PRIVATE KEY ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211.

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Project ID

This parameter contains the Project ID of the requested dataset.

Technical Name	`project_id`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Select Query

Select the query that will be executed in the GC BigQuery. The connector works only with primitive types, so the query must be written using the primitive (unnested) types, or all flattening must be done inside the query.

Technical Name	`required_ci_fields`
Category	Functional
Type	Array `null`
Default Value	`null`

Example Values	`SELECT project.id, billing_account_id FROM `{projectId}.{da` `SELECT id,name FROM `{projectId}.{datasetName}.{tableName}`;` `SELECT service.id, word_count FROM bigquery-public-data.sar`

In order to fetch values from the 'project' object, it is possible to write it as 'project.id', project.name, etc.

Authentication

Client ID

This parameter should contain the Client ID as part of the Google Service Account Key JSON file.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Client Email

This parameter should contain the client email as part of the Google Service Account Key JSON file.

Technical Name	`client_email`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`test-example.iam@gserviceaccount.com`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the

necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	`-----BEGIN PRIVATE KEY-----`
	`private-key`
	`-----END PRIVATE KEY-----`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Extracted Data

Endpoint:	https://accounts.google.com/o/oauth2/auth
Description:	Authorization URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	https://oauth2.googleapis.com/token
Description:	Token URI endpoint for Google Cloud.
Documentation:	n/a

Tables

Table	Column	Type
big_query_result		

Google Cloud Compute

Connects to the Google Cloud Compute REST API and retrieves zones, instances, and machine types and writes instances, licenses, and tags.

Prerequisites

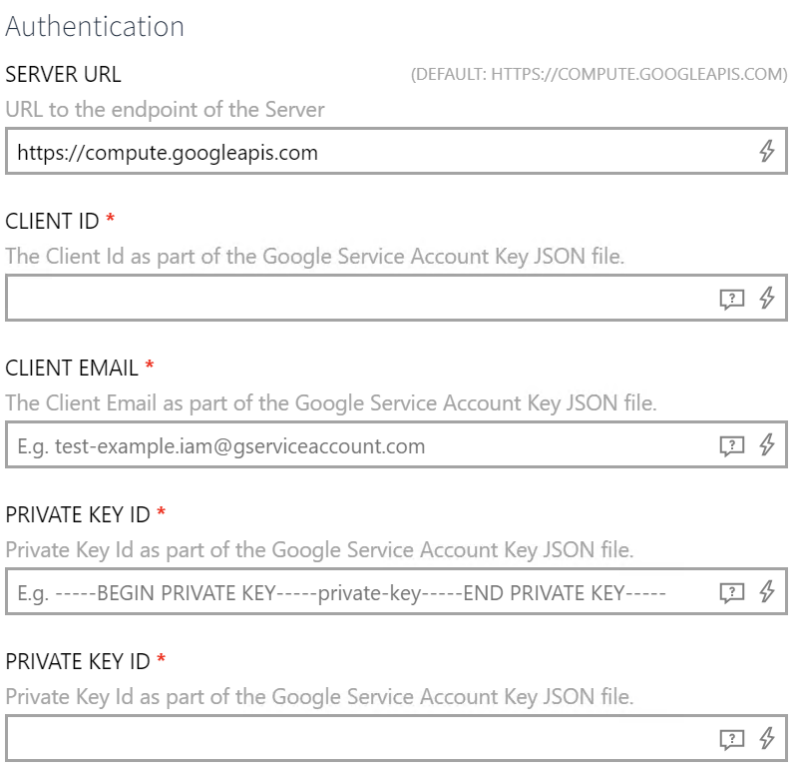
In order to use the connector it is necessary to create a service account in order to receive a JSON key file.

A service account and the service account key can be created by executing the following steps:

- Go to the **Create service account** page.
- Select the target project.
- Enter a descriptive name into the **Service account name** field and enter a description into the **Service account description** field.
- Click on the **Create and continue** button.
- Select a role with the necessary permissions from the **Select a role** list under **Project** > **Owner** to grant the necessary rights to the service account that is used.
  It is possible to assign multiple roles by clicking on the **+ Add another role** button.
- Click on the **Continue** button.
- Click on the **Done** button to finalize the creation of the service account.
- Click on the email address of the newly created service account.
- Click on **Keys**.
- Click **Add key** and then click on the **Create new key** button.
- Click on the **Create** button to create and download the JSON key file.
- Click on the **Close** button.

The newly created JSON key file contains all the information that is needed to setup the connector.

Connector Setup



- Enter the Client ID that can be found in the JSON key file into the **CLIENT ID** field.
- Enter the email address that has been used for the service account into the **CLIENT EMAIL** field. The email address should also be available in the JSON key file.
- Enter the Private Key that can be found in the JSON key file into the first **PRIVATE KEY ID** field.
- Enter the Private Key ID that can be found in the JSON key file into the second **PRIVATE KEY ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Project IDs

This parameter contains the Project IDs for which Google Cloud data will be fetched.

Technical Name	`required_ci_fields`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null, ["decisive-light-XXXXXX", "adroit-hall-332212"]`

Project IDs to which the Service Account Key has access, and for which Google Cloud data shall be fetched. If none is set, all Project IDs to which the Service Account has access rights will be retrieved.

Zones

This parameter contains the list of the zones for which the compute instances will be fetched. If none are set, instances for all available zones will be fetched. Requires the `compute.zones.list scope`.

Technical Name	`required_ci_fields`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null, ["europe-west1-b", "europe-west1-c"]`

The list of zones can be found here.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://compute.googleapis.com`
Example Values	`https://compute.googleapis.com`

Client ID

This parameter should contain the Client ID as part of the Google Service Account Key JSON file.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Client Email

This parameter should contain the client email as part of the Google Service Account Key JSON file.

Technical Name	`client_email`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`"test-example.iam@gserviceaccount.com"`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	`"-----BEGIN PRIVATE KEY-----`
	`private-key`
	`-----END PRIVATE KEY-----"`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://accounts.google.com/o/oauth2/auth
Description:	Authorization URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	https://oauth2.googleapis.com/token
Description:	Token URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	https://cloudresourcemanager.googleapis.com/v1/projects

Description:	List projects. Requires at least the `resourcemanager.projects.get` permission. This endpoint is used only if the parameter `Project Ids` is not provided.
Documentation:	https://cloud.google.com/resource-manager/reference/rest/v1/projects/list

Endpoint:	`{serverUrl}/compute/v1/projects/{projectIdInstances}/zones/`
Description:	List instances. Requires the `compute.instances.list` scope.
Documentation:	https://cloud.google.com/compute/docs/reference/rest/v1/instances

Endpoint:	`{+serverUrl}/compute/v1/projectgs/{projectId}zones`
Description:	List zones. Requires the `compute.zones.list` scope.
Documentation:	https://cloud.google.com/compute/docs/reference/rest/v1/zones/list

Endpoint:	`{+serverUrl}/compute/v1/projects/{projectIdMachineType}/zone`
Description:	Fetch machine type. Requires the `compute.machineTypes.get` scope.
Documentation:	https://cloud.google.com/compute/docs/reference/rest/v1/machineTypes/get

Tables

Table	Column	Type
gcp_instances	• clusterLocation • clusterName • clusterUid • cpuPlatform • creationTimestamp • description • guestCpus • id • imageSpaceGb • lastStartTimestamp • lastStopTimestamp • link • machineType • memoryMb • name • networkIpAddresss • status • zone	• String • String • String • String • String • String • Integer • String • Integer • String • String • String • String • Integer • String • String • String • String
gcp_licenses	• instanceId • licence	• String • String
gcp_tags	• instanceId • tag	• String • String

Google Cloud Kubernetes

Connects to the Google Cloud Kubernetes v1beta1 REST API and retrieves locations and clusters. The connector uses **v1beta** API instead of **v1** because **v1** does not provide the `projects.lcoations/list` endpoint.

Prerequisites

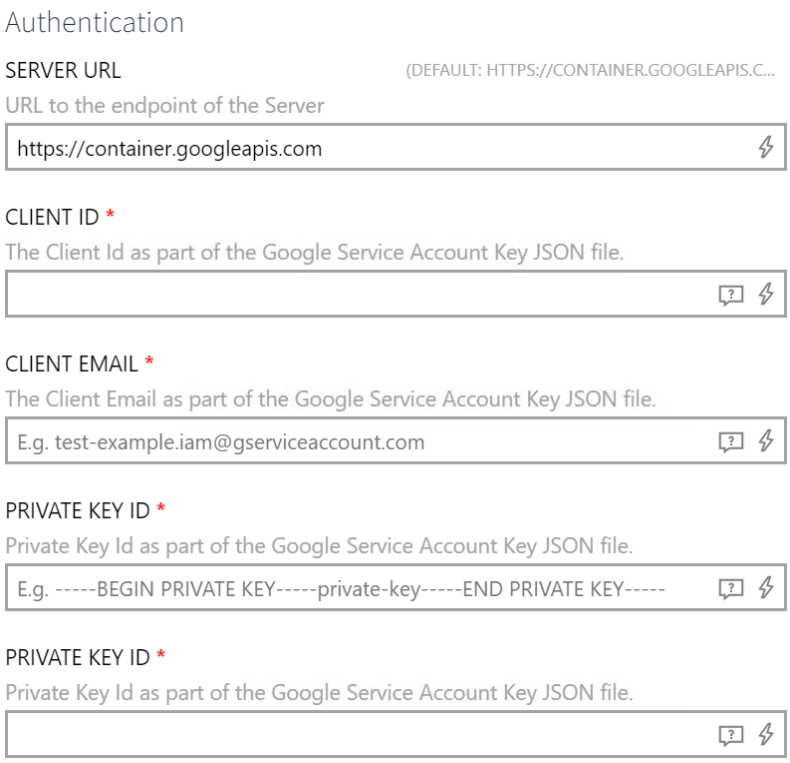
In order to use the connector it is necessary to create a service account in order to receive a JSON key file.

A service account and the service account key can be created by executing the following steps:

- Go to the **Create service account** page.
- Select the target project.
- Enter a descriptive name into the **Service account name** field and enter a description into the **Service account description** field.
- Click on the **Create and continue** button.
- Select a role with the necessary permissions from the **Select a role** list under **Project** > **Owner** to grant the necessary rights to the service account that is used.
  It is possible to assign multiple roles by clicking on the **+ Add another role** button.
- Click on the **Continue** button.
- Click on the **Done** button to finalize the creation of the service account.
- Click on the email address of the newly created service account.
- Click on **Keys**.
- Click **Add key** and then click on the **Create new key** button.
- Click on the **Create** button to create and download the JSON key file.
- Click on the **Close** button.

The newly created JSON key file contains all the information that is needed to setup the connector.

Connector Setup



- Enter the Client ID that can be found in the JSON key file into the **CLIENT ID** field.
- Enter the email address that has been used for the service account into the **CLIENT EMAIL** field. The email address should also be available in the JSON key file.
- Enter the Private Key that can be found in the JSON key file into the first **PRIVATE KEY ID** field.
- Enter the Private Key ID that can be found in the JSON key file into the second **PRIVATE KEY ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Project IDs

This parameter contains the Project IDs for which Google Cloud data will be fetched.

Technical Name	`required_ci_fields`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null, ["decisive-light-XXXXXX", "adroit-hall-332212"]`

Project IDs to which the Service Account Key has access, and for which Google Cloud data shall be fetched. If none is set, all Project IDs to which the Service Account has access rights will be retrieved.

Locations

This parameter contains the list of locations for which the clusters will be fetched. Defaults to all available locations.

Technical Name	`locations`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null, ["europe-west1", "europe-west1-c", "northamerica-northeast2-c"]`

The list of loactions (regions and zones) can be found here.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://container.googleapis.com`
Example Values	`https://container.googleapis.com`

Client ID

This parameter should contain the Client ID as part of the Google Service Account Key JSON file.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Client Email

This parameter should contain the client email as part of the Google Service Account Key JSON file.

Technical Name	`client_email`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`"test-example.iam@gserviceaccount.com"`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	`"-----BEGIN PRIVATE KEY-----`
	`private-key`
	`-----END PRIVATE KEY-----"`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://accounts.google.com/o/oauth2/auth`
Description:	Authorization URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	`https://oauth2.googleapis.com/token`
Description:	Token URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	`https://cloudresourcemanager.googleapis.com/v1/projects`
Description:	List projects. Requires at least the `resourcemanager.projects.get` permission. This endpoint is used only if the parameter `Project Ids` is not provided.
Documentation:	https://cloud.google.com/resource-manager/reference/rest/v1/projects/list

Endpoint:	`{+serverUrl}/v1beta1/projects/{projectId}/locations`

Description:	List locations that offer Google Kubernetes Engine. This endpoint is used only if the parameter `locations` is not provided.
Documentation:	https://cloud.google.com/kubernetes-engine/docs/reference/rest/v1beta1/projects.locations/list

Endpoint:	`{+serverUrl}/v1beta1/projects/{projectId}/locations/{locatic`
Description:	List clusters. Requires at least the `container.clusters.list` IAM permission.
Documentation:	https://cloud.google.com/kubernetes-engine/docs/reference/rest/v1beta1/projects.locations.clusters/list

Tables

Table	Column	Type
clusters	• createTime • currentMasterVersion • currentNodeCount • currentNodeVersion • diskSizeGb • diskType • endpoint • id • imageType • initialClusterVersion • location • machineType • name • network • selfLink • serviceAccount • servicesIpv4Cidr • status • zone	• String • String • Integer • String • Integer • String • String • String • String • String • String • String • String • String • String • String • String • String • String

Google Cloud SQL Administration

Connects to the Cloud SQL Admin API and retrieves instances.

Prerequisites

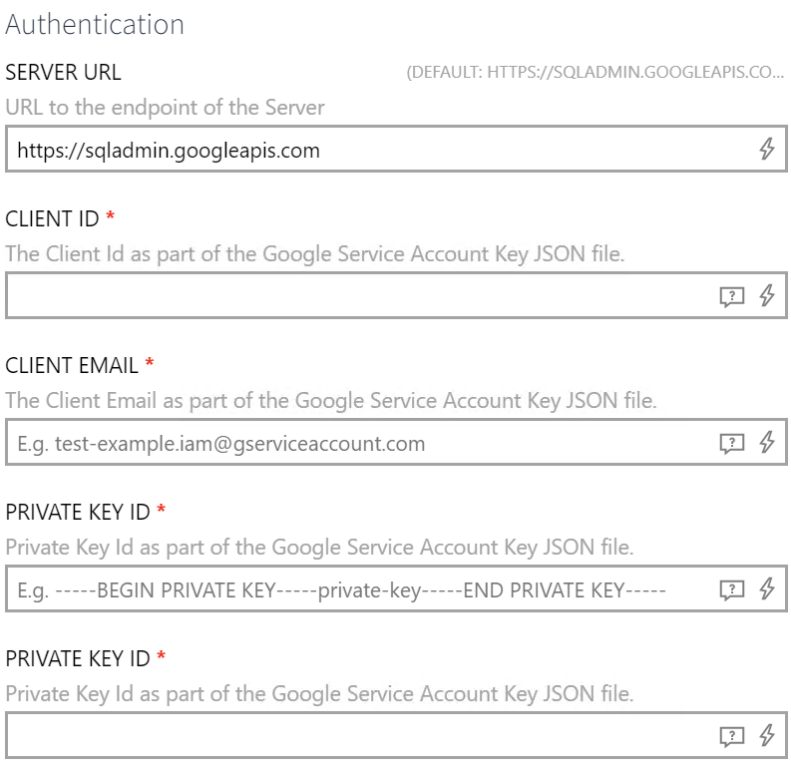
In order to use the connector it is necessary to create a service account in order to receive a JSON key file.

A service account and the service account key can be created by executing the following steps:

- Go to the **Create service account** page.
- Select the target project.
- Enter a descriptive name into the **Service account name** field and enter a description into the **Service account description** field.
- Click on the **Create and continue** button.
- Select a role with the necessary permissions from the **Select a role** list under **Project** > **Owner** to grant the necessary rights to the service account that is used.
  It is possible to assign multiple roles by clicking on the **+ Add another role** button.
- Click on the **Continue** button.
- Click on the **Done** button to finalize the creation of the service account.
- Click on the email address of the newly created service account.
- Click on **Keys**.
- Click **Add key** and then click on the **Create new key** button.
- Click on the **Create** button to create and download the JSON key file.
- Click on the **Close** button.

The newly created JSON key file contains all the information that is needed to setup the connector.

Connector Setup



- Enter the Client ID that can be found in the JSON key file into the **CLIENT ID** field.
- Enter the email address that has been used for the service account into the **CLIENT EMAIL** field. The email address should also be available in the JSON key file.
- Enter the Private Key that can be found in the JSON key file into the first **PRIVATE KEY ID** field.
- Enter the Private Key ID that can be found in the JSON key file into the second **PRIVATE KEY ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Project IDs

This parameter contains the Project IDs for which Google Cloud data will be fetched.

Technical Name	`required_ci_fields`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null, ["decisive-light-XXXXXX", "adroit-hall-332212"]`

Project IDs to which the Service Account Key has access, and for which Google Cloud data shall be fetched. If none is set, all Project IDs to which the Service Account has access rights will be retrieved.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String

Default Value	`https://sqladmin.googleapis.com`
Example Values	`https://sqladmin.googleapis.com`

Client ID

This parameter should contain the Client ID as part of the Google Service Account Key JSON file.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Client Email

This parameter should contain the client email as part of the Google Service Account Key JSON file.

Technical Name	`client_email`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`"test-example.iam@gserviceaccount.com"`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	`"-----BEGIN PRIVATE KEY-----`
	`private-key`
	`-----END PRIVATE KEY-----"`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://accounts.google.dcom/o/auth2/auth`
Description:	Authorization URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	`https://oauth2.googleapis.com/token`
Description:	Token URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	`https://cloudresourcemanager.googleapis.com/v1/projects`
Description:	List projects. Requires at least the `resourcemanger.projects.get` permission. This endpoint is used only if the parameter `Project Ids` is not provided.
Documentation:	https://cloud.google.com/resource-manager/reference/rest/v1/projects/list

Endpoint:	`{+serverUrl}/v1/projects/{projectId}/instances`

Description:	Lists instances under a given project.
Documentation:	https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1/instances/list

Tables

Table	Column	Type
instances	• dbSystemVersion • diskGb • id • ipAddress • link • machineType • name • pricingPlan • project • region • state • type • zone	• String • String • String • String • String • String • String • String • String • String • String • String • String

Google Cloud Storage Download

Connects to the Google Cloud Storage Download REST JSON API and retrieves objects (`.csv`, `.txt`, `.pdf`, etc.) and downloads them.

Prerequisites

In order to use the connector it is necessary to create a service account in order to receive a JSON key file.

A service account and the service account key can be created by executing the following steps:

- Go to the **Create service account** page.
- Select the target project.
- Enter a descriptive name into the **Service account name** field and enter a description into the **Service account description** field.
- Click on the **Create and continue** button.
- Select a role with the necessary permissions from the **Select a role** list under **Project** > **Owner** to grant the necessary rights to the service account that is used.
  It is possible to assign multiple roles by clicking on the **+ Add another role** button.
- Click on the **Continue** button.
- Click on the **Done** button to finalize the creation of the service account.
- Click on the email address of the newly created service account.
- Click on **Keys**.
- Click **Add key** and then click on the **Create new key** button.
- Click on the **Create** button to create and download the JSON key file.
- Click on the **Close** button.

The newly created JSON key file contains all the information that is needed to setup the connector.

Connector Setup

- Enter the name of the bucket from which to download the files into the **BUCKET NAME** field.
- Enter the list of the objects to be fetched and downloaded the **OBJECTS** field.
- Enter the Client ID that is used as part of the Google Service Account Key JSON file into the **CLIENT ID** field.
- Enter the Client Email that is used as part of the Google Service Account Key JSON file into the **CLIENT EMAIL** field.
- Enter the Private Key that is used as part of the Google Service Account Key JSON file into the **PRIVATE KEY** field.
- Enter the Private Key ID that is part of the Google Service Account Key JSON file into the **PRIVATE KEY ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Bucket Name

This parameter contains the name of the bucket from which to download the files.

Technical Name	`bucket_name`
Category	Functional
Type	String
Default Value	n/a
Example Values	`example_bucket-1`

Objects

This parameter contains the list of objects to be fetched and downloaded.

Technical Name	`objects`
Category	Functional
Type	Array
Default Value	n/a
Example Values	`example.csv,example_1.txt,example_2.pdf`

Skip Faulty Objects

There is the possibility that the GCSO API returns an object with no `'media link'` in it. In this case, using this parameter the download of these objects can be skipped and the connector can continue execution.

Technical Name	`skip_faulty_objects`
Category	Functional
Type	Array
Default Value	n/a
Example Values	`example.csv,example_1.txt,example_2.pdf`

Authentication

Client ID

This parameter should contain the Client ID as part of the Google Service Account Key JSON file.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Client Email

This parameter should contain the client email as part of the Google Service Account Key JSON file.

Technical Name	`client_email`

Category	Authentication
Type	String
Default Value	{empty}
Example Values	test-example.iam@gserviceaccount.com

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	private_key
Category	Authentication
Type	String
Default Value	{empty}
Example Values	-----BEGIN PRIVATE KEY----- private-key -----END PRIVATE KEY-----

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	private_key_id
Category	Authentication
Type	String

Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://storage.googleapis.com/storage/v1/b/{bucketName}/o/{objectName}`
Description:	Fetch object. Requires the `'storage.buckets.get'` and

	`'storage.objects.get'` scopes.
Documentation:	https://cloud.google.com/storage/docs/json_api/v1/objects/get

Endpoint:	https://accounts.google.com/o/oauth2/auth
Description:	Authorization URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	https://oauth2.googleapis.com/token
Description:	Token URI endpoint for Google Cloud.
Documentation:	n/a

Google Cloud VM Manager

Connects to the Google Cloud Compute OS Config REST API and fetches inventory data from Google OS inventory management.

Prerequisites

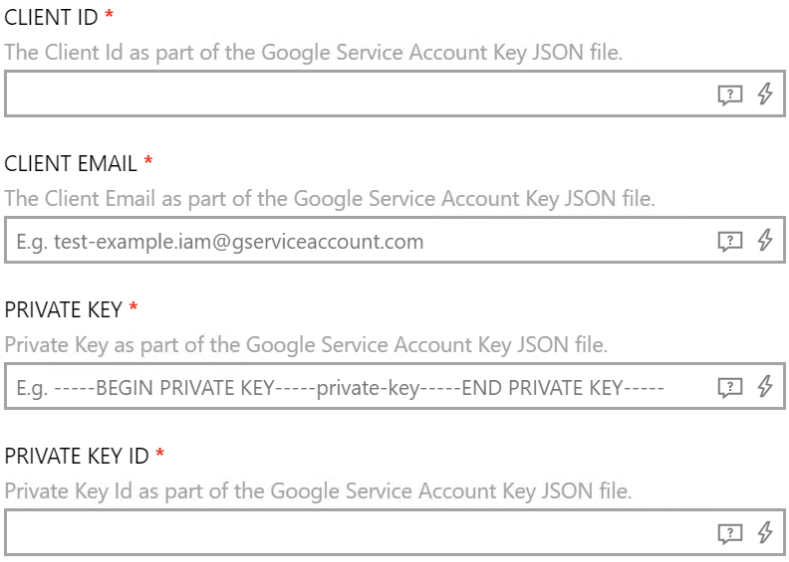
In order to use the connector it is necessary to create a service account in order to receive a JSON key file.

A service account and the service account key can be created by executing the following steps:

- Go to the **Create service account** page.
- Select the target project.
- Enter a descriptive name into the **Service account name** field and enter a description into the **Service account description** field.
- Click on the **Create and continue** button.
- Select a role with the necessary permissions from the **Select a role** list under **Project** > **Owner** to grant the necessary rights to the service account that is used.
  It is possible to assign multiple roles by clicking on the **+ Add another role** button.
- Click on the **Continue** button.
- Click on the **Done** button to finalize the creation of the service account.
- Click on the email address of the newly created service account.
- Click on **Keys**.
- Click **Add key** and then click on the **Create new key** button.
- Click on the **Create** button to create and download the JSON key file.
- Click on the **Close** button.

The newly created JSON key file contains all the information that is needed to setup the connector.

Connector Setup



- Enter the Client ID that is used as part of the Google Service Account Key JSON file into the **CLIENT ID** field.
- Enter the Client Email that is used as part of the Google Service Account Key JSON file into the **CLIENT EMAIL** field.
- Enter the Private Key that is used as part of the Google Service Account Key JSON file into the **PRIVATE KEY** field.
- Enter the Private Key ID that is part of the Google Service Account Key JSON file into the **PRIVATE KEY ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical

Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Project IDs

This parameter contains the Project IDs for which Google Cloud data will be fetched.

Technical Name	`project_ids`
Category	Functional
Type	Array
Default Value	`null`
Example Values	`null, [ decisive-light-XXXXXX,adroit-hall-332212 ]`

Project IDs to which the Service Account Key has access and for which Google Cloud data shall be fetched. If none is set, all Project IDs to which the Service Account has access right will be retrieved.

Zones

This parameter contains the list of the zones for which the compute instances will be fetched. If none are set, instances for all available zones will be fetched. This parameter requires the `'compute.zones.list'` scope.

Be aware:
Some zones do not work for the OsConfig API. Those zones are europe-southwest1-a, europe-southwest1-b, europe-southwest1-c. Therefore these zones are not included in the default zone list. If they are needed, they can be added or the parameter can be omitted so all zones for the project will be fetched.

Technical Name	`objects`
Category	Functional
Type	Array
Default Value	`us-east1-b,us-east1-c,us-east1-d,us-east4-c,`

	us-east4-b,us-east4-a,us-central1-c,us-central1-a, us-central1-f,us-central1-b,us-west1-b,us-west1-c, us-west1-a,europe-west4-a,europe-west4-b, europe-west4-c,europe-west1-b,europe-west1-d, europe-west1-c,europe-west3-c,europe-west3-a europe-west3-b,europe-west2-c,europe-west2-b, europe-west2-a,asia-east1-b,asia-east1-a, asia-east1-c,asia-southeast1-b,asia-southeast1-a, asia-southeast1-c,asia-northeast1-b,asia-northeast1-c, asia-northeast1-a,asia-south1-c,asia-south1-b, asia-south1-a,australia-southeast1-b, australia-southeast1-c,australia-southeast1-a, southamerica-east1-b,southamerica-east1-c, southamerica-east1-a,asia-east2-a,asia-east2-b, asia-east2-c,asia-northeast2-a,asia-northeast2-b, asia-northeast2-c,asia-northeast3-a,asia-northeast3-b, asia-northeast3-c,asia-south2-a,asia-south2-b, asia-south2-c,asia-southeast2-a,asia-southeast2-b, asia-southeast2-c,australia-southeast2-a, australia-southeast2-b,australia-southeast2-c, europe-central2-a,europe-central2-b,europe-central2-c, europe-north1-a,europe-north1-b,europe-north1-c, europe-west6-a,europe-west6-b,europe-west6-c, europe-west8-a,europe-west8-b,europe-west8-c, europe-west9-a,europe-west9-b,europe-west9-c, northamerica-northeast1-a,northamerica-northeast1-b, northamerica-northeast1-c,northamerica-northeast2-a, northamerica-northeast2-b,northamerica-northeast2-c, southamerica-west1-a,southamerica-west1-b, southamerica-west1-c,us-west2-a,us-west2-b, us-west2-c,us-west3-a,us-west3-b,us-west3-c, us-west4-a,us-west4-b,us-west4-c
Example Values	us-east1-b,us-east1-c,us-east1-d,us-east4-c, us-east4-b,us-east4-a,us-central1-c,us-central1-a, us-central1-f,us-central1-b,us-west1-b,us-west1-c, us-west1-a,europe-west4-a,europe-west4-b, europe-west4-c,europe-west1-b,europe-west1-d, europe-west1-c,europe-west3-c,europe-west3-a europe-west3-b,europe-west2-c,europe-west2-b, europe-west2-a,asia-east1-b,asia-east1-a, asia-east1-c,asia-southeast1-b,asia-southeast1-a, asia-southeast1-c,asia-northeast1-b,asia-northeast1-c, asia-northeast1-a,asia-south1-c,asia-south1-b, asia-south1-a,australia-southeast1-b, australia-southeast1-c,australia-southeast1-a, southamerica-east1-b,southamerica-east1-c, southamerica-east1-a,asia-east2-a,asia-east2-b, asia-east2-c,asia-northeast2-a,asia-northeast2-b, asia-northeast2-c,asia-northeast3-a,asia-northeast3-b, asia-northeast3-c,asia-south2-a,asia-south2-b, asia-south2-c,asia-southeast2-a,asia-southeast2-b, asia-southeast2-c,australia-southeast2-a,

	australia-southeast2-b,australia-southeast2-c, europe-central2-a,europe-central2-b,europe-central2-c, europe-north1-a,europe-north1-b,europe-north1-c, europe-west6-a,europe-west6-b,europe-west6-c, europe-west8-a,europe-west8-b,europe-west8-c, europe-west9-a,europe-west9-b,europe-west9-c, northamerica-northeast1-a,northamerica-northeast1-b, northamerica-northeast1-c,northamerica-northeast2-a, northamerica-northeast2-b,northamerica-northeast2-c, southamerica-west1-a,southamerica-west1-b, southamerica-west1-c,us-west2-a,us-west2-b, us-west2-c,us-west3-a,us-west3-b,us-west3-c, us-west4-a,us-west4-b,us-west4-c

The complete list of zones can be found here.

Authentication

Client ID

This parameter should contain the Client ID as part of the Google Service Account Key JSON file.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Client Email

This parameter should contain the client email as part of the Google Service Account Key JSON file.

Technical Name	`client_email`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`test-example.iam@gserviceaccount.com`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	`-----BEGIN PRIVATE KEY-----`
	`private-key`
	`-----END PRIVATE KEY-----`

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Private Key ID

This parameter should contain the Private Key Id as part of the Google Service Account Key JSON file.

Technical Name	`private_key_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

In order to use the connector it is necessary to create a Service Account Key JSON file as explained in the official documentation. Download it to the local machine and extract the necessary data from the JSON file for the operation of the connector. To use one Service Account Key in multiple projects it has to be added in IAM of other projects. The connector requires the following scope for authentication: https://www.googleapis.com/auth/cloud-platform.

Task Parameters

Page Size

This parameter specifies the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://cloudresourcemanager.googleapis.com/v1/projects
Description:	List projects. Requires at least the 'resourcemanager.projects.get' permission. This endpoint is only used if the parameter 'Project IDs' is not provided.
Documentation:	https://cloud.google.com/resource-manager/reference/rest/v1/projects/list

Endpoint:	`https://compute.googleapis.com/compute/v1/projects/{projectId}/zones`
Description:	List zones. Requires the `'compute.zones.list'` scope.
Documentation:	https://cloud.google.com/compute/docs/reference/rest/v1/zones/list

Endpoint:	`https://osconfig.googleapis.com/v1/projects/{projectId}/locations/{zone}/instances/-/inventories`
Description:	Lists inventory data for all VM instances in the specified zone. Requires the `'osconfig.inventories.list'` scope.
Documentation:	https://cloud.google.com/compute/docs/osconfig/rest/v1/projects.locations.instances.inventories/list

Endpoint:	https://accounts.google.com/o/oauth2/auth
Description:	Authorization URI endpoint for Google Cloud.
Documentation:	n/a

Endpoint:	https://oauth2.googleapis.com/token
Description:	Token URI endpoint for Google Cloud.
Documentation:	n/a

Tables

Table	Column	Type
`vmmanager_inventory`	• `architecture` • `hostname` • `kernelRelease` • `kernelVersion` • `longName` • `name` • `osconfigAgentVersion` • `shortName` • `updateTime` • `version`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`

HCL BigFix Inventory

This connector fetches generic data based on the user parameters from the HCL REST API. The connector supports two ways of authentication:

1. Use an **apiKey** (token) directly.
2. Use a **username** and **password**.

The client must provide parameters for one of those two ways of authentication.

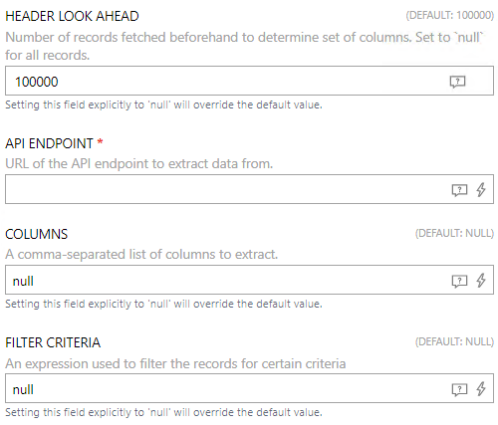
Prerequisites

In order to use the connector a username and a password for BASIC authentication are sufficient. It is also possible to directly use an API Key. In order to find the API Key execute the following steps:

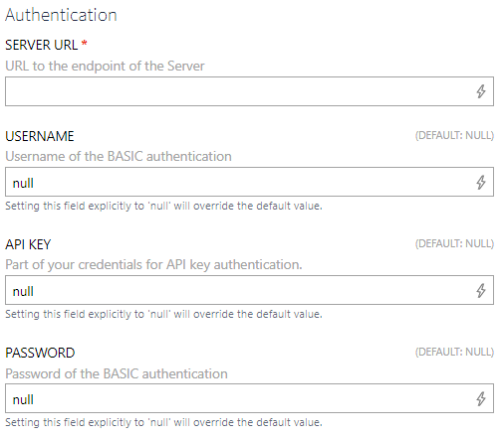
1. Log in to BigFix inventory.
2. Hover over the **User** icon and click on **Profile**.
3. Click on **Show token**.

> **WARNING**
> The connection to this REST API will not work when single sign-on authentication is enabled. Ensure that the single sign-on authentication is deactivated.

Connector Setup



- Enter the URL to the API endpoint to extract the data from into the **API ENDPOINT** field.
- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Either enter an API Key into the **API KEY** field or enter



a username and a password into the **USERNAME** and the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`

Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Header Look Ahead

This parameter contains the number of records fetched beforehand to determine the set of columns. Set to `null` in order to fetch all records.

Technical Name	`header_look_ahead`
Category	Functional
Type	Integer `null`
Default Value	`100000`
Example Values	`100000, null`

Some API endpoints have variable records, but do not describe the columns and respectively the column names beforehand. However, this is necessary to prepare the output CSV. The connector will collect and cache a number of records before writing the first line to CSV. If this number is too small, then not all fields may be determined, and these will be missing in the final data. If the number is large, the memory consumption of the connector will increase.

API Endpoint

This parameter contains the URL of the API endpoint from which data will be extracted.

Technical Name	`end_point`
Category	Functional
Type	String
Default Value	n/a
Example Values	

URL of the API endpoint to query relative to the server URL. The complete URL is constructed by resolving the endpoint to the Server URL, i.e. '{serverUrl}/{endPoint}'. This is necessary to allow multiple endpoints with the same server base URL in the future.

Columns

This parameter contains a comma-separated list of the columns to extract.

Technical Name	`columns`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

A comma-separated list of table fields to extract. If omitted, the default columns are fetched. Note that by default not all fields are returned.

Filter Criteria

This parameter contains an expression that is used to filter the records for certain criteria.

Technical Name	`criteria`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

An expression used to filter the records for certain criteria. The exact way how to compose those expressions is described here.

Start Date

This parameter contains the date from which the data will be received in a YYYY-MM-DD format.

Technical Name	`start_date`
Category	Functional
Type	String

	`null`
Default Value	`null`
Example Values	`null, 1970-01-01`

Date in YYYY-MM-DD format from which data will be received. Currently only supported within the license_usage_resource of API v2. If not specified, the default value is the date of the last successful data import to BigFix Inventory minus the number of days for which data in the corresponding computer group is calculated (90 days per default).

End Date

This parameter contains the date until which the data will be received in a YYYY-MM-DD format.

Technical Name	`end_date`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null, 1970-12-31`

Specify the date until which data should be retrieved. Specify it in the YYYY-MM-DD format. If this filter is not specified, its default value is the date of the last successful import of data to the License Metric Tool.

Order

This parameter contains the column name used for ordering the result set before the extraction. Set `null` for no specific order.

Technical Name	`order`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null, server_name asc, peak_value desc`

Column name used for ordering the result set before extraction. Default sort order is ascending. For descending sort order append desc to the column name (include space between column name and desc).

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains part of the credentials used for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

API Key

This parameter contains part of the credentials used for the API key authentication.

Technical Name	`api_key`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Password

This parameter contains part of the credentials used for the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`10000`
Example Values	`10000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/api/get_token
Description:	Authenticate with the api and returns a token in exchange for valid credentials.
Documentation:	https://help.hcltechsw.com/bigfix/9.5/inventory/Inventory/integration/r_get_token.html

Tables

Table	Column	Type
generic		

Help Scout

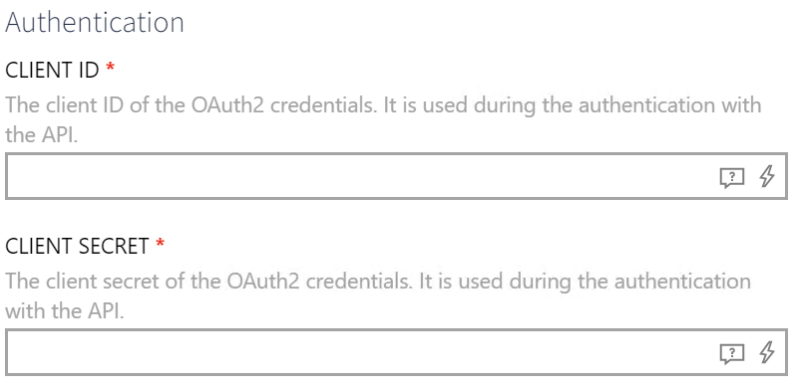
Connects the Help Scout REST API and retrieves user data.

Prerequisites

In order to get the Client ID and the Client Secret that are necessary to identify with the API it is necessary to first create an OAuth application. This can be done by executing the following steps.

1. Navigate to **Your Profile** > **My apps** and click on **Create My App**.
2. The Client ID can now be found in the **App ID** field in the **Credentials** section of the OAuth application and the **Client Secret** can be found in the **App Secret** field.
3. Click on **Save** to finalize the creation of the OAuth application.

Connector Setup



- Enter the Client ID of the OAuth2 credentials that will be used for the authentication with the API into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth2 credentials that will be used for the authentication with the API into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Client ID

This parameter contains the Client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

To obtain the Oauth credentials (Client ID and Client Secret) an app registration has to be performed. This procedure is described here.

Client Secret

This parameter contains the Client Secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String

Default Value	n/a
Example Values	`{empty}`

To obtain the Oauth credentials (Client ID and Client Secret) an app registration has to be performed. This procedure is described here.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://api.helpscout.net/v2/oauth2/token`
Description:	The OAuth2 authentication endpoint.
Documentation:	https://developer.helpscout.com/mailbox-api/overview/authentication

Endpoint:	`{+serverUrl}/api.helpscout.net/v2/users`
Description:	List all users.
Documentation:	https://developer.helpscout.com/mailbox-api/endpoints/users/list/

Tables

Table	Column	Type
`users`	• `createdAt` • `email` • `firstName` • `id` • `initials` • `jobTitle` • `lastName` • `mention` • `phone` • `photoUrl` • `role` • `timezone` • `type` • `updatedAt`	• `String` • `String` • `String` • `Integer` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`

Heroku

Connects to the Heroku Platform API. It fetches monthly enterprise consumption, monthly enterprise consumption teams, and monthly enterprise consumption teams apps data.

Prerequisites

In order to use the Heroku connector, a user with API-related access rights is required. The following data is needed in order to log in via the API:

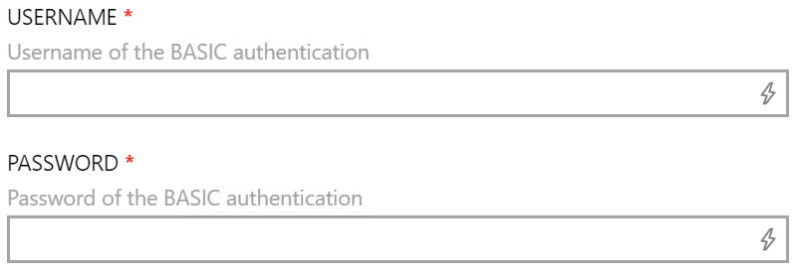
- Enterprise Account ID
- Username
- Password

Execute the following steps:

- Create the required credentials.
- Add the credentials to the connector and execute it.
- Add the extracted data to the data processing and push it to the applications.

Connector Setup

- Enter the ID of the enterprise account that is used into the **ENTERPRISE ACCOUNT ID** field.



- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Consumption Since

This parameter contains the period of consumption in ISO-8601.

Technical Name	`consumption_interval`
Category	Functional
Type	String
Default Value	`P12M`
Example Values	`P12M, P0M, P1M, P2M, P6M`

Fetch only the monthly consumption in this period, form current time backwards, rounded up to the full month. To fetch only the current month, pass `P0M`.

Enterprise Account Id

This parameter contains the ID of the enterprise account.

Technical Name	`enterprise_account_id`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	

Authentication

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://api.heroku.com/oauth/autherization
Description:	Token endpoint of the Heroku Platform API.
Documentation:	https://devcenter.heroku.com/articles/oauth#direct-authorization

Endpoint:	`https://api.heroku.com/entprise-accounts/{enterpriseAccount`
Description:	Endpoint for enterprise account monthly consumption data.
Documentation:	https://devcenter.heroku.com/articles/platform-api-reference#enterprise-account-monthly-usage

Tables

Table	Column	Type
monthly_enterpi	• addons • connect • data • dynos • id • month • name • partner • space	• Number • Integer • Number • Number • String • String • String • Number • Integer
monthly_enterpi	• addons • connect • data • dynos • enterpriseAccountId • id • month • name • partner • space	• Number • Integer • Number • String • String • String • String • String • Number • Integer
monthly_enterpi	• addons • appName • connect • data • dynos • enterpriseAccountId • month • partner • teamId	• Number • String • Integer • Number • Number • String • String • Number • String

HP Universal CMDB

This connector is NOT available for ST mode execution!

It is only possible to run it in stand-alone mode with a dependency that has to be provided by the customer as described here. The UCMDB connector enables extraction of data stored in Universal CMDB (UCMDB) instances. The connector makes use of UCMDB's Java-based API in order to fetch results of topology queries in UCMDB.

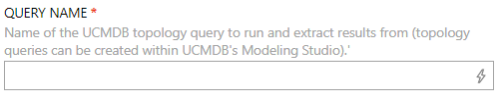
Example command for UCMDB:

```
java -cp
kotlin-connectors-st-bundle-uber-VERSION.jar:api-interfaces-10.33.120.jar
com.usu.kcon.MainKt hp.ucmdb
```

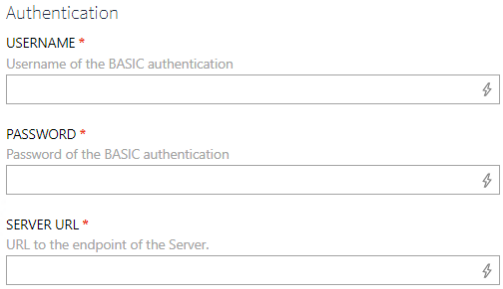
Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the name of the UCMDB topology query to run and extract results from into the **QUERY NAME** field in the **Configuration** tab. Queries can be created within the UCMDB's Modeling Studio.



- Enter the username of the user used for the BASIC authentication into the **USERNAME** field in the **Connection** tab.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field in the **Connection** tab.
- Enter the URL to the endpoint of the server into the **SERVER URL** field in the **Connection** tab.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

User Repository

This parameter defines the user repository for authentication in newer versions.

Technical Name	`user_repository`
Category	Functional

Type	String
Default Value	`UCMDB`
Example Values	`UCMDB`

The library will require this parameter for authentication in newer versions. Its purpose is unclear. Probably one of the following values is meaningful: 'UCMDB', 'LDAP'. Take a look at the official documentation.

Query Name

This parameter contains the name of the UCMDB topology query to run and extract results from (topology queries can be created within UCMDB's Modeling Studio).

Technical Name	`query_name`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Base CI Type REGEX

This parameter contains regular expressions matching CI types.

Technical Name	`base_ci_type_pattern`
Category	Functional
Type	String
Default Value	n/a
Example Values	`(?i)cpu`

Topology query results are hierarchical graphs that need to be transformed to flat/tabular CSV files. The processor will generate one CSV record for all CIs in the query result whose CI type matches the regular expression specified 'base_ci_type_regex'. Properties of related Cis in the query result might be joined to each record (see parameter traverse).

Traverse

This parameter can be used to activate the traversal of incoming or outgoing relations in the topology query result.

Technical Name	`traverse`
Category	Functional
Type	String
Default Value	`false`
Example Values	`false, incoming, outgoing`

Properties of related CIs that are found during traversal are joined to each base CI's CSV record. In case multiple CIs of the same type are joined for a CSV record, properties of these CIs are separated with the string sequence specified by parameter 'join_separator' in each CSV record and field. Default join separator is a comma followed by a space character, see documentation for parameter 'join_separator' below. In case single records should be exploded into multiple records during join, use IPP PCRE explode with 'pcre_expression = (\\[^[', \\]]+)' to transform comma-separated properties into multiple records.

CI Type Mapping

This parameter contains a comma-separated list of the mappings for CI types.

Technical Name	`ci_type_mapping`
Category	Functional
Type	String
Default Value	n/a
Example Values	`nt:node,unix:node,vmware_esx_server:node,ip_address:ip`

This can be used to combine properties of different CI types into single fields. This parameter can also be used to rename the name for certain CI types in order to achieve shorter CSV headline fields. In this example the CI types 'nt', 'unix', and 'vmware_esx_server' are merged into the CI type node while 'ip_address' CIs are renamed/prefixed with 'ip'.

Deduplicate Properties

This parameter can be used to remove duplicate properties during a join.

Technical Name	`deduplicate_properties`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`n/a`
Example Values	

'192.168.0.1, 192.168.0.2, 192.168.0.1' would be deduplicated to '192.168.0.1, 192.168.0.2'.

Join Separator

This parameter defines the string separator for properties during a join of related CIs.

Technical Name	`join_separator`
Category	Functional
Type	String
Default Value	,
Example Values	,

String sequence to use as a separator for properties during the join of related CIs.

Authentication

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a

Example Values	

Password

This parameter contains the password of the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Extracted Data

Tables

Table	Column	Type
`ci`		

Huawei Cloud Stack

Connects to the Huawei Cloud Stack ManageOne API and fetches:

- servers
- vms
- physical hosts
- storage devices
- cpus
- disks
- images
- clusters
- tenant cloud vms

And relationships between:

- VMs and images
- physical hosts and VMs
- clusters and physical hosts.

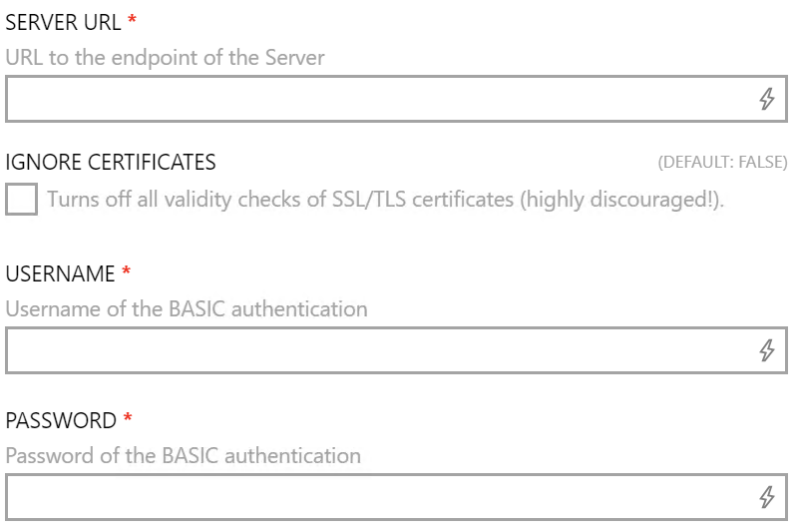
The user for the API access requires the following permissions:

- Application-Level Operation Rights
- API Management
- Perform GET operations

Prerequisites

For authentication with the Couchbase REST API the URL of the server, the username of a valid user and the corresponding password are needed.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- The **IGNORE CERTIFICATES** checkbox can be used to turn off all validity checks for SSL/TLS certificates. Turning of the validity checks is highly discouraged!
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`{empty}`
Example Values	

Ignore Certificates

This parameter is used to turn off all validity checks of SSL/TLS certificates (highly discouraged!).

Technical Name	`ignore_certificates`
Category	Authentication
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Page Size

This parameter specifies the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/rest/plat/smapp/v1/oauth/token`
Description:	Authenticate with the API and returns an access token in exchange for valid credentials.
Documentation:	https://bbs-huaweicloud-com.translate.goog/forum/thread-134356-1-1.html?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=sr

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/SYS_X86Server`
Description:	List server instances.
Documentation:	https://bbs.huaweicloud.com/forum/thread-40758-1-1.html

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/SYS_VM`
Description:	List virtual machine instances.
Documentation:	https://bbs.huaweicloud.com/forum/thread-58733-1-1.html

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/SYS_PhysicalHost`
Description:	List physical host instances.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/SYS_StorDevice`
Description:	List storage device instances.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/SYS_CPU`
Description:	List cpu instances.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/SYS_Disk`
Description:	List disk instances.

Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/SYS_Image`
Description:	List flavor instances
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/SYS_Cluster`
Description:	List cluster instances
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/tenant/resources/CLOUD_VM`
Description:	List tentant cloud VMs.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/relations/M_VMUsesImage`
Description:	Relationship between VMs and images.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/relations/M_PhyHostVirtualizesVM`
Description:	Relationship between physical hosts and VMs.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/cmdb/v1/instances/relations/M_ClusterContainsPhyHost`
Description:	Relationship between clusters and physical hosts.
Documentation:	n/a

Tables

Table	Column	Type
servers	• assetStatus • category • classId • className • confirmStatus • cpuCores • dataSource • dataStatus • deviceName • deviceType • hostIpAddress • hostName • hostStatus • hostType • id • ipAddress • lastModified • lastMonitorTime • logicalRegionId • logicalRegionName • manufacturer • memoryCapacity • name • nativeId • neDN • ownerId • ownerName • ownerType • powerState • productName • regionId • remark • resId • sn • status • uuid	• String • String • Integer • String • String • Integer • String • String • String • String • String • String • String • String • String • String • Integer • Integer • String • String • String • Number • String • String • String • String • String • String • String • String • String • String • String • String • String • String
vms	• category • classId • className • confirmStatus • createTime • deviceName • extraSpecs • id • ipAddress • isVirtual	• String • Integer • String • String • String • String • String • String • String • Boolean

Table	Column	Type
	• keystoneId • lastModified • lastMonitorTime • logicalRegionId • logicalRegionName • name • nativeId • originalState • ownerId • ownerName • ownerType • podNativeId • projectId • regionId • resId • resourcePoolId • resourcePoolName • status	• String • Integer • Integer • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String
physical_hosts	• allocatedDiskSizeMB • allocatedRamSizeMB • allocatredVcpuCores • allocatedVmemoryMB • azoneId • bmcIp • category • classId • className • confirmStatus • cpuQuantityForVirtualization • cpuRatio • deviceName • freeDiskSizeMB • freeVcpuCores • freeVmemoryMB • hypervisorEnable • hypervisorType • id • ipAddress • isVirtual • keystoneId • lastModified • lastMonitorTime • logicalRegionId • logicalRegionName • name • nativeId • ownerId • ownerName	• Integer • Integer • Integer • Integer • String • String • String • Integer • String • String • Integer • String • String • Integer • Integer • Integer • Boolean • String • String • String • Boolean • String • Integer • Integer • String • String • String • String • String • String

Table	Column	Type
	• ownerType • podId • ramAllocationRatio • regionId • resId • resourcePoolId • resourcePoolName • serialNumber • status • totalDiskSizeMB • totalRamSizeMB • totalVcpuCores • totalVmemoryMB • trustLvl	• String • String • String • String • String • String • String • String • String • Integer • Integer • Integer • Integer • String
storage_devices	• assetStatus • category • classId • className • confirmStatus • dataSource • dataStatus • deviceName • deviceType • hotDiskCapacity • hotFreeCapacity • hotUsedCapacity • id • ipAddress • lastModified • lastMonitorTime • logicalRegionId • logicalRegionName • manufacturer • mappedLunCapacity • name • nativeId • neDN • ownerId • ownerName • ownerType • productName • regionId • remark • resId • sn • status • totalCapacity • unmappedLunCapacity	• String • String • Integer • String • String • String • String • String • String • Number • Number • Number • String • String • Integer • Integer • String • String • String • Number • String • String • String • String • String • String • String • String • String • String • String • String • Number • Number

Table	Column	Type
	• usedCapacity	• Number
cpu	• classId • className • confirmStatus • dataSource • dataStatus • frequency • id • lastModified • lastMonitorTime • logicalRegionId • manufacturer • name • nativeId • ownerId • ownerName • ownerType • productName • regionId • resId • serverId • status	• Integer • String • String • String • String • Number • String • Integer • Integer • String • String • String • String • String • String • String • String • String • String • String • String
disk	• classId • className • confirmStatus • dataSource • dataStatus • id • lastModified • lastMonitorTime • logicalRegionId • name • nativeId • ownerId • ownerName • ownerType • physicalType • regionId • resId • serverId • status	• Integer • String • String • String • String • String • Integer • Integer • String • String • String • String • String • String • String • String • String • String • String
cloud_vms	• azoneId • azoneName • bizRegionId • bizRegionName • cascadeType • className	• String • String • String • String • Integer • String

Table	Column	Type
	• cloudLocationName • cloudType • clusterId • clusterName • cpuCoreNum • createdAt • extraSpecs • flavorId • floationgIp • hostId • hypervisorType • id • imageId • lastModified • launchedAt • name • nativeId • ownerId • ownerType • physicalHostId • podId • powerState • privateIps • projectId • regionId • regionName • resId • resourcePoolId • resourcePoolName • status • tags • taskState • tenantId • tenantName • userId • vdcId • vdcName • vmState	• String • String • String • String • String • String • String • String • String • String • String • String • String • Integer • String
image	• classId • className • confirmStatus • createdAt • id • keystoneId • lastModified • lastMonitorTime • logicalRegionId • minDisk	• Integer • String • String • String • String • String • Integer • Integer • String • Integer

Table	Column	Type
	• minRam • name • nativeId • osType • osVersion • ownerId • ownerName • ownerType • regionId • resId • resourcePoolId • resourcePoolName	• Integer • String • String • String • String • String • String • String • String • String • String • String
cluster	• azoneId • classId • className • confirmStatus • deviceName • hypervisorType • id • keystoneId • lastModified • lastMonitorTime • logicalRegionId • name • nativeId • ownerId • ownerName • ownerType • regionId • resId • resourcePoolId • resourcePoolName	• String • Integer • String • String • String • String • String • String • Integer • Integer • String • String • String • String • String • String • String • String • String • String
vmuses_image_re	• associateType • id • lastModified • relationId • relationName • resId • sourceInstanceId • targetInstanceId	• String • String • Integer • Integer • String • String • String • String
phyhost_virtual	• associateType • id • lastModified • relationId • relationName • resId • sourceInstanceId	• String • String • Integer • Integer • String • String • String

Table	Column	Type
	• targetInstanceId	• String
clustercontains	• associateType • id • lastModified • relationId • relationName • resId • sourceInstanceId • targetInstanceId	• String • String • Integer • Integer • String • String • String • String

HubSpot

Connects to the HubSpot REST API and fetches users and contacts.

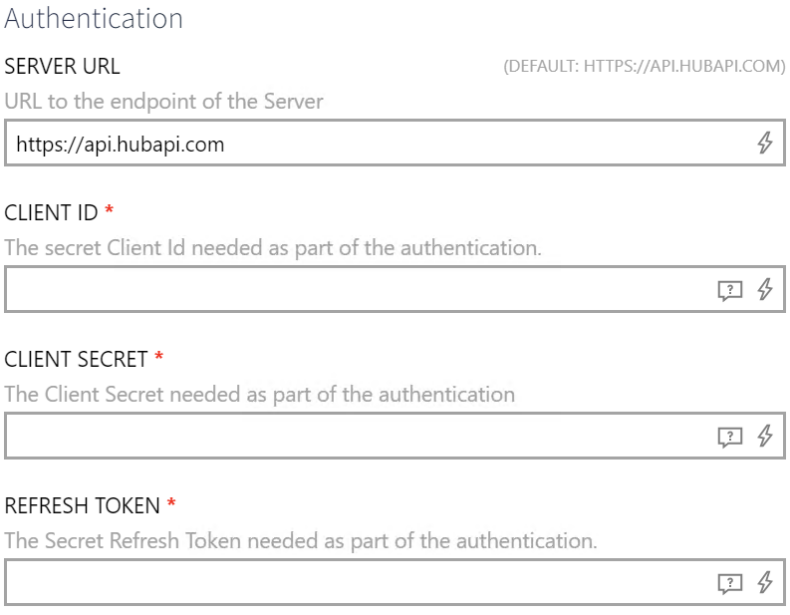
Prerequisites

In order to get the Client ID, the Client Secret, and the Refresh Token needed for the authentication it is necessary to execute the following steps.

1. Create an app in a HubSpot developer account. The Client ID and the Client Secret will now be available on the **Auth** page of the app settings.
2. Build an authorization URL using the Client ID, the Client Secret, and the scopes that are necessary.
3. Use the URL to get redirected back to the application via the redirect_url which will now have a code query parameter appended.
4. Use the code query parameter together with the client secret to get the Refresh Token from HubSpot.

Detailed information on the creation of the OAuth app and the Refresh Token can be found in the official HubSpot documentation in the Working with OAuth section.

Connector Setup



- By default, the **SERVER URL** field is set to `https://api.hubapi.com`.
- Enter the Client ID that will be used for the authentication with the API into the **CLIENT ID** field
- Enter the Client Secret that will be used for the authentication with the API into the **CLIENT SECRET** field.
- Enter the secret Refresh Token that is needed for the authentication into the **REFRESH TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`https://api.hubapi.com`
Example Values	`https://api.hubapi.com`

Client ID

This parameter contains the Client ID needed as part of the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Client ID is generated during the Application Setup. Selecting a correct redirect domain is highly security relevant, because authentication tokens will be sent to those domains later in the process. A good choice would be the domain of the company or `https://localhost`. After the application setup, the Client ID and Client Secret are displayed.

Client Secret

This parameter contains the Client Secret needed as part of the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Client Secret is generated during the Application Setup. Selecting a correct redirect domain is highly security relevant, because authentication tokens will be sent to those domains later in the process. A good choice would be the domain of the company or `https://localhost`. After the application setup, the Client ID and Client Secret are displayed.

Refresh Token

This parameter contains the secret Refresh Token that is needed as part of the authentication.

Technical Name	`refresh_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Refresh Token is a long lived token which can be exchanged for short lived Access Tokens, which in turn are used by the connector to fetch the data. The Refresh Token must be generated interactively with the Client Secret and Client ID as described in the official documentation.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/oauth/v1/token`
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://developers.hubspot.com/docs/api/oauth-quickstart-guide

Endpoint:	`{+serverUrl}/settings/v3/users`
Description:	List users. Requires the `settings.users.read` scope.
Documentation:	https://developer.hubspot.com/docs/api/settings/user-provisioning

Endpoint:	`{+serverUrl}/crm/v3/objects/contacts`

Description:	List contacts. Requires the `contacts` scope.
Documentation:	https://developer.hubspot.com/docs/api/crm/contacts

Tables

Table	Column	Type
users	• email • id • roleId	• String • String • String
contacts	• archived • createDate • createdAt • email • firstName • hsObjectId • id • lastModifiedDate • lastName • updatedAt	• Boolean • String • String • String • String • String • String • String • String • String

IBM License Metric Tool

This connector fetches generic data based on the user parameters from the IBM REST API. The connector supports two ways of authentication:

1. Use an **apiKey** (token) directly.
2. Use a **username** and **password**.

The client must provide parameters for one of those two ways of authentication.

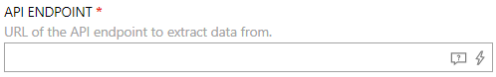
Prerequisites

In order to use the connector a username and a password for BASIC authentication are sufficient. It is also possible to directly use an API Key. In order to find the API Key execute the following steps:

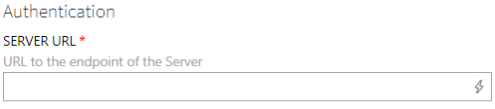
1. Log in to the License Metric Tool.
2. Hover over the **User** icon and click on **Profile**.
3. Click on **Show token**.

> **WARNING**
> The connection to this REST API will not work when single sign-on authentication is enabled. Ensure that the single sign-on authentication is deactivated.

Connector Setup



- Enter the URL of the API endpoint to extract data from into the **API ENDPOINT** field in the Configuration tab.



- Enter the URL to the endpoint of the server into the **SERVER URL** field in the Connection tab.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Header Look Ahead

This parameter defines the number of records fetched beforehand to determine the set of columns. Set to `null` for all records.

Technical Name	`header_look_ahead`
Category	Functional
Type	Integer `null`
Default Value	`100000`
Example Values	`100000, null`

Some API endpoints have variable records, but do not describe the columns and respectively the column names beforehand. However, this is necessary to prepare the output CSV. The connector will collect and cache a number of records before writing the first line to CSV. If this number is too small, then not all fields my be determined, and these will be missing in the final data. If the number is large, the memory consumption of the connector will increase.

API Endpoint

This parameter contains the URL of the API endpoint to extract data from.

Technical Name	`end_point`
Category	Functional
Type	String
Default Value	n/a
Example Values	

URL of the API endpoint to query relative to the server URL. The complete URL is constructed by resolving the endpoint to the Server URL, i.e. '{serverURL}/{endPoint}'. This is necessary to allow multiple endpoints with the same server base URL in the future.

Columns

This parameter contains a comma-separated list of the columns to extract.

Technical Name	`columns`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

A comma-separated list of table fields to extract. If omitted, the default columns are fetched. Note that by default not all fields are returned.

Filter Criteria

This parameter contains an expression that is used to filter the records for certain criteria.

Technical Name	`criteria`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

An expression used to filter the records for certain criteria. The exact way how to compose those expressions is described here.

Start Date

This parameter contains the date from which data will be received in a YYYY-MM-DD format.

Technical Name	`start_date`
Category	Functional
Type	String

	`null`
Default Value	`null`
Example Values	`null, 1970-01-01`

Date in YYYY-MM-DD format from which data will be received. Currently only supported within the license_usage resource of API v2. If not specified, the default value is the date of the last successful data import to BigFix Inventory minus the number of days for which data in the corresponding computer group is calculated (90 days per default).

End Date

This parameter contains the date until which data will be received in a YYYY-MM-DD format.

Technical Name	`end_date`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null, 1970-12-31`

Specify the date until which data should be retrieved. Specify it in the YYYY-MM-DD format. If no filter is specified, its default value is the date of the last successful import of data to the License Metric Tool.

Order

This parameter defines the column name used for ordering the result set before extraction. Use `null` for no specific order.

Technical Name	`order`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null, server_name asc, peak_value desc`

Column name used for ordering the result set before extraction. Default sort order is ascending. For descending sort order append desc to the column name (include space between column name and desc).

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Password

This parameter contains the password of the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

API Key

This parameter contains part of the credentials for the API key authentication.

Technical Name	`api_key`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Task Parameter

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`10000`
Example Values	`10000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`intial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/get_token`
Description:	Authenticate with the api and returns a token in exchange for valid credentials.
Documentation:	https://www.ibm.com/support/knowledgecenter/SS8JFY_9.2.0/com.ibm.lmt.doc/Inventory/integeration/r_get_token.html

Tables

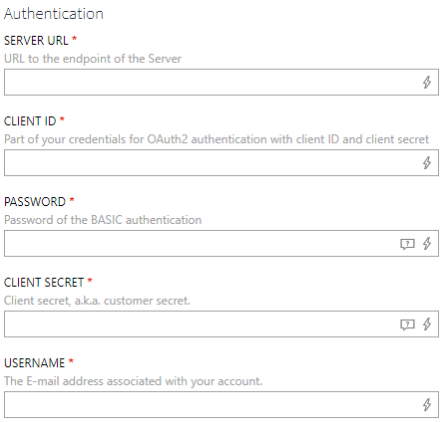
Table	Column	Type
`generic`		

Intralinks Platform

This connector is used to connect to the Intralinks Platform API. It collects user and workspace data.

Prerequisites

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the password which is part of the BASIC authentication into the **PASSWORD** field.
- Enter the Client Secret a.k.a. the Customer Secret into the **CLIENT SECRET** field.
- Enter the email address that is associated with the account into the **USERNAME** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter should contain the client ID which is associated with the account and together with the client secret part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	string
Default Value	n/a
Example Values	

Password

This parameter contains the password that is used for BASIC authentication. If the `client_credentials` grant type is used, a password is needed.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client Secret

This parameter should contain the client secret (also called customer secret) associated with the account.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute a successful HTTP request to the Intralinks Platform, a valid client secret is necessary.

Username

This parameter contains the e-mail address that is associated with the account.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameter

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer Null
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical

Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v2/users`
Description:	User endpoint of the Intralinks Platform REST API
Documentation:	n/a

Endpoint:	`{+serverUrl}/v2/workspaces`
Description:	User endpoint of the Intralinks Platform REST API
Documentation:	n/a

Endpoint:	`{+serverUrl}/v2/workspaces/{workspaceId}users`
Description:	Endpoint to retrieve the users per workspace
Documentation:	n/a

Tables

Table	Column	Type
`users`	• `address1` • `city` • `country` • `email` • `firstName` • `functionalArea` • `id` • `industry` • `isAdminUser` • `isLinkedUp`	• `String` • `String` • `String` • `String` • `String` • `String` • `Integer` • `String` • `Boolean` • `Boolean`

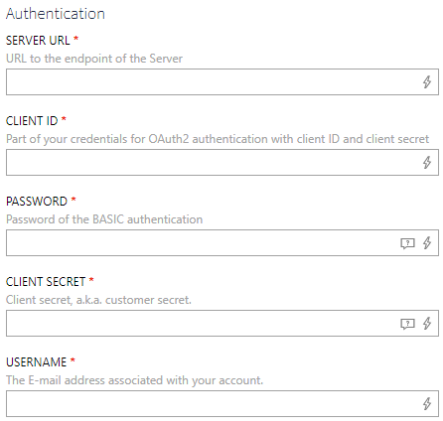
Table	Column	Type
	• isPlaceholderUser • lastName • organization • postalCode • state • status	• Boolean • String • String • String • String • String
workspaces	• description • host • id • industryCodeValue • name • phase • securityLevel • type • version • workspaceName	• String • String • Integer • String • String • String • Integer • String • Integer • String
workspace_users	• address1 • address2 • city • country • createdOn • emailId • firstAccessed • firstName • functionalArea • id • industry • isPlaceholderUser • lastAccessedOn • lastModifiedOn • lastName • numberAccessed • organization • postalCode • roleType • state • status • tile • userId • version	• String • String • String • String • Integer • String • String • String • String • Integer • String • Boolean • String • Integer • String • String • String • String • String • String • String • String • Integer • String

Intralinks Via

This connector is used to connect to the Intralinks VIA API. It collects users, business groups, and workspaces.

Prerequisites

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the password which is part of the BASIC authentication into the **PASSWORD** field.
- Enter the Client Secret a.k.a. the Customer Secret into the **CLIENT SECRET** field.
- Enter the email address that is associated with the account into the **USERNAME** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter should contain the client ID which is associated with the account and together with the client secret part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	string
Default Value	n/a
Example Values	

Password

This parameter contains the password that is used for BASIC authentication. If the `client_credentials` grant type is used, a password is needed.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client Secret

This parameter should contain the client secret (also called customer secret) associated with the account.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute a successful HTTP request to the Intralinks Platform, a valid client secret is necessary.

Username

This parameter contains the e-mail address that is associated with the account.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameter

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical

Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v2/businessGroups`
Description:	BusinessGroup endpoint of the Intralinks Via REST API
Documentation:	n/a

Endpoint:	`{+serverUrl}/v2/businessGroups/{businessGroupId}/accounts`
Description:	Endpoint to retrieve the accounts of a BusinessGroup
Documentation:	n/a

Endpoint:	`{+serverUrl}/v2/workspaces`
Description:	Workspace endpoint of the Intralinks Via REST API
Documentation:	n/a

Endpoint:	`{+serverUrl}/v2/workspaces/{workspaceId}/users`
Description:	Endpoint to retrieve the users of a workspace
Documentation:	n/a

Tables

Table	Column	Type
business_groups	• id • name • orgName	• Integer • String • String
business_group_accounts	• accountOwnerEmail • accountOwnerFirstName • accountOwnerLastName • accountOwnerMobilePhone • accountOwnerPhone • accountOwnerUserId • businessGroupId • businessGroupName • createDate • isActivated • lastModifiedDate • status	• String • String • String • String • String • String • Integer • String • Integer • Boolean • Integer • String
workspaces	• createdOn • expirationDate • lastAccessedOn • lastModifiedOnMilliseconds • name • rootFolderId • status • workspaceId	• Integer • Integer • Integer • Integer • String • Integer • String • Integer
workspace_users	• email • firstName • id • lastAccessedOn • lastName • role	• String • String • String • Integer • String • String

Invision Injixo

Connects to the InVision Injixo V1 API and fetches the users and contracts of the account. The connector requires administrative privileges

Prerequisites

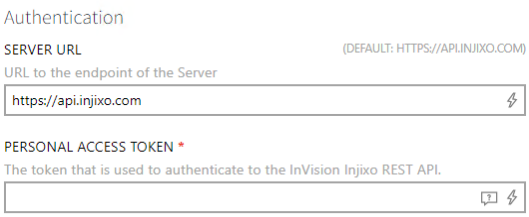
In order to use the connector a personal access token for the authentication with the injixo API is needed. To create the token execute the following steps.

> **Note:**
> This can only be done by a user with Admin access!

1. Open the user profile by clicking on the username on the start page.
2. Select the **Personal Access Tokens** menu item.
3. Click on the **Generate new token** button.
4. Enter a descriptive name for the token (for example: RayVentory Data Hub).
5. Click on the **Generate new token** button.
6. Copy the token to a secure location. It will only be displayed this once and if it is lost a new token has to be generated.
7. Click on the **Done** button to close the window.

> **Be aware:**
> If the account is deleted, locked or if the Admin access of the user is being revoked, all tokens created for the account are immediately invalidated.

Connector Setup



- Enter the token that is used to authenticate to the InVision Injixo REST API into the **PERSONAL ACCESS TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`https://api.injixo.com`
Example Values	`https://api.injixo.com`

Personal Access Token

This parameter contains the token that is used to authenticate to the InVision Injixo REST API.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The token can only be generated by Admin users. The process of generating a token is described in the official documentation. Generate a new token for the connector, so access can be revoked on a per-app-basis in the future.

Task Parameters

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`35000`
Example Values	`35000, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/employees`
Description:	Get all employees.
Documentation::	https://api.injixo.com/#operation/getV1Employees

Endpoint:	`{+serverUrl}/v1/contracts`
Description:	Get all contracts.
Documentation:	https://api.injixo.com/#operation/getV1Contracts

Tables

Table	Column	Type
employee	• automatedShiftAssignment • birthDate • birthPlace • color • currentIdentification • deleted • employeeId • firstName • lastName • personnelNumber • schedulePosition	• Boolean • String • String • Integer • String • Boolean • Integer • String • String • String • Integer
contracts	• color • contractId • deleted • employmentType • name • nameShort • workingDaysPerWeek	• Integer • Integer • Boolean • String • String • String • Integer

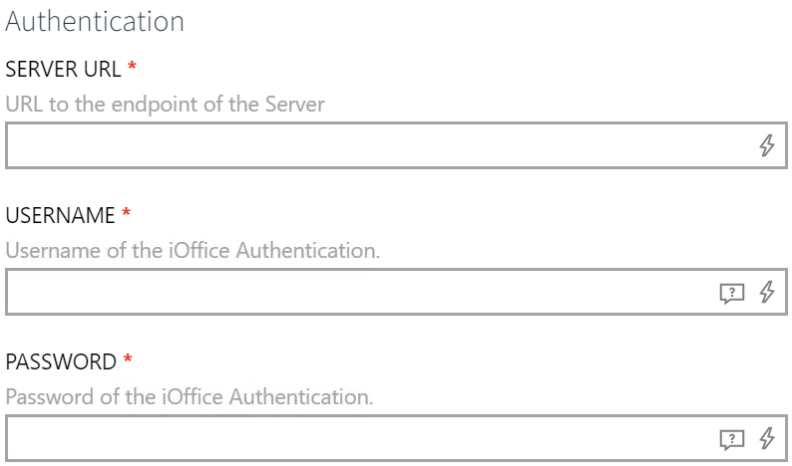
iOffice

Connects to the iOffice REST API to retrieve user and room data.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL of the server that is used for iOffice into the **SERVER URL** field.
- Enter the username of the user that will be used for authentication into the **USERNAME** field.
- Enter the password of the user that will be used for authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Username

This parameter should contain the username of the iOffice authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The authentication is achieved with a username/password pair as described in the official

documentation.

Password

This parameter should contain the password of the iOffice authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The authentication is achieved with a username/password pair as described in the official documentation.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/external/api/rest/v2/users`
Description:	List all users.
Documentation:	https://ioffice.github.io/api/#user-user-collection-get

Endpoint:	`{+serverUrl}external/api/rest/v2/rooms`
Description:	List all rooms.
Documentation:	https://ioffice.github.io/api/#room-room-collection-get

Tables

Table	Column	Type
users	• color • dateCreated • dateUpdated • email • firstName • floorWarden • id • lastName • name • specialNeeds • userName • userTypeDateCreated • userTypeId • userTypeName	• String • Integer • Integer • String • String • Boolean • Integer • String • String • Boolean • String • Integer • Integer • String
rooms	• id • name • reservable	• Integer • String • Boolean

iQuate iQsonar

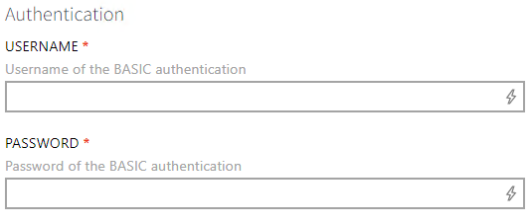
Connects to the iQuate iQSonar SE REST API and fetches devices, device relations, operating systems, applications, services, etc.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup

- In the **Configuration** tab, enter the URL to the iQuate iQSonar instance into the **SERVER URL** field.



- In the **Connection** tab, enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Also enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Page Skip

This parameter defines if pages are skipped before the whole paging fails.

Technical Name	`max_skip`
Category	Functional
Type	Integer
Default Value	`0`
Example Values	`0, 3`

Be aware:
Setting this value to something other than zero might lead to incomplete or inconsistent data.

Server URL

This parameter contains the URL to the iQuate iQSonar instance.

Technical Name	`server_url`
Category	Functional
Type	String

Default Value	n/a
Example Values	http://somehost.iquate.com/api/v1

Last Seen Days Filter

This parameter defines if devices that have not been updated for the given number of days are ignored. If set to `null`, no devices will be ignored.

Technical Name	`last_seen_days`
Category	Functional
Type	Integer `null`
Default Value	`null`
Example Values	`null, 90`

Fetch Service

This parameter is used to enable or disable the download of services.

Technical Name	`fetch_services`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

The service information is always fetched, but contains a lot of data. If this parameter is `false`, then this data is not stored. If HDD space is limited, this can save some space.

Fetch Installed Software

This parameter is used to enable or disable the download of installed software.

Technical Name	`fetch_installed_software`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Fetching installed software is slow, since it requires additional API calls. If this parameter is `false`, installed software is not fetched.

Fetch Application

This parameter is used to enable or disable the download of applications.

Technical Name	`fetch_applications`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Fetching applications is slow, since it requires additional API calls. If this parameter is `false`, installed software is not fetched.

Fetch Oracle Specifics

This parameter is used to enable or disable the download of Oracle specific data. This parameter is ignored when applications are disabled.

Technical Name	`fetch_oracle_specifics`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Limit Concurrent Connections

This parameter defines the maximum number of concurrent connections to the API. It is naturally limited by the number of threads.

Technical Name	`max_connections`
Category	Functional
Type	Integer
Default Value	`1000`
Example Values	`1000`

Testrun

This parameter can be used in order to fetch only the data of the first n devices. In this case n is defined by the number of devices given in the parameter.

Technical Name	`test_run`
Category	Functional
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10`

Authentication

Username

This parameter contains part of the credentials used for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains part of the credentials used for the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`10000`
Example Values	`10000, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`180000`
Example Values	`180000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
devices	• bios • coreCount • cpuChipCount • cpuCoreCount • cpuSpeed • deviceKey • deviceManufacturer • deviceModel • deviceName • fqdn • importCpuTypeId • importDataSourceId • importDeviceTypeId • importId • importLocationId • importLocationId • importOrgLevel2Id • importUserId • installationDate • inventoryDate • ipAddress • isHyperthreaded • macAddress • operatingSystemId • ram • remarks • serialNumber • threadsPerCore • virtualizationType	• String • Integer • Integer • Integer • Integer • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • Boolean • String • String • Integer • String • String • Integer • String
device_relations	• importDataSourceId • importDeviceRelTypeId • importFromDeviceId • importId • importToDeviceId • remarks	• String • String • String • String • String • String
generic_os	• description • genericKey • importDataSourceId • importDeviceId • importId • product • productVersion	• String • String • String • String • String • String • String

Table	Column	Type
	• publisher • quantity	• String • Integer
arp	• description • importDataSourceId • importDeviceId • importId • installationDate • product • productVersion • publisher	• String • String • String • String • String • String • String • String
is	• description • genericKey • importDataSourceId • importDeviceId • importId • product • productVersion • publisher • quantity	• String • String • String • String • String • String • String • String • Integer
generic_process	• description • genericKey • importDataSourceId • importDeviceId • importId • product • productVersion • publisher • quantity	• String • String • String • String • String • String • String • String • Integer
generic_applications	• description • genericKey • importDataSourceId • importDeviceId • importId • instanceName • lastUsage • product • productVersion • publisher • quantity	• String • String • String • String • String • String • String • String • String • String • Integer
users	• firstName • importDataSourceId • importId • importLevel2Id • importUserStatusId • isActive	• String • String • String • String • String • String

Table	Column	Type
	• isStUser • lastName • login	• String • String • String
accounts	• account • accountName • importDataSourceId • importId • importUserId	• String • String • String • String • String
db_usages	• description • genericKey • importAccountId • importDataSourceId • importId • product • productVersion • publisher • quantity	• String • String • String • String • String • String • String • String • String

Jama Software

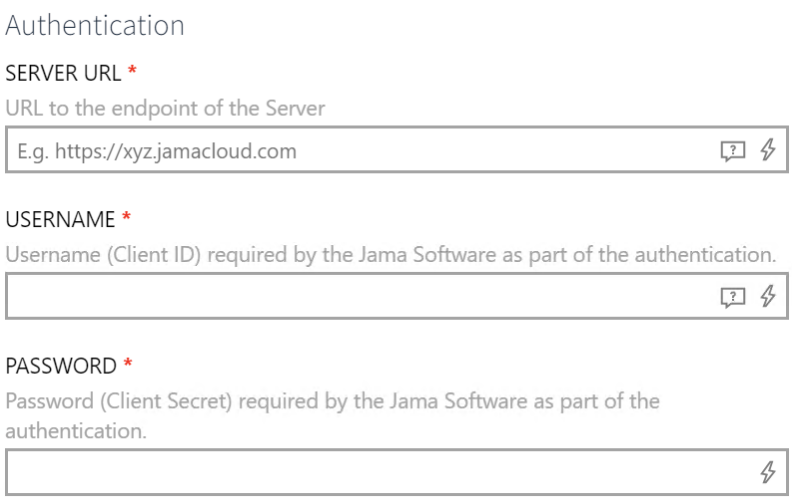
Connects to the Jama Software REST API and fetches users.

Prerequisites

In order to use the connector, RayVentory Data Hub first needs to be registered within Jamacloud. In order to register RayVentory Data Hub execute the following steps:

- Log in to Jama and go to the **User Profile** page.
- Select **Set API Credentials**.
- Enter a descriptive name for the connector into the Name field and click on the **Create API Credentials** button.
- Copy the **Client Secret** to a secure location. It will not be possible to access the secret again and if it get lost, a new pair of API credentials has to be created.

Connector Setup



- Enter the URL of the server that is used for Jama into the **SERVER URL** field.
- Enter the Client ID that has been created as part of the client credentials pair into the **USERNAME** field.
- Enter the Client Secret that has been created as part of the client credentials pair into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`https://xyz.jamacloud.com`

Username

This parameter should contain the username (Client ID) required by the Jama Software as part of the authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

To get the necessary credentials Username (Client ID) and Password (Client Secret), the app has to be registered as described in the official documentation.

Password

This parameter should contain the password (Client Secret) required by the Jama Software as part of the authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`50`
Example Values	`50`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/rest/oauth/token
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://dev.jamasoftware.com/api/#auth

Endpoint:	{+serverUrl}/rest/v1/users
Description:	List users. It requires the Access User Management API and Access Users permissions.
Documentation:	https://rest.jamasoftware.com/#endpoint_users

Tables

Table	Column	Type
users	• active • authenticationType • avaterUrl • email • firstName • id • lastName • licenseType • location • phone • title • username	• Boolean • String • String • String • String • Integer • String • String • String • String • String • String

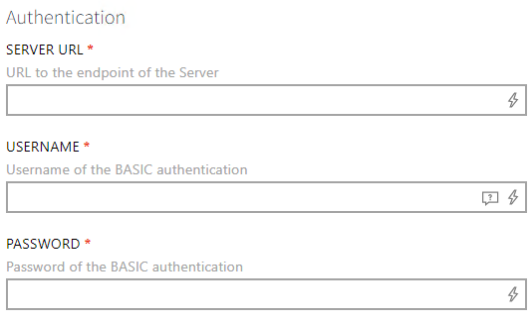
Jamf

This connector collects device and ARP information from the Jamf Classic API. The authentication is done via BASIC authentication. The user must be granted read access for the endpoints `JSSResource/computer` and `JSSResource/computers/id`.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username that is used for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The authentication with the API endpoint is done via Basic authentication. The user must have read access to the endpoints 'JSSResource/computers' and 'JSSResource/computers/id'.

Password

This parameter contains the password that is used for the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
devices	• activeDirectoryStatus • assetTag • availableRamSlots • barcode1 • barcode2 • deviceName • hardware • initialEntryDate • ipAddress • isLeased • isPurchased • isRemoteManaged • jamfVersion • lastContactTime • lastEnrolledDate • lastReportedIp • locationEmail • locationUsername • macAddress • mdmCapable • model • modelIdentifier • numberCores • numberProcessors • osBuild • osName • osVersion • platform • processorArchitecture • processorSpeedMhz • processorType • purchasingAccount • reportDate • serialNumber • servicePack • storageDriverCapacityMb • storageModel • storageRevision • storageSerialNumber • totalRamMb • udid • vendor	• String • Stirng • String

Table	Column	Type
arp	• deviceName • name • path • version	• String • String • String • String

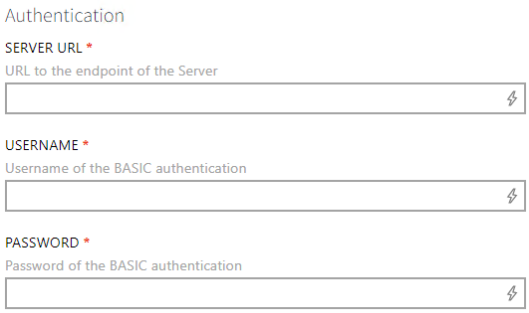
Jamf Pro

Connects to the Jamf Pro V1 API. It fetches computer-inventory, mobile devices and users, and writes devices, applications, mobile devices, and users.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`2000`
Example Values	`2000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/uapi/v1/auth/token
Description:	Authenticate with the API and returns an access token in exchange for a valid credentials.
Documentation:	https://www.jamf.com/developers/apis/jamf-pro/overview/#authentication

Endpoint:	{+serverUrl}/uapi/v1/auth/keep-alive
Description:	Authenticate with the API and returns a new access token in exchange for an access token.
Documentation:	https://www.jamf.com/developers/apis/jamf-pro/overview/

	#authentication

Endpoint:	`{+serverUrl}/uapi/v1/computers-inventory`
Description:	Fetch a Computer Inventory for paginated list of computers.
Documentation:	https://www.jamf.com/developers/apis/jamf-pro/reference/#/computer-inventory/get_v1_computers_inventory

Endpoint:	`{+serverUrl}/uapi/v2/mobile-devices`
Description:	Fetch Mobile Device objects.
Documentation:	https://www.jamf.com/developers/apis/jamf-pro/reference/#/mobile-devices/get_v2_mobile_devices

Endpoint:	`{+serverUrl}/uapi/user`
Description:	Fetch all Jamf Pro user accounts.
Documentation:	https://www.jamf.com/developers/apis/jamf-pro/reference/#/user-session-preview/get_user

Tables

Table	Column	Type
`devices`	• `activeDirectoryStatus` • `altMacAddress` • `altNetworkAdapterType` • `assetTag` • `barcode1` • `barcode2` • `batteryCapacityPercent` • `bleCapable` • `bootDriveAvailableSpaceMegabytes` • `bootRom` • `build` • `busSpeedMhz` • `cacheSizeKilobytes` • `coreCount` • `deviceName` • `distributionPoint` • `emailAddress` • `enrolledViaAutomatedDeviceEnrollment` • `enrollmentMethod`	• `String` • `String` • `String` • `String` • `String` • `String` • `Integer` • `Boolean` • `String` • `String` • `String` • `Integer` • `Integer` • `Integer` • `String` • `String` • `String` • `Boolean` • `String`

Table	Column	Type
	• fileVault2Status • id • initialEntryDate • itunesStoreAccountActive • jamfBinaryVersion • lastCloudBackupDate • lastContactTime • lastEnrolledDate • lastIpAddress • lastReportedIp • leaseDate • leased • macAddress • make • managed • mdmProfileExpiration • model • modelIdentifier • networkAdapterType • nicSpeed • openRamSlots • operatingSystemName • opticalDrive • platform • processorArchitecture • processorCount • processorSpeedMhz • processorType • pruchased • purchasingAccount • reportDate • serialNumber • site • smcVersion • storageModel • storageRevision • storageSerialNumber • supervised • supportsIosAppInstalls • totalRamMegabytes • udid • userApprovedMdm • username • vendor • version	• String • String • String • Boolean • String • String • String • String • String • String • String • Boolean • String • String • Boolean • String • String • String • String • String • Integer • String • String • String • String • Integer • String • String • Boolean • String • String • String • String • String • String • String • String • Boolean • Boolean • Integer • String • Boolean • String • String • String
arp	• deviceId • deviceName • name	• String • String • String

Table	Column	Type
	• path • version	• String • String
mobile_devices	• id • managementId • model • modelIdentifier • name • serialNumber • type • udid • username • wifiMacAddress	• String • String • String • String • String • String • String • String • String • String
users	• accessLevel • dateFormat • email • groupIds • id • isDisableRelativeDates • language • privilegeSet • realName • region • timezone • username	• String • String • String • String • Integer • Boolean • String • String • String • String • String • String

JetBrains Hub

This connector is used to connect to the JetBrains Hub API and fetches users (with licenses) and metrics.

Prerequisites

In order to use the connector it is necessary to generate a Permanent API Access Token. It is possible to create a permanent token for a Hub account in the **Authentication** tab.

Connector Setup

- In the **Configuration** tab, enter the URL to the JetBrains Hub into the **SERVER URL** field.

- In the **Connection** tab, enter the token that is used to authenticate to the Jetbrains Hub REST API into the **PERMANENT API ACCESS TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Server URL

This parameter contains the URL to the JetBrains Hub.

Technical Name	`server_url`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Authentication

Permanent API Access Token

This parameter contains the token that is used to authenticate to the JetBrains Hub REST API.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The token can only be generated by Admin users. The process of generating a token is described in the official documentation. Generate a new token for the connector so you can revoke access on a per-app-basis in the future.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay increases starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/hub/api/rest/users`
Description:	Get all users.
Documentation:	https://www.jetbrains.com/help/youtrack/devportal/HUB-REST-API_Users_Get-All-Users.html

Endpoint:	`{+serverUrl}/hub/api/rest/metrics`
Description:	Get metrics.
Documentation:	https://www.jetbrains.com/help/youtrack/devportal/HUB-REST-API_Metrics_Get-All-Metrics.html

Tables

Table	Column	Type
users	• creationTime • email • id • lastAccessTime • name • type	• String • String • String • String • String • String
user_license	• buildNumber • expirationDate • freeUpdateEnd • hosted • licenseKey • licenseName • licenseType • majorVersion • minorVersion • product • userCount • userId	• Integer • String • String • Boolean • String • String • Integer • Integer • Integer • Integer • Integer • String
metrics	• availableProcessors • databaseBackgroundThreadsCount • databaseBlobsSize • databaseDataSize • databaseEntityIterableCacheHitRate • databaseEntityIterableCacheSize • databaseLocation • databasePendingJobsCount • databaseTextIndexSize • databaseTransactionsCount • databaseTransactionsPerSecond • id • logsfolder • memoryAllocated • memoryAvailable • memoryUsed • serverStartTime	• Integer • Integer • Integer • Integer • Number • Integer • String • Integer • Integer • Integer • Number • String • String • Integer • Integer • Integer • Integer

Knowbe4 Security Awareness Training

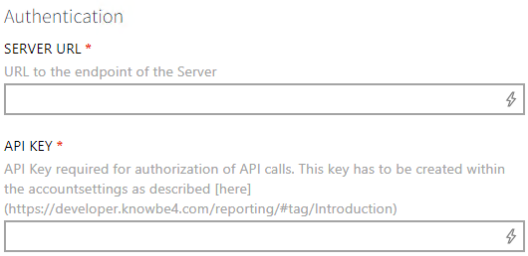
Connects to the Knowbe4 Security Awareness Training REST API and retrieves user and account data.

Prerequisites

In order to submit API requests it will be necessary to use the correct base URL depending on where the target KnowBe4 account is located. If the account is located on the US server must use the `https://us.api.knowbe4.com` while accounts located on the EU server must use `https://eu.api.knowbe4.com`.

The account will be authenticate by including a secret API key in the request. The key can be generated in the **API** section of the **KnowBe4 Account Settings**.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key that is required for the authorization of API calls into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

API Key

This parameter contains the API Key that is required for the authorization of API calls.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

This key has to be created within the account setting as here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`

Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/users/`
Description:	User endpoint of the Knowbe4 SAT REST API, retrieves a list of users.
Documentation:	https://developer.knowbe4.com/reporting/#tag/Users

Endpoint:	`{+serverUrl}/v1/account/`
Description:	Account endpoint of the Knowbe4 SAT REST API, retrieves information about the current account.
Documentation:	https://developer.knowbe4.com/reporting/#tag/Account

Tables

Table	Column	Type
users	• adiGuid • adiManageable • aliases • archivedAt • comment • currentRiskScore • department • division • email • employeeNumber • employeeStartDate • extension • firstName • groups • id • jobTitle • joinedOn • language • lastName • lastSignIn • location • managerEmail • managerName • mobilePhoneNumber • organization • phishPronePercentage • phoneNumber • status	• String • Boolean • String • String • String • Number • String • String • String • String • String • String • String • String • Integer • String • String • String • String • String • String • String • String • String • String • Number • String • String
account	• adminIds • currentRiskScore • domains • name • numberOfSeats • subscriptionEndDate • subscriptionLevel • type	• String • Number • String • String • Integer • String • String • String

logz.lo

This connector is used to connect to the the logz.io REST API. It collects user data.

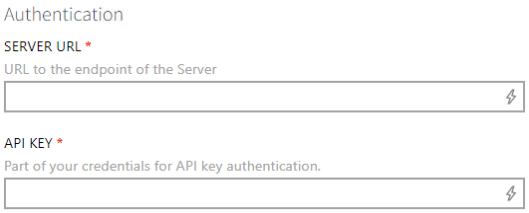
> **Note:**
> The API endpoint depends on the account region which has been defined during the sign-up process.

Prerequisites

In order to access the Logz.io API it is necessary to create an API token. API tokens are account-specific.

API tokens can be managed by logging into the relevant account on the Logz.io platform. Click on the gear in the top-right menu and select **Tools > Manage tokens > API tokens**.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field. The URL depends on the region where the account is hosted. To find out the region of the account select **Settings > General** from the top menu. The two-letter region code is at the start of the region designation that will be shown there.
- Enter the API Key which is part of the credentials for the API key authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222

the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Allowed Types	String
Default Value	`"https://app-<region>.logz.io"`
Example Values	`"https://app-<region>.logz.io"`

Information on the account region can be found here.

API Key

This parameter contains an API key which is part of the credentials that are used for the API key authentication.

Technical Name	`api_key`
Category	Authentication
Allowed Types	String
Default Value	n/a
Example Values	n/a

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Allowed Types	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Allowed Types	Integer

	Null
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Allowed Types	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the collector before failing the whole collector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tabels

Table	Column	Type
`users`	• `accountId` • `active` • `fullName` • `id` • `roles` • `username`	• `Integer` • `Boolean` • `String` • `Integer` • `String` • `String`

Malwarebytes Nebula

Connects to the Malwarebytes Nebula REST API. It connects to the user and account endpoints to fetch users, licensed products, and licensed product machine counts.

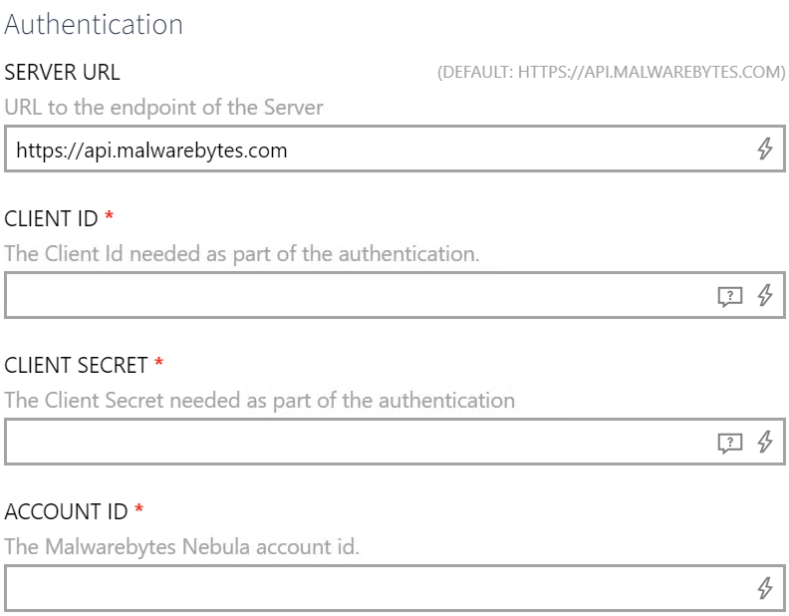
Prerequisites

In order to get the Cloud Console Account Id log in to Malwarebytes Nebula. It is now possible to copy the Cloud Console Account Id from the address bar of the browser. The Cloud Console Account Id is the string of characters and dashes that can found between `malwarebytes.com/` and `/dashboard`.

To get the Cloud Console Client Id and the Cloud Console Client Secret, execute the following steps.

1. Go to https://cloud.malwarebytes.com/auth/credentials.
2. Click on the **Add** button and provide a descriptive name for the application.
3. Select the required access and click on the **Save** button.
4. Save the Client ID and the Client Secret to a secure location.
5. Click on the **OK** button to finish the creation of the application.

Connector Setup



- By default, the **SERVER URL** field is set to `https://api.malwarebytes.com`.
- Enter the Client ID that is needed as part of the authentication in the **CLIENT ID** field.
- Enter the Client Secret that is needed as part of the authentication in the **CLIENT SECRET FIELD**.
- Enter the Cloud Console Account ID in the **ACCOUNT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`https://api.malwarebytes.com`
Example Values	`https://api.malwarebytes.com`

Client ID

This parameter contains the Client ID needed as part of the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Client ID and the Client Secret are generated during the application setup. The whole process is described here.

Client Secret

This parameter contains the Client Secret needed as part of the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Client ID and the Client Secret are generated during the application setup. The whole process is described here.

Account ID

This parameter contains the Malwarebytes Nebula account id.

Technical Name	`account_id`
Category	Authentication
Type	String
Default Value	n/a

Example Values	{empty}

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/oauth2/token`
Description:	Authenticate with the API and returns an access token in exchange for valid credentials.
Documentation:	https://api.malwarebytes.com/nebula/v1/docs#operation/api.oauth2.token

Endpoint:	`{+serverUrl}/nebula/v1/users`
Description:	Get Malwarebytes Nebula users.
Documentation:	https://api.malwarebytes.com/nebula/v1/docs#operation/api

Endpoint:	`{+serverUrl}/nebula/v1/account`
Description:	Get details of the current account. The licensed products and licensed product machine counts will be extracted from it.
Documentation:	https://api.malwarebytes.com/nebula/v1/docs#operation/api.nebula.get.account

Tables

Table	Column	Type
product_license	• catalogCode • comboCode • irRemediationsCount • licenseExpireAt • licenseKey • licenseStatus • licenseTermType • licensedIrRemediations • licensedProduct • licensedSeats	• String • String • Integer • String • String • String • String • Integer • String • Integer
licensed_produc	• licenseKey • licensedProduct • machineCount • osPlatform • osType • productType	• String • String • Integer • String • String • String
users	• accountId • allGroupsAccess • displayName • email • groupIds • id • impersonationAuthorizedUntil • lastLoginAt • otpEnabled • role • unconfirmedEmail	• String • Boolean • String • String • String • String • String • String • Boolean • String • String

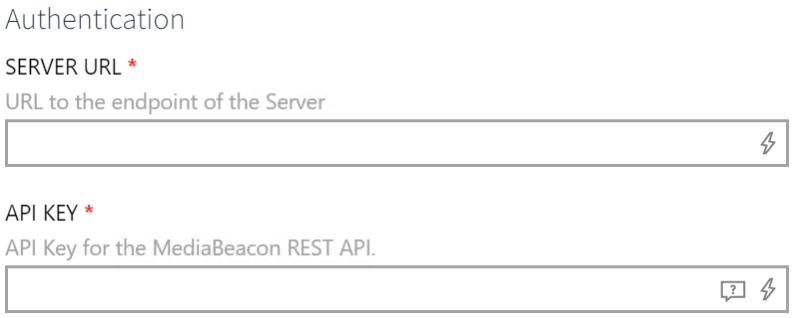
Media Beacon

Connects to the Media Beacon REST API to retrieve user data.

Prerequisites

In order to use the connector it is necessary to first create an API Key inside the Media Beacon environment. This API Key can than be used with the connector in order to authenticate with the Media Beacon REST API.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key that will be used for the authentication with the Media Beacon REST API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

API Key

This parameter contains the API Key for the MediaBeacon REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The API Key can be obtained as described in the chapter Authentication in the official

documentation.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/wf/restapi/v2/admin/userManager`
Description:	Get all users.

Documentation:	https://page.esko.com/MKT-Web-Files/Mediabeacon/api-docs-21.11/Rest-v2/symbols/UserManager_GET.html

Tables

Table	Column	Type
users	• address1 • address2 • city • company • country • dept • email • ext • firstName • lastName • middleName • phone • position • primaryGroup • state • status • type • userId • username • zip	• String • String • String • String • String • String • String • String • String • String • String • String • String • Integer • String • String • String • Integer • String • String

Microsoft 365

This connector is used to connect to the Microsoft Graph beta endpoint API. It fetches user info, user activity data, user activation data, product and license data, pstn (optional), and app usage data (optional).

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

5. When finished, select **Register**.

Avoid Encrypted Data in Office Reports

> **WARNING**
> In a couple of reports for Microsoft Office 365 instead of actual user names anonymous data will be shown!

In order to show the data again, the following settings must be changed in the Microsoft 365 admin center.

> **Note:**
> The changes must be done by a Microsoft 365 tenant adminstrator!

1. Go to the **Microsoft 365 admin center**.

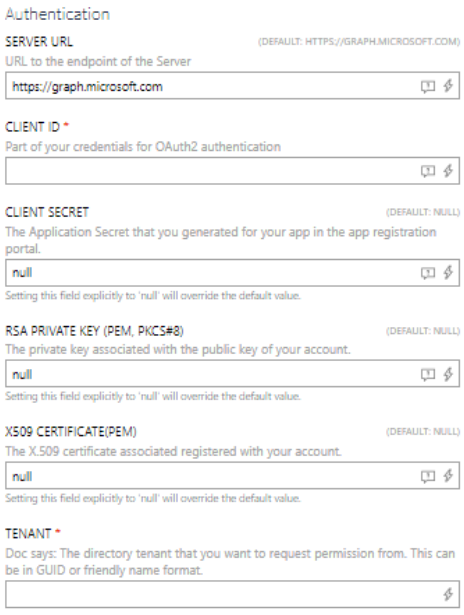
2. Go to **Settings** > **Org settings** > **Reports**.
3. Uncheck the **In all reports, display de-identified names for users, groups, and sites** checkbox.

API Permissions

In order to use this connector, the following permissions are required:

Permission	Necessity	Description
`AuditLog.Read.All`	optional	Read all audit log data. Extraction of SignIn data to get the last usage activity per user. Disabled by default.
`CallRecord-PstnCalls.Read.All`	optional	Read PSTN and direct routing call log data. Extraction of Teams PSTN usage. Disabled by default.
`Directory.Read.All`	mandatory	Read directory data in the directory of the organization. Users, groups, and devices will be extracted.
`Reports.Read.All`	mandatory	Read all usage reports. Extracted reports are service usage reports for M365.
`User.Read.All`	mandatory	Read all user profiles. Basic user data (name, mail, user, principal name, etc.) and subscription details will be extracted.

Connector Setup



- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant that information should be requested from into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Redirect URL

This parameter is deprecated and is never used! Therefore it can be ignored.

Technical Name	`redirect_url`
Category	Functional
Type	String

Default Value	n/a
Example Values	

Fetch Sign-ins

This parameter is deprectated! This parameter is used to activate or deactivate the collection of sign-ins.

Technical Name	`fetch_sign_ins`
Category	Functional
Type	Boolean
Default Value	`false`
Example Values	`false`

Sign-ins Since

This parameter is deprectated! This parameter is used to define a date. All sign-ins since the defined date will than be collected. This parameter uses the ISO 8601 format.

Technical Name	`sign_ins_since`
Category	Functional
Type	String
Default Value	`PT24h`
Example Values	`PT24h`

Since the sign-ins can take a long time, fetching less sign-ins can considerable speed up the overall execution time.

Sign-ins Request Interval

This parameter is deprectated! This parameter is used to define the duration of the interval per request. This parameter uses the ISO 8601 format.

Technical Name	`sign_ins_request_interval`
Category	Functional
Type	String
Default Value	`PT1h`

Example Values	`PT1h`

to speed up download of the sign-ins, the requests are parallelized. For example: If Sign-ins Since is 'PT10h', and Sign-ins Request Interval is 'PT2h', then there will be five parallel requests. A shorter interval always means more parallel requests, which means the complete time will be reduced, unless the high parallelization leads to the API's refusal to answer the requests. Thus, the optimal value for this parameter is unknown.

Fetch Conferencing Data (PSTN)

This parameter is used to activate or deactivate the collection of conferencing data.

Technical Name	`fetch_pstn`
Category	Functional
Allowed Types	Boolean
Default Value	`false`
Example Values	`false`

Fetching conferencing data can take a long time.

Conferencing Data Since

This parameter is used to define a date. All conferencing data since the defined date will than be collected. This parameter uses the ISO 8601 format.

Technical Name	`pstn_since`
Category	Function
Allowed Types	String
Default Value	`PT24h`
Example Values	`PT24h`

Be aware:
Reducing this value can considerably speed up the total execution time of the collector.

Conferencing Data Request Interval

This parameter defines the duration of the interval per request using the ISO 8601 format.

Technical Name	`pstn_request_interval`
Category	Functional
Type	String
Default Value	`PT1h`
Example Values	`PT1h`

In order to speed up the download of the conferencing data, the requests are parallelized.

Example: If Conference Data since is set to PT12h and Conferencing Data Request Interval is set to PT3h, there will be 4 parallel requests. A shorter interval always means more parallel requests and will therefore lead to a reduced overall time unless the API refuses to answer the request due to the high parallelization. The optimized value for this parameter is unknown.

Fetch App Usage

This parameter is used to activate or deactivate the collection of app usage data.

Technical Name	`fetch_app_usage`
Category	Functional
Type	Boolean
Default Value	`false`
Example Values	`false`

Fetch OneDrive Usage

This parameter is used to activate or deactivate the fetching of OneDrive usage data.

Technical Name	`fetch_one_drive_usage`
Category	Functional
Type	Boolean

Default Value	`false`
Example Values	`false`

Fetching OneDrive usage data can take a long time.

OneDrive Usage since

This parameter is used to define the timeframe for which to fetch OneDrive usage data.

Technical Name	`one_drive_usage_since`
Category	Functional
Type	String
Default Value	`P30D`
Example Values	`P30D, P7D, P90D, P180D`

Reducing this duration can considerably speed up the total execution time of the connector. The duration should be one of four presented as examples which are represented in the 'PnD' ISO: https://docs.microsoft.com/en-us/graph/api/reportroot-getonedriveusageaccountdetail?view=graph-rest-beta.

Additional User Fields

The API allows custom fields for users. Set the additional fields here. They are then written to a separate file.

Technical Name	`additional_user_fields`
Category	Functional
Type	Array
Default Value	`{empty}`
Example Values	`extension_123456789abcd_shoesize, accountEnabled`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`"https://graph.microsoft.com"`
Example Values	`"https://graph.microsoft.com"`

- Documentation on beta endpoint reference

Client ID

This parameter should contain part of the credentials used for the OAuth2 authentication with client ID and client secret.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. the response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

Client Secret

This parameter should contain the Application Secret that has been generated inside of the app in the app registration portal. Setting this field to `null` will override the default value.

Technical Name	`client_secret`
Category	Authentication

Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a client secret OR a private key AND a certificate. In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account. Setting this field to `null` will override the default value.

Technical Name	`private_key`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

Instead of authentication with a Client Secret, one can use a certificate and private key. According to the official documentation the certificate can be used wherever a client secret is used, but your experiences might vary. The key pair (private key and certificate) must be generated on a trusted machine with openssl. The key pair an be generated so:

- `openssl req -x509`
  `-newkey rsa:4096`
  `-keyout key.pem`
  `-out cert.pem`
  `-days 365 -nodes`

The meta information (CN, Issuer, etc.) is technically not required, but one should set some reasonable values nevertheless. Set this parameter to the content of the file `key.pem`. Keep the key secret. Do NOT share it with anybody. Whoever has access to this key will be able to impersonate the application. Do NOT reuse keys for different application. Always generate a new keypair for every application.

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account. Setting this field to `null` will override the default value.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file cert.pem. On the Azure Portal, the certificate must be registered for the application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file cert.pem). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant from which permissions are being requested. This can be in GUID or in a user friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`999`
Example Values	`999`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter limits the number of requests issued in the time interval set by the parameter Rate Limiter Duration. It ensures, that the number of requests issued during the time period specified in the Rate Limiter Duration will not exceed the specified number. This can be used to avoid a "too many requests" error.

Technical Name	`rate_limiter_num_requests`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5, 20`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a globale maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Rate Limiter Duration

This parameter is used to set the time interval during which a number of requests that may not exceed the number of requests defined by the Rate Limiter Number parameter.

Technical Name	`rater_limiter_duration`
Category	Technical
Type	String
Default Value	`PT1S`
Example Values	`PT1S, PT1M, PT2H`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a global maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 1000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical

Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of

rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token`
Description:	Authenticate with the API and returns a token in exchange for valid credentials
Documentation:	https://docs.microsoft.com/graph/auth-v2-services#4-get-an-access-token

Endpoint:	`{+serverUrl}/beta/users`
Description:	Get all users
Permissions:	`User.Read.All`
Extracted Fields:	`userPrincipalName`, `displayName`, `deletedDateTime`, `employeeId`, `givenName`, `mail`, `surname`, `onPermisesUserPrincipalName`, `userType`, `assignedLicenses`, `assignedPlans`
Documentation:	https://docs.microsoft.com/graph/api/user-list?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/reports/getOffice365ActiveUserDetail(period='D30')`
Description:	Get the active user details from the last 30 days
Permissions:	`Reports.Read.All`
Extracted Fields:	`userPrincipalName`, `displayName`, `reportRefreshDate`, `isDeleted`, `deletedDate`, `hasExchangeLicense`, `hasOneDriveLicense`, `hasSharePointLicense`, `hasSkypeForBusinessLicense`, `hasYammerLicense`, `hasTeamsLicense`, `exchangeLastActivityDate`, `oneDriveLastActivityDate`, `sharePointLastActivityDate`, `teamsLastActivityDate`, `exchangeLicenseAssignDate`, `oneDriveLicenseAssignDate`, `sharePointLicenseAssignDate`, `skypeForBusinessLicenseAssignDate`, `yammerLicenseAssignDate`, `teamsLicenseAssignDate`, `assignedProducts`
Documentation:	https://docs.microsoft.com/graph/api/reportroot-getoffice365activeuserdetail?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/reports/getOffice365ActivationsUserDetail`
Description:	Get the activations user details
Permissions:	`Reports.Read.All`
Extracted Fields:	`userPrincipalName`, `reportRefreshDate`, `displayName`, `userActivationCounts`
Documentation:	https://docs.microsoft.com/graph/api/reportroot-getoffice365activationsuserdetail?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/subscribedSkus`
Description:	Get the Subscribed Skus
Permissions:	`Directory.Read.All`
Extracted Fields:	`id`, `skuId`, `skuPartNumber`, `appliesTo`, `capabilityStatus`, `consumedUnits`, `prepaidUnits`, `LicenseUnitsDetail`, `servicePlans`
Documentation:	https://docs.microsoft.com/graph/api/resources/subscribedsku?view=graph-rest-beta

Endpoint:	`{+serverUrl}/beta/auditLogs/signIns`
Description:	deprectated - use the Microssoft M365 SignIns connector instead
Permissions:	`AuditLog.Read.All`
Extracted Fields:	`createdDateTime`, `userDisplayName`, `userPrincipalName`, `userId`, `appId`, `appDisplayName`, `status`
Documentation:	https://docs.microsoft.com/graph/api/signin-list?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/reports/getM365AppUserDetail(period='D30')/content`
Description:	Get the app usages
Permissions:	`Reports.Read.All`
Extracted Fields:	`reportRefreshDate`, `userPrincipalName`, `lastActivationDate`, `lastActivityDate`, `details`
Documentation:	https://docs.microsoft.com/graph/api/reportroot-getm365appuserdetail?view=graph-rest-beta&tabs=http#code-try-7

Endpoint:	`{+serverUrl}/beta/communications/callRecords /getPstnCalls(fromDateTime={from},toDateTime={to})`
Description:	Get the conferencing data (PSTNs)
Permissions:	`CallRecord-PstnCalls.Read.All`
Extracted Fields:	`id`, `callId`, `userId`, `userPrincipalName`, `userDisplayName`, `startDateTime`, `endDateTime`, `duration`, `callType`, `currency`, `calleeNumber`, `usageCountryCode`, `tenantCountryCode`, `connectionCharge`, `callerNumber`, `destinationContext`, `destinationName`, `conferenceId`, `licenseCapability`, `inventoryType`
Documentation:	https://docs.microsoft.com/graph/api/callrecords-callrecord-getpstncalls?view=graph-rest-beta

Endpoint:	`{+serverUrl}/beta/reports/getOneDriveUsageAccountDetail (period='{oneDriveUsageSince}')`
Description:	Get the OneDrive usage data
Documentation:	https://docs.microsoft.com/en-us/graph/api/reportroot-getonedriveusageaccountdetail?view=graph-rest-beta

Tables

Table	Column	Type
users	• deletedDateTime • displayName • employeeId • givenName • id • mail • onPremisesUserPrincipalName • surname • userPrincipalName • userType	• String • String • String • String • String • String • String • String • String • String
assigned_licenses_for_	• skuId • userId	• String • String
assigned_plans_for_use	• assignedDateTime • capabilityStatus • service • servicePlanId • userId	• String • String • String • String • String
user_activity	• deletedDate • displayName • exchangeLastActivityDate • exchangeLicenseAssignDate • hasExchangeLicense • hasOneDriveLicense • hasSharePointLicense • hasSkypeForBusinessLicense • hasTeamsLicense • hasYammerLicense • isDeleted • oneDriveLastActivityDate • oneDriveLicenseAssignDate • reportRefreshDate • sharePointLastActivityDate • sharePointLicenseAssignDate • skypeForBusinessLastActivity • skypeForBusinessLicenseAssig • teamsLastActivityDate • teamsLicenseAssignDate • userPrincipalName • yammerLastActivityDate • yammerLicenseAssignDate	• String • String • String • String • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • String • String • String • String • String • String • String • String • String • String
assigned_products_for_	• assignedProduct • userPrincipalName	• String • String
activations_user_detai	• displayName • reportRefreshDate	• String • String

Table	Column	Type
	• userPrincipalName	• String
user_activation_counts	• activatedOnSharedComputer • android • ios • lastActviatedDate • mac • productType • userPrincipalName • windows • windows10Mobile	• Boolean • Integer • Integer • String • Integer • String • String • Integer • Integer
subscribed_skus	• appliesTo • capabilityStatus • consumedUnits • id • skuId • skuPartNumber	• String • String • String • String • String • String
prepaid_units_for_subs	• enabled • subscribedSkuId • suspended • warning	• Integer • String • Integer • Integer
service_plans_for_subs	• appliesTo • provisioningStatus • servicePlanId • servicePlanName • subscribedSkuId	• String • String • String • String • String
sign_ins	• appDisplayName • appId • createdDateTime • userDisplayName • userId • userPrincipalName	• String • String • String • String • String • String
app_usage	• lastActivationDate • lastActivityDate • reportRefreshDate • userPrincipalName	• String • String • String • String
app_usage_details	• excel • excelMac • excelMobile • excelWeb • excelWindows • mac • mobile • oneNote • oneNoteMac	• Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean

Table	Column	Type
	• oneNoteMobile • oneNoteWeb • oneNoteWindows • outlook • outlookMac • outlookMobile • outlookWeb • outlookWindows • powerPoint • powerPointMac • powerPointMobile • powerPointWeb • powerPointWindows • reportPeriod • teams • teamsMac • teamsMobile • teamsWeb • teamsWindows • userPrincipalName • web • windows • word • wordMac • wordMobile • wordWeb • wordWindows	• Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Integer • Boolean • Boolean • Boolean • Boolean • Boolean • String • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean
pstn	• callId • callType • charge • conferenceId • connectionCharge • currency • duration • endDateTime • id • inventoryType • licenseCapability • startDateTime • tenantCountryCode • usageCountryCode • userId	• String • String • Integer • String • Integer • String • Integer • String • String • String • String • String • String • String • String
onedrive_usage	• activeFileCount • fileCount • isDeleted • lastActivityDate • ownerDisplayName	• Integer • Integer • Boolean • String • String

Table	Column	Type
	• ownerPrincipalName • reportPeriod • reportRereshDate • siteURL • storageAllocatedInBytes • storageUsedInBytes	• String • String • String • String • Integer • Integer
additional_user_fields		

Microsoft Azure AD

Connects to the beta endpoint of the Microsoft Graph API. It fetches users, groups, group members, roles, role members, and devices.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoints at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

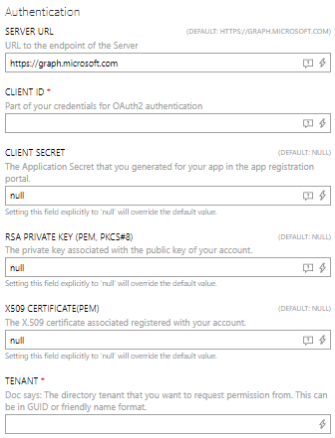
5. When finished, select **Register**.

API Permissions

In order to use this connector, the following permissions are required:

Permission	Necessity	Description
`Device.Read.All`	mandatory	Read all devices registered within the organization.
`Directory.Read.All`	mandatory	Read directory data in the directory of the organization. Users, groups, and devices will be extracted.
`Group.Read.All`	mandatory	Read all groups including group properties and memberships.
`RoleManagement.Read.Directory`	mandatory	Read all directory RBAC settings. Directory roles and memberships will be extracted.
`User.Read.All`	mandatory	Read all user profiles. Basic user data (name, mail, user principal name, etc.) and subscription details will be extracted.

Connector Setup



- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant from which information should be requested into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Fetch Registered Users of Device

This parameter is used to enable or disable the fetching of registers users of devices.

Technical Name	`fetch_users_with_device`
Category	Functional
Type	Boolean (`true` or `false`)

Default Value	`false`
Example Values	`false`

Fetching registered users of devices can take a long time, therefore it is recommended to deactivate this option.

Fetch Roles

This parameter is used to enable or disable the fetching of roles.

Technical Name	`fetch_roles`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Fetching roles is not supported by some customers, therefore it can be deactivated using this parameter.

Fetch Groups

This parameter is used to enable or disable the fetching of groups.

Technical Name	`fetch_groups`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Fetching groups is not supported by some customers, therefore it can be deactivated using this parameter.

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://graph.microsoft.com`
Example Values	`https://graph.microsoft.com`

- Documentation on beta endpoint reference

Client ID

This parameter should contain the client ID which is associated with the account and together with the client secret part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve this is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appId (clientId)
- password (clientSecret)
- tenantId (this is the ID of the underlying Azure Active Directory)

Client Secret

This parameter should contain the client secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a Client Secret OR (a Private Key AND a Certificate). In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appId (clientId)
- password (clientSecret)
- tenantId (this is the ID of the underlying Azure Active Directory)

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account.

Technical Name	`private_key`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file 'cert.pem'. On the Azure Portal, the certificate must be registered for the Application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file 'cert.pem'). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant that permission shall be requested from. This can be in a GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`999`
Example Values	`999`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter limits the number of requests issued in the time interval set by the parameter Rate LImiter Duration.

Technical Name	`rate_limiter_num_requests`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5, 20`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a global maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Rate Limiter Duration

This parameter sets the time interval during which at most Rate Limiter Number of Requests are issued by the connector.

Technical Name	`rate_limiter_duration`
Category	Technical
Type	String
Default Value	`PT1S`
Example Values	`PT1S, PT1M, PT2H`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a global maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical

Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of

rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://login.microsoftonline.com/{tenant_id}/oauth2/v2.0/token`
Description:	Authenticates with the API and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/en-us/graph/auth-v2-service#4-get-an-access-token

Endpoint:	`{+serverUrl}/beta/users/`
Description:	Get all users.
Permissions:	`User.Read.All`
Extracted Fields:	`id`, `onPremisesSamAccountName`, `userPrincipalName`, `onPremisesImmutableId`, `onPermisesDistinguishedName`, `onPremisesLastSyncDateTime`, `displayName`, `deletedDateTime`, `givenName`, `surname`, `employeeID`, `mail`, `country`, `city`, `officeLocation`, `department`, `companyName`, `onPremisesUserPrincipalName`, `signInSessionsValidFromDateTime`, `employeeType`, `userType`, `accountEnabled`
Documentation:	https://docs.microsoft.com/graph/api/user-list?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/groups/`
Description:	Get all groups.
Permissions:	`Group.Read.All`
Extracted Fields:	`id`, `displayName`, `mailNickname`, `renewedDateTime`, `createdDateTime`, `deletedDateTime`, `securityIdentifier`, `onPremisesDomainName`, `onPremisesSamAccountName`
Documentation:	https://docs.microsoft.com/graph/api/group-list?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/groups/{groupId}/members`
Description:	Get members with group.
Permissions:	`Group.Read.All`
Extracted Fields:	`id`
Documentation:	https://docs.microsoft.com/graph/api/group-list-members?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/directoryRoles/`
Description:	Get all roles.
Permissions:	`RoleManagement.Read.Directory`
Extracted Fields:	`id`, `deletedDateTime`, `description`, `displayName`, `roleTemplateId`
Documentation:	https://docs.microsoft.com/graph/api/directoryrole-list?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/directoryRoles/{roleId}/members`
Description:	Get members with role.
Permissions:	`RoleManagement.ReadDirectory`
Extracted Fields:	`id`
Documentation:	https://docs.microsoft.com/graph/api/directoryrole-list-members?view=graph-rest-beta&tabs=http

Endpoint:	`{+serverUrl}/beta/devices/`
Description:	Get all devices
Permissions:	`Device.Read.All`
Extracted Fields:	`id`, `displayName`, `name`, `accountEnabled`, `approximateLastSignInDateTime`, `complianceExpirationDateTime`, `deviceId`, `deviceMetadata`, `deviceVersion`, `isCompliant`, `isManaged`, `mdmAppId`, `onPremisesLastSyncDateTime`, `onPremisesSyncEnabled`, `operatingSystem`, `operatingSystemVersion`, `profileType`, `trustType`, `status`, `platform`, `kind`, `model`, `manufacturer`
Documentation:	https://docs.microsoft.com/graph/api/device-list?view=graph-rest-

	beta&tabs=http

Endpoint:	`{+serverUrl}/beta/devices/{deviceId}/registeredUsers`
Description:	Get users with device.
Permissions:	`Directory.Read.All`
Extracted Fields:	`id`
Documentation:	https://docs.microsoft.com/graph/api/device-list-registeredusers?view=graph-rest-beta&tabs=http

Tables

Table	Column	Type
users	• accountEnabled • city • companyName • country • deletedDateTime • department • displayName • employeeID • employeeType • givenName • id • mail • officeLocation • onPremisesDistinguishedName • onPremisesImmutableId • onPremisesLastSyncDateTime • onPremisesSamAccountName • onPremisesUserPrincipalName • signInSessionsValidFromDateTime • surname • userPrincipalName • userType	• String • String
groups	• createdDateTime • deletedDateTime • displayName • id • mailNickname • onPremisesDomainName • onPremisesSamAccountName • renewedDateTime • securityIdentifier	• String • String • String • String • String • String • String • String • String
group_members	• groupId	• String

Table	Column	Type
	• userId	• String
roles	• deletedDateTime • description • displayName • id • roleTemplateId	• String • String • String • String • String
role_member	• roleId • userId	• String • String
devices	• accountEnabled • approxiateLastSignInDateTime • complianceExpirationDateTime • deviceId • deviceMetadata • deviceVersion • displayName • id • isCompliant • isManaged • kind • manufacturer • mdmAppId • model • name • onPremisesLastSyncDateTime • onPremisesSyncEnabled • operatingSystem • operatingSystemVersion • platform • profileType • status • trustType	• Boolean • String • String • String • String • Integer • String • String • Boolean • Boolean • String • String • String • String • String • String • Boolean • String • String • String • String • String

Microsoft Azure Compute

The connector is used to fetch information about VirtualMachines and VirtualMachineScaleSets hosted in the Azure Compute Cloud. The connector makes use of the Microsoft Azure Java SDK. The main resources used in the connector are equivalent to the REST API objects:

- VirtualMachine
- VirtualMachineScaleSets
- VirtualMachineScaleSetVM
  If you are not interested in the ScaleSets you can deactivate them by setting the parameter Fetch Scale Set to false.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoints at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

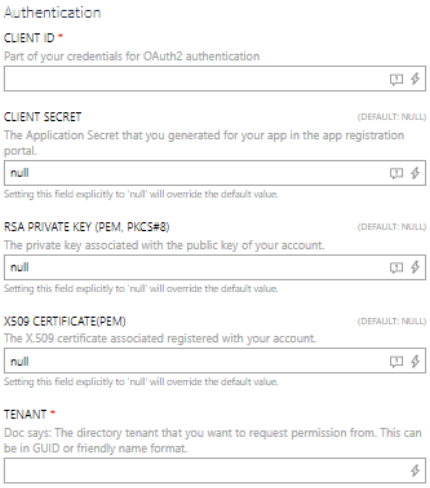
1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

5. When finished, select **Register**.

Connector Setup



- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant from which information should be requested into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`

Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Subscription Ids

Fetch data only for the given subscriptions. When `null`, the data is fetched for all subscriptions of the tenant.

Technical Name	`subscription_ids`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null`

Fetch Scale Sets

Fetch all VMs running in VirtualMachineScaleSets.

Technical Name	`fetch_scale_set`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Fetch Network Information

Activates fetching of network information. Requires extra permission.

Technical Name	`fetch_network`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Authentication

Client ID

This parameter should contain the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appId (clientId)
- password (clientSecret)
- tentantId (this is the ID of the underlying Azure Active Directory)

Client Secret

This parameter should contain the Application Secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a Client Secret OR (a Private Key AND a Certificate). In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appId (clientId)

- password (clientSecret)
- tentantId (this is the ID of the underlying Azure Active Directory)

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file 'cert.pem'. On the Azure Portal, the certificate must be registered for the Application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file 'cert.pem'). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant ID

This parameter contains the Azure Active Directory ID:

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token
Description:	Authenticates with the api and returns a token in exchange for valid credentials.
Documentation:	*https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token*

Tables

Table	Column	Type
virtual_machines	• imageExactVersion • imageOffer • imagePublisher • imageSku • imageVersion • instanceId • licenseType • location • name • primaryFqdn • primaryMacAddress • primaryPrivateIpAddress • primaryPublicIpAddress • provisioningState • size • status • vmId	• String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String
tags	• key • value • vmId	• String • String • String
vm_skus	• name • subscriptoinId • vCpus • vCpusPerCore	• String • String • String • String
vmss_vms	• id • imageExactVersion • imageOffer • imagePublisher • imageSku • imagerVersion • licenseType • location • name • osType • scaleSetLicenseType • scaleSetResourceGroup • scaleSetSkuCapacity • scaleSetSkuName • scaleSetSkuTier • skuCapacity • skuName • skuTier • state • type • vmId	• String • String • String • String • String • String • String • String • String • String • String • String • Integer • String • String • Integer • String • String • String • String • String

Table	Column	Type
vmss_tags	• key • value • vmssId	• String • String • String
vm_storage	• caching • diskSizeGb • id • name • type • vmId	• String • Integer • String • String • String • String
vmss_storage	• caching • diskSizeGb • name • type • vmssId	• String • Integer • String • String • String

Microsoft Azure ComputeInventory

This connector is a variant of the `microsoft.azure.loganalytics` connector. It contains some predefined queries to fetch the compute inventory data. If you need other queries, please use the `microsoft.azure.loganalytics` connector and write your own queries.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

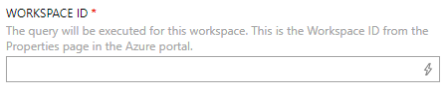
1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

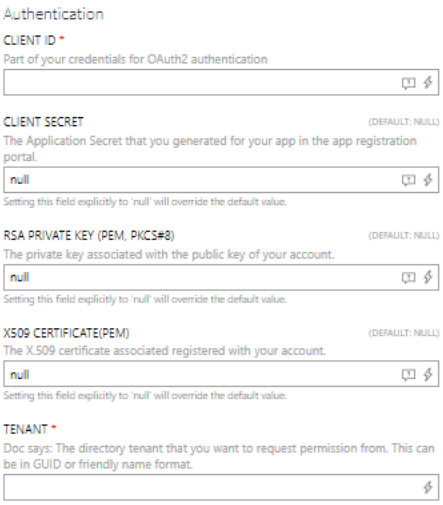
- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

5. When finished, select **Register**.

Connector Setup



- In the **Configuration** tab, enter the Workspace ID of the target workspace of the query into the **WORKSPACE ID** field.



- In the **Connection** tab, enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant from which information should be requested into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Workspace ID

This parameter specifies the workspace for which the query will be executed. This is the **Workspace ID** from the **Properties** page in the Azure portal.

Technical Name	`workspace_id`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Fetch Daemons

This parameter is used to enable or disable the fetching of daemons.

Technical Name	`fetch_daemons`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

The following query is executed, when this parameter is set `true`.

```
ConfigurationData
| where ConfigDataType == "Daemons"
| where TimeGenerated > datetime({timeInterval.start})
| where TimeGenerated < datetime({timeInterval.end})
| where SourceComputerId in ({deviceFilter}) .  '\")
| summarize by SourceComputerId, Computer, SourceSystem,
ManagementGroupName, VMUUID, Type,
_ResourceId, SvcDisplayName, SvcAccount,
SvcController, SvcName, SvcPath, SvcRunlevels,
SvcStartupType, SvcState, SvcDescription';
```

Fetch Files

This parameter is used to enable or disable the fetching of files.

Technical Name	`fetch_files`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

The following query is executed, when this parameter is set `true`.

```
ConfigurationData
| where ConfigDataType == "Files"
| where TimeGenerated > datetime({timeInterval.start})
| where TimeGenerated < datetime({timeInterval.end})
| where SourceComputerId in ({deviceFilter}) .  '\")
| summarize by SourceComputerId, Computer, SourceSystem,
ManagementGroupName, VMUUID, Type,
_ResourceId, SvcDisplayName, SvcAccount,
SvcController, SvcName, SvcPath, SvcRunlevels,
SvcStartupType, SvcState, SvcDescription';
```

Fetch Registries

This parameter is used to enable or disable the fetching of registries.

Technical Name	`fetch_registries`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

The following query is executed, when this parameter is set `true`.

```
ConfigurationData
| where ConfigDataType == "Registry"
| where TimeGenerated > datetime({timeInterval.start})
| where TimeGenerated < datetime({timeInterval.end})
| where SourceComputerId in ({deviceFilter}) .  '\")
| summarize by SourceComputerId, Computer, SourceSystem,
ManagementGroupName, VMUUID, Type,
_ResourceId, SvcDisplayName, SvcAccount,
SvcController, SvcName, SvcPath, SvcRunlevels,
SvcStartupType, SvcState, SvcDescription';
```

Fetch Software

This parameter is used to enable or disable the fetching of software.

Technical Name	`fetch_software`
Category	Functional
Type	Boolean (`true` or `false`)

Default Value	`true`
Example Values	`true`

The following query is executed, when this parameter is set `true`.

```
ConfigurationData
| where ConfigDataType == "Software"
| where TimeGenerated > datetime({timeInterval.start})
| where TimeGenerated < datetime({timeInterval.end})
| where SourceComputerId in ({deviceFilter}) .  '\")
| summarize by SourceComputerId, Computer, SourceSystem,
ManagementGroupName, VMUUID, Type,
_ResourceId, SvcDisplayName, SvcAccount,
SvcController, SvcName, SvcPath, SvcRunlevels,
SvcStartupType, SvcState, SvcDescription';
```

Fetch Windows Services

This parameter is used to enable or disable the fetching of windows services.

Technical Name	`fetch_windows_services`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

The following query is executed, when this parameter is set `true`.

```
ConfigurationData
| where ConfigDataType == "WindowsServices"
| where TimeGenerated > datetime({timeInterval.start})
| where TimeGenerated < datetime({timeInterval.end})
| where SourceComputerId in ({deviceFilter}) .  '\")
| summarize by SourceComputerId, Computer, SourceSystem,
ManagementGroupName, VMUUID, Type,
_ResourceId, SvcDisplayName, SvcAccount,
SvcController, SvcName, SvcPath, SvcRunlevels,
SvcStartupType, SvcState, SvcDescription';
```

Device Filter

This parameter is used to define a list of devices for which the results will be fetched. If this field is set to null, it will override the default value.

Technical Name	`device_filter`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null`

Fetch in Time Interval

This parameter is used to restrict the query to the given time interval.

Technical Name	`time_interval`
Category	Functional
Type	String
Default Value	`P30D`

Example Values	`P30D`
	`2020-10-01T14:15Z/2020-11-20T16:00Z`
	`2020-10-01T14:15Z/P2DT5H45M`
	`P1DT1H45M/2020-11-01T14:15Z`
	`PT21H45M`

The interval has to conform to the ISO-8601 standard. Repeating intervals are not supported.

- Example 1: For setting an interval with 'start date' and the 'end date' we use '2020-10-01T14:15Z/2020-11-20T16:00Z'.
- Example 2: For setting an interval with 'start date' and 'duration' we use '2020-10-01T14:15Z/P2DT5H45M'.
- Example 3: For setting an interval with 'duration' and the 'end date' we use 'P1DT1H45M/2020-11-01T14:15Z'.
- Example 4: For setting an interval with only 'duration' which will go in past from instance of now we use 'PT21H45M'.

Authentication

Client ID

This parameter contains a part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appId (clientId)
- password (clientSecret)
- tentantId (this is the ID of the underlying Azure Active Directory)

Client Secret

This parameter should contain the Application Secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a Client Secret OR (a Private Key AND a Certificate). In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appId (clientId)
- password (clientSecret)
- tentantId (this is the ID of the underlying Azure Active Directory)

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account.

Technical Name	`private_key`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`

	... vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ Xx/U4aNjoXBLzyvf1t4 -----END PRIVATE KEY-----

Instead of authenticating with a Client Secret, one can use a certificate and private key. According to the official documentation the certificate can be used wherever a client is used, but experiences might vary. If X.509 certificates are new to you or confuse you, this is the time to take a step back and learn about them or ask your trusted system administrator. The topic is far to complex to be explained in a few lines.

****Everything beyond this point is highly security relevant.****
The key pair (private key and certificate) must be generated on a trusted machine. With openssl, the key pair can be generated like so:

```
openssl req -x509 -newkey rsa:4096 -keyout
key.pem -out cert.pem -days 365 -nodes
```

Note:
The meta information (CN, Issuer, etc.) is technically not required, but one should set some reasonable values nevertheless. Set this parameter to the content of the file 'key.pem'. Keep the key secret. Do not share it with anybody. Whoever has access to this key will be able to impersonate the application. Do not reuse keys for different application. Generate a new keypair for every application. This way the access can be revoked easily if a key gets lost.

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file 'cert.pem'. On the Azure Portal, the certificate must be registered for the Application on the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content for the certificate (the file 'cert.pem'. The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant that permission shall be requested from. This can be in a GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`

Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token`
Description:	Authenticate with the api and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token

Endpoint:	`https://api.loganalytics.io/v1/workspaces/{workspaceId}/query`
Description:	Query Endpoint of the Log Analytics REST API.
Documentation:	https://docs.microsoft.com/de-de/rest/api/loganalytics/dataaccess/query/get

Table

Table	Column	Type
`daemons`		
`files`		
`registries`		
`software`		
`windows_services`		

Microsoft Azure Consumption

This connector fetches consumption data from the Azure REST API. The API is rate limited. If you experience a lot of errors, consider increasing the **Max Delay** and **Max Attempts** parameters as well as using a smaller **Time Interval**. This connector does not use the Azure SDK, since the Consumption SDK has not been finalized yet and does not provide the data needed. If you still are on a legacy contract some fields in the output file stay empty.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information the is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration** > **New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

5. When finished, select **Register**.

Connector Setup

- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant from which information should be requested into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`

Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Subscription IDs

This parameter specifies the subscriptions from which data will be fetched. When set to `null`, the data for all subscriptions of the tenant will be fetched.

Technical Name	`subscription_ids`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null`

Fetch Usage Details Period

This parameter defines the period for which the usage details will be fetched. When left empty, the current month is fetched. If this field is set to `null`, it will override the default value. The interval has to conform to the ISO-8601 standard. Repeating intervals are not supported.

Technical Name	`time_interval`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`, `2020-10-01T14:15Z/2020-11-20T16:00Z`, `2020-10-01T14:15Z/P2DT5H45M`, `P1DT1H45M/2020-11-01T14:15Z`, `PT21H45M`

Note:
During testing, the API turned out to be unstable for large data sets. If there are a lot of "504 Gateway Timeout" and "500 Internal Server Error", consider reducing the time interval. By default the API returns the full current month. A time interval of a few days (e.g. 'PSD') seemdd to work pretty well during testing.

The interval has to conform to the ISO-8601 standard. Repeating intervals are not supported.

- Example 1: For setting an interval with 'start date' and the 'end date' we use '`2020-10-`

`01T14:15Z/2020-11-20T16:00Z`'.

- Example 2: For setting an interval with 'start date' and 'duration' we use '`2020-10-01T14:15Z/P2DT5H45M`'.
- Example 3: For setting an interval with 'duration' and the 'end date' we use '`P1DT1H45M/2020-11-01T14:15Z`'.
- Example 4: For setting an interval with only 'duration' which will go in past from instance of now we use '`PT21H45M`'.

Authentication

Client ID

This parameter contains a part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credential:

- appId (clientId)
- password (clientSecret)
- tentantId (this is the ID of the underlying Azure Active Directory)

Client Secret

This parameter should contain the client secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	null

Supply EITHER a client secret OR a private key AND a certificate. In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appId (clientId)
- password (clientSecret)
- tentantId (this is the ID of the underlying Azure Active Directory)

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account.

Technical Name	private_key
Category	Authentication
Type	String null
Default Value	null
Example Values	null, -----BEGIN CERTIFICATE----- MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2 2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP ... vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ Xx/U4aNjoXBLzyvf1t4 -----END CERTIFICATE-----

During the generation of the Private Key, an associated public key (certificate) was written to the file 'cert.pem'. On the Azure Portal, the certificate must be registered for the Application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the the content of the certificate (the file 'cert.pem'. The certificate can be shared with anybody and cannot be abused for authentication.

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	certificate

Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file 'cert.pem'. On the Azure Portal, the certificate must be registered for the Application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file 'cert.pem'). The certificate can be shared with anybody and cannot be abused for the authentication.

Tenant

This parameter contains the directory tenant that permission shall be requested from. This can be in a GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`

Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token`
Description:	Authenticate with the api and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token

Endpoint:	https://management.azure.com/subscription/{subscriptionId}/p
Description:	
Documentation:	n/a

Tables

Table	Column	Type
usage_details	• billingCurrencyCode • consumedService • costInBilingCurrency • date • exchangeRate • frequency • id • instanceName • kind • meterCategory • meterName • meterRegion • meterSubCategory • name • payGPrice • paygCostInBillingCurrency • paygCostInUSD • quantity • resourceGroup • resourceLocation • resourceLocationNormalized • serviceFamily • serviceInfo1 • serviceInfo2 • servicePeriodEndDate • servicePeriodStartDate • subscriptionGuid • subscriptionName • unitOfMeasure • unitPrice	• String • String • Number • String • Number • String • String • String • String • String • String • String • String • String • Number • Number • Number • Number • String • String • String • String • String • String • String • String • String • String • Number

Microsoft Azure LogAnalytics

This connector sends a single query to the Microsoft LogAnalytics REST endpoint. There are some known limitations imposed by the API:

1. Queries cannot return more than 500,000 rows.
2. Queries cannot return more than 64,000,000 bytes (~61 MB total data).
3. Queries cannot run longer than 10 minutes by default.
   If you encounter those limits, you should consider fetching data alphabetically or in smaller time intervals. Besides, this connector supports only a single table. Make sure that your query returns only one table, or else you will encounter an error. Microsoft provides a demo workspace. It is probably not compatible with this connector because it has a different type of authentication than the production API.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration** > **New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

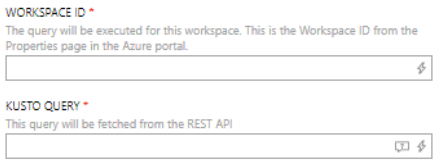
Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. IN cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

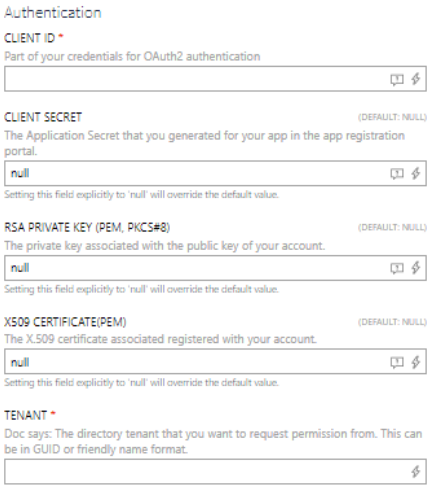
5. When finished, select **Register**.

After the app has been registered, the following information for the app will be available in the Azure portal:

Connector Setup



- In the **Configuration** tab, enter the Workspace ID of the target workspace of the query into the **WORKSPACE ID** field.
- Also enter the name of the Kusto query that will be fetched from the REST API into the **KUSTO QUERY** field.



- In the **Connection** tab, enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant from which information should be requested into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Workspace ID

This parameter specifies the workspace for which the query will be executed. This is the Workspace ID from the Properties page in the Azure portal.

Technical Name	`workspace_id`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Kusto Query

This parameter contains the query that will be fetched from the REST API

Technical Name	`query`
Category	Functional
Type	String
Default Value	n/a
Example Values	

A detailed tutorial for Kusto queries is available in the official Microsoft documentation.

Authentication

Client ID

This parameter contains a part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation.

Client Secret

This parameter should contain the client secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a Client Secret OR a Private Key AND a Certificate. In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account.

Technical Name	
Category	Authentication
Type	
Default Value	`null`

Example Values	`null,`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

Instead of authentication with a Client Secret, one can use a certificate and private key. According to the official documentation the certificate can be used wherever a client secret is used, but your experiences might vary.

The key pair (private key and certificate) must be generated on a trusted machine with openssl. The key pair an be generated so:

- ```
  openssl req -x509
  -newkey rsa:4096
  -keyout key.pem
  -out cert.pem
  -days 365 -nodes
  ```

The meta information (CN, Issuer, etc.) is technically not required, but one should set some reasonable values nevertheless.

Set this parameter to the content of the file `key.pem`. Keep the key secret. Do NOT share it with anybody. Whoever has access to this key will be able to impersonate the application.

Do NOT reuse keys for different application. Always generate a new keypair for every application.
  ```

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file cert.pem. On the Azure Portal, the certificate must be registered for the application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file cert.pem). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant that permission shall be requested from. This can be in a GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	`null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token`
Description:	Authenticates with the API and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token

Endpoint:	`https://api.loganalytics.io/v1/workspaces/{workspaceId}/query`
Description:	Query endpoint of the Log Analytics REST API.
Documentati	https://docs.microsoft.com/de-de/rest/api/loganalytics/dataaccess/query/get

on:	

Tables

Table	Column	Type
query		

Microsoft Azure SQL

The connector is used to fetch information about Databases hosted in the Azure SQL Cloud. The connector makes use of the Microsoft Azure Java SDK. The main resources used in the connector are equivalent to the REST API objects:

- Elastic Pool
- Managed Instance

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information the is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

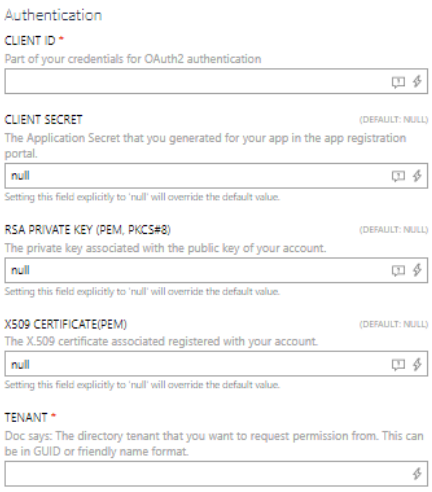
1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

5. When finished, select **Register**.

Connector Setup



- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant from which information should be requested into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Subscription IDs

This parameter is used to defines the subscriptions for which data is fetched for. When set to `null`, the data for all subscriptions to the tenant is fetched.

Technical Name	`subscription_ids`
Category	Functional

Type	Array `null`
Default Value	`null`
Example Values	`null`

Authentication

Client ID

This parameter contains a part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation.

Client Secret

This parameter should contain the client secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a Client Secret OR a Private Key AND a Certificate. In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line

interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account.

Technical Name	`private_key`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

Instead of authentication with a Client Secret, one can use a certificate and private key. According to the official documentation the certificate can be used wherever a client secret is used, but your experiences might vary. The key pair (private key and certificate) must be generated on a trusted machine with openssl. The key pair an be generated so:

- `openssl req -x509`
  `-newkey rsa:4096`
  `-keyout key.pem`
  `-out cert.pem`
  `-days 365 -nodes`

The meta information (CN, Issuer, etc.) is technically not required, but one should set some reasonable values nevertheless. Set this parameter to the content of the file `key.pem`. Keep the key secret. Do NOT share it with anybody. Whoever has access to this key will be able to impersonate the application. Do NOT reuse keys for different application. Always generate a new keypair for every application.

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file cert.pem. On the Azure Portal, the certificate must be registered for the application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file cert.pem). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant that permission shall be requested from. This can be in a GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can a maxium delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token

Tables

Table	Column	Type
databases	• creationDate • databaseId • dbName • kind • licenseType • location • resourceGroup • serverId • skuFamily • skuName • skuTier • status • subsciptionId • type	• String • String • String • String • String • String • String • String • String • String • String • String • String • String
elastic_pools	• dtu • edition • id • kind • licenseType • location • name • resourceGroup • skuCapacity • skuName • skuTier	• Integer • String • String • String • String • String • String • String • String • String • String
managed_instances	• id • licenseType • location • name • skuCapacity • skuFamily • skuName • skuSize • skuTier • vCores	• String • String • String • String • Integer • String • String • String • String • Integer

Microsoft Dynamics CRM

Connects to the beta endpoint Microsoft Graph API. It fetches user info, user activity data, user activation data, product and license data, and signIns (optional).

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information the is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

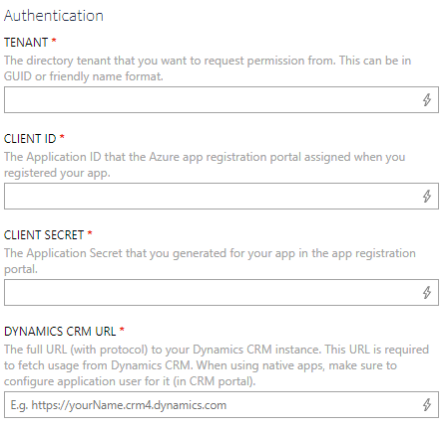
1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

5. When finished, select **Register**.

Connector Setup



- Enter the directory tenant from which information should be requested into the **TENANT** field.
- Enter the Application ID that has been assigned by the Azure app registration portal into the **CLIENT ID** field.
- Enter the Application Secret that has been created in the App Registration Portal into the **CLIENT SECRET** field.
- Enter the full URL (with protocol) to the target Dynamics CRM instance into the **DYNAMICS CRM URL** field.

Connector Parameters

Configuration

Fetch Additional Data

This parameter is used determine which additional data should be fetched.

Technical Name	`fetch_from`
Category	Functional
Type	Select • AD • CRM • None
Default Value	`none`
Example Values	`true`

There are three options from which to choose. Select AD to fetch data from the Active Directory. Select CRM to fetch additional data from the Microsoft Dynamics CRM. Select None to fetch no additional data.

Usage Since

This parameter defines the date since when the usage will be fetched. The parameter uses the ISO 8601 format.

Technical Name	`sign_ins_since`
Category	Functional
Type	String
Default Value	`PT30d`
Example Values	`PT12h, PT30d, 2020-01-01T12:00:00`

Authentication

Tenant

This parameter represents the directory tenant from which permissions are requested. This can either be in GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the Application ID that the Azure app registration portal assigned when the app was registered.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client Secret

This parameter contains the Application Secret that was generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Dynamics CRM URL

This parameter contains the full URL (including the protocol) for the Dynamics CRM instance. This URL is required to fetch usage data from the Dynamics CRM. When using native apps, ensure to configure an application user for it (in the CRM portal).

Technical Name	`dynamics_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://yourName.crm4.dynamics.com`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Number
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

	Be aware: Most APIs will limit the maximum page size!

Usage Request Interval

This parameter contains the duration of the interval per request. The parameter uses the ISO 8601 format.

Technical Name	`sign_ins_request_interval`
Category	Technical
Type	String
Default Value	`PT12h`
Example Values	`PT24h, PT2d`

To speed up the download of the sign-ins, the requests are executed in parallel. For example: if **Sign-ins Since** is PT10h and **Sign-ins Request Interval** is PT2h there will be five parallel requests. A shorter interval always means more parallel requests, which means the complete time will be reduced, unless the high parallelization leads to the API's refusal to answer the requests. Thus, the optimal value for this parameter is unknown.

Initial Delay (in ms)

This parameter defines the initial time (in milliseconds) to wait before a failed request is reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Number
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with

this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter the maximum amount of time (in milliseconds) to wait before a failed HTTP request is reattempted. Set to `null` for unrestricted delay.

Technical Name	`max_delay`
Category	Technical
Type	Number `null`
Default Value	`600000`
Example Values	`600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, one can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Number
Default Value	`3`
Example Values	`3`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Connection Timeout (in ms)

This parameter defines the time (in milliseconds) after which a running request aborts. If set to `null`, the default timeout of the system is used.

Technical Name	`timeout`
Category	Technical
Type	Number
Default Value	`0`
Example Values	`0, 10000`

Microsoft Graph Generic Query

Connects to the Microsoft Graph API. The user writes an arbitrary query that is sent to the API as is. The full path to the Graph API must be set in the Server URL.

Example:

- `https://graph.microsoft.com/beta/users/`
- `https://graph.microsoft.com/beta/deviceManagement/managedDevices/`

The response is parsed and written to a .csv. The connector can only handle flat responses with fields of the following types:

- String
- Number
- Boolean
- Object
- Lists of smple types (String, Number, Boolean)

If the JSON response contains lists of objects or lists of lists the connector will not work.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoints at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

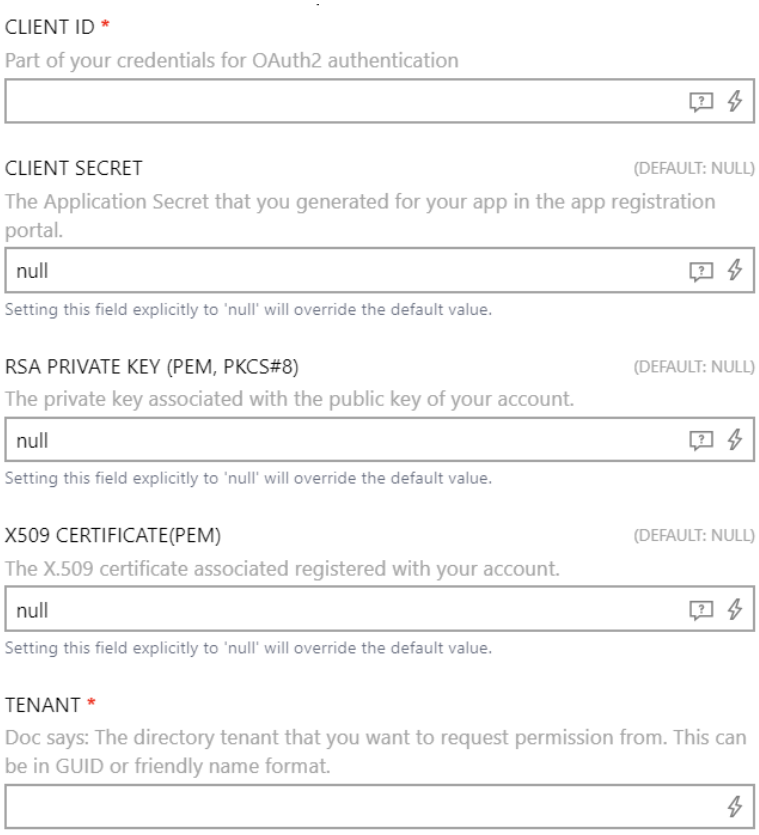
1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.

4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

   - Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub
5. When finished, select **Register**.

Connector Setup



- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant from which information should be requested into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Header Look Ahead

This parameter defines the number of records fetched beforehand to determine the set of columns. If set to `null` all records will be fetched.

Technical Name	`header_look_ahead`
Category	Functional
Type	Integer `null`
Default Value	`100000, null`
Example Values	`10000`

Some API endpoints have variable records but do not describe the columns and respectively the column names beforehand. However, this is necessary to prepare the output .csv. The connector will collect and cache a number of records before writing the first line to the .csv. If this number is too small, not all fields will be determined and these will be missing in the final data. If this number is large, the memory consumption of the connector will increase.

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://graph.microsoft.com`
Example Values	`https://graph.microsoft.com`

Documentation on beta endpoint reference

Client ID

This parameter should contain the client ID which is associated with the account and together with the client secret part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector ti is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

Client Secret

This parameter should contain the client secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a client secret OR a private key AND a certificate. In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account.

Technical Name	`private_key`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

Instead of authentication with a Client Secret, one can use a certificate and private key. According to the official documentation the certificate can be used wherever a client secret is used, but your experiences might vary. The key pair (private key and certificate) must be generated on a trusted machine with openssl. The key pair an be generated so:

- `openssl req -x509 -newkey rsa:4096 -keyout key.pem -out cert.pem -days 365 -nodes`

The meta information (CN, Issuer, etc.) is technically not required, but one should set some reasonable values nevertheless. Set this parameter to the content of the file `key.pem`. Keep the key secret. Do NOT share it with anybody. Whoever has access to this key will be able to impersonate the application. Do NOT reuse keys for different application. Always generate a new keypair for every application.

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file cert.pem. On the Azure Portal, the certificate must be registered for the application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file cert.pem). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant that permission shall be requested from. This can be in a GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`999`
Example Values	`999`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter limits the number of requests issued in the time interval set by the parameter Rate LImiter Duration.

Technical Name	`rate_limiter_num_requests`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5, 20`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a globale maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Rate Limiter Duration

This parameter sets the time interval during which at most Rate Limiter Number of Requests are issued by the connector.

Technical Name	`rate_limiter_duration`
Category	Technical
Type	String
Default Value	`PT1S`
Example Values	`PT1S, PT1M, PT2H`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a global maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token

Endpoint:	{+serverUrl}
Description:	Get data from generic endpoint path
Documentation:	https://docs.microsoft.com/en-us/graph/query-parameters

Tables

Table	Column	Type
graph_generic_query		

Microsoft Intune

Connects to the beta endpoint of the Microsoft Graph API. It fetches managed devices, detected apps, apps per devices.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

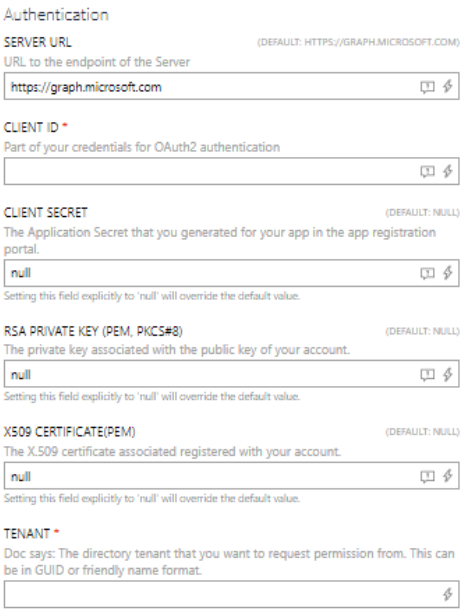
5. When finished, select **Register**.

API Permissions

In order to use this connector, the following permissions are required:

Permission	Necessity	Description
`Device.Read.All`	mandatory	Read all devices registered within the organization.
`DeviceManagementApps.Read.All`	mandatory	Read all Microsoft Intune registered apps on a device.
`DeviceManagementConfiguration.Read.All`	mandatory	Read Microsoft Intune device configuration and policies.
`DeviceManagementManagedDevices.Read.All`	mandatory	Read Microsoft Intune managed devices.
`DeviceManagementServiceConfig.Read.All`	mandatory	Read Microsoft Intune configuration.
`Directory.Read.All`	mandatory	Read directory data in the directory of the organization. Users, groups, and devices will be extracted.
`User.Read.All`	mandatory	Read all user profiles. Basic user data (name, mail, user principal name, etc.) and subscription details will be extracted.

Connector Setup



- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant that information should be requested from into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Fetch User Data

This parameter is used to enable or disable the fetching of conferencing user data.

Technical Name	`fetch_user_data`
Category	Functional
Type	Boolean (`true` or `false`)

Default Value	`false`
Example Values	`false`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://graph.microsoft.com`
Example Values	`https://graph.microsoft.com`

Documentation on beta endpoint reference

Client ID

This parameter should contain the client ID which is associated with the account and together with the client secret part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector ti is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

Client Secret

This parameter should contain the client secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a client secret OR a private key AND a certificate. In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account.

Technical Name	`private_key`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

Instead of authentication with a Client Secret, one can use a certificate and private key. According to the official documentation the certificate can be used wherever a client secret is used, but your experiences might vary. The key pair (private key and certificate) must be generated on a trusted machine with openssl. The key pair an be generated so:

- `openssl req -x509 -newkey rsa:4096 -keyout key.pem -out cert.pem -days 365 -nodes`

The meta information (CN, Issuer, etc.) is technically not required, but one should set some reasonable values nevertheless. Set this parameter to the content of the file `key.pem`. Keep the key secret. Do NOT share it with anybody. Whoever has access to this key will be able to impersonate the application. Do NOT reuse keys for different application. Always generate a new keypair for every application.

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file cert.pem. On the Azure Portal, the certificate must be registered for the application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file cert.pem). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant that permission shall be requested from. This can

be in a GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`999`
Example Values	`999`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter limits the number of requests issued in the time interval set by the parameter Rate LImiter Duration.

Technical Name	`rate_limiter_num_requests`
Category	Technical

Type	Integer
Default Value	`5`
Example Values	`5, 20`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a globale maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Rate Limiter Duration

This parameter sets the time interval during which at most Rate Limiter Number of Requests are issued by the connector.

Technical Name	`rate_limiter_duration`
Category	Technical
Type	String
Default Value	`PT1S`
Example Values	`PT1S, PT1M, PT2H`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a global maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token`
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token

Endpoint:	`{+serverUrl}/beta/deviceManagement/managedDevices`
Description:	List properties and relationships of the managedDevice objects.
Permissions:	`DeviceManagementManagedDevices.Read.All`, `DeviceManagementServiceConfig.Read.All`
Extracted Fields:	`id`, `userId`, `deviceName`, `managedDeviceOwnerType`, `enrolledDateTime`, `lastSyncDateTime`, `operatingSystem`, `complianceState`, `managementAgent`, `osVersion`, `azureADRegistered`, `deviceEnrollmentType`, `azureADDeviceId`, `model`, `manufacturer`, `serialNumber`, `managedDeviceName`
Documentation:	https://docs.microsoft.com/graph/api/intune-devices-manageddevice-list

Endpoint:	`{+serverUrl}/beta/deviceManagement/detectedApps`
Description:	List properties and relationships of the detectedApp objects.
Permissions:	`DeviceManagementApps.Read.All`
Extracted Fields:	`id`, `displayName`, `version`, `sizeInByte`, `deviceCount`
Documentation:	https://docs.microsoft.com/graph/api/intune-devices-detectedapp-list

Endpoint:	`{+serverUrl}/beta/deviceManagement/detectedApps/{appId}/managedDevices`
Description:	List managed devices of the detectedApp objects.
Permissions:	`DeviceManagementConfiguration.Read.All`
Extracted Fields:	`deviceId`
Documentation:	https://docs.microsoft.com/en-us/graph/api/intune-devides-manageddevice-list

Endpoint:	`{+serverUrl}/beta/users`
Description:	Get all users
Documentation:	https://docs.microsoft.com/graph/api/user-list?view=graph-rest-beta&tabs=http

Tables

Table	Column	Type
managed_devices	• azureADDeviceId • azureADRegistered • complianceState • deviceEnrollmentType • deviceName • enrolledDateTime • id • lastSyncDateTime • managedDeviceName • managedDeviceOwnerType • managementAgent • manufacturer • model • operatingSystem • osVersion • serialNumber • userId	• String • Boolean • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String
detected_apps	• deviceCount • displayName • id • sizeInByte • version	• Integer • String • String • Integer • String
apps_per_device	• appId • deviceId • deviceName	• String • String • String
users	• employeeId • givenName • mail • onPremisesUserPrincipalName • surname • userPrincipalName	• String • String • String • String • String • String

Microsoft Intune Reports

Connects to the beta endpoint of the Microsoft Graph API and exports reports.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

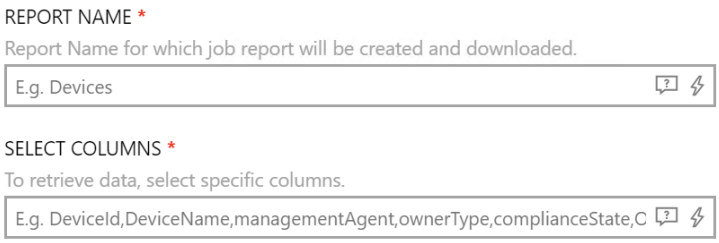
1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

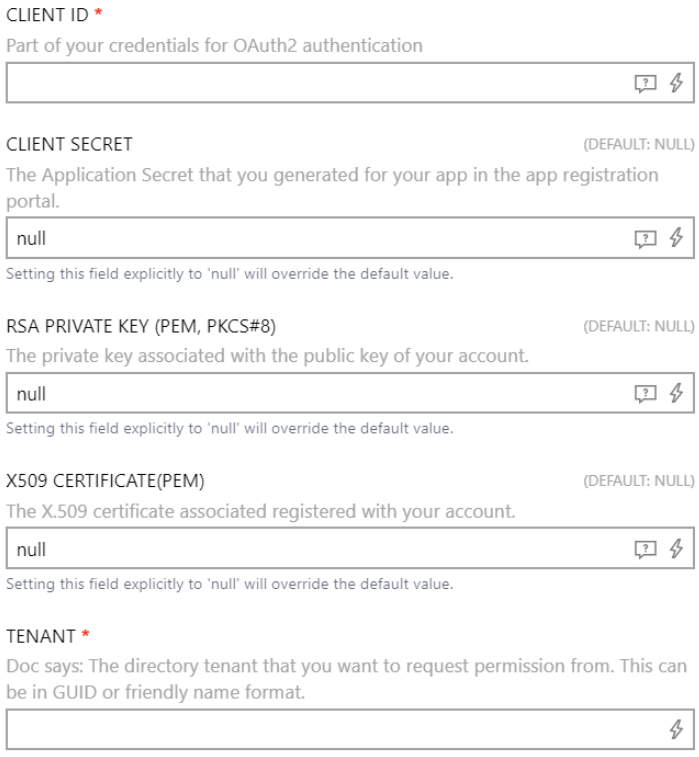
- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

5. When finished, select **Register**.

Connector Setup



- Enter the name of the target report into the REPORT NAME field.
- Enter the columns that are to be retrieved into the **SELECT COLUMN** field. Multiple columns are separated by a comma.



- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant that information should be requested from into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`

Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Report Name

This parameter contains the report name for which the job will be created and downloaded.

Technical Name	`report_name`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	`Devices`

The list of Report Names can be found here.

Select Columns

This parameter is used to select the specific columns used to retrieve data.

Technical Name	`select_columns`
Category	Functional
Type	Array
Default Value	`{empty}`
Example Values	`DeviceId, DeviceName, managementAgent, ownerType, compliance`

An example of Select columns can be found here.

Filter

This parameter is used to set a filter that is used to receive filtered data.

Technical Name	`filter`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null, (OwnerType eq '1')`

An example filter can be found here.

Max waiting time

This parameter is used to define the maximum time that the connector will wait for the report to be created and downloaded (using the ISO 8601 format).

Technical Name	`max_waiting_time`
Category	Functional
Type	String
Default Value	`PT1H`
Example Values	`PT1H`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://graph.microsoft.com`

Example Values	`https://graph.microsoft.com`

Documentation on beta endpoint reference

Client ID

This parameter should contain the client ID which is associated with the account and together with the client secret part of the credentials used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector ti is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

Client Secret

This parameter should contain the client secret that has been generated for the app in the app registration portal.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a client secret OR a private key AND a certificate. In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and

- tenantID (this is the ID of the underlying Azure Active Directory).

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account.

Technical Name	`private_key`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

Instead of authentication with a Client Secret, one can use a certificate and private key. According to the official documentation the certificate can be used wherever a client secret is used, but your experiences might vary. The key pair (private key and certificate) must be generated on a trusted machine with openssl. The key pair an be generated so:

- `openssl req -x509`
  `-newkey rsa:4096`
  `-keyout key.pem`
  `-out cert.pem`
  `-days 365 -nodes`

The meta information (CN, Issuer, etc.) is technically not required, but one should set some reasonable values nevertheless. Set this parameter to the content of the file `key.pem`. Keep the key secret. Do NOT share it with anybody. Whoever has access to this key will be able to impersonate the application. Do NOT reuse keys for different application. Always generate a new keypair for every application.

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file cert.pem. On the Azure Portal, the certificate must be registered for the application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file cert.pem). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant that permission shall be requested from. This can be in a GUID or friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token

Endpoint:	{+serverUrl}/beta/deviceManagement/reports/exportJobs
Description:	Creates a new export job report and checks if the export job report has been created.

Documentation:	https://docs.microsoft.com/en-Us/mem/intune/fundamentals/reports-graph-apis

Endpoint:	`{+serverUrl}/beta/deviceManagement/reports/exportJobs/{id}`
Description:	Fetches the status of an export job running on the Microsoft Graph server.
Documentation:	https://docs.microsoft.com/en-us/mem/intune/fundamentals/reports-export-graph-apis

Endpoint:	`https://XXXXXXXXXXXXXstorage.blob.core.windows.net/`
Description:	Reports are probably downloaded from Microsoft Azure.
Documentation:	n/a

Microsoft M365 SignIns

Connects to the beta endpoint Microsoft Graph API to fetch SignIns.

Prerequisites

In order to call the Microsoft Graph API an access token from the Microsoft identity platform is needed. The access token contains information about the connector and the permissions it has for the resources and the APIs available through Microsoft Graph. The connector must be registered with the Microsoft identity platform and be authorized by either a user or an administrator for access to the Microsoft Graph resources needed.

Register the Connector With the Microsoft Identity Platform

Integrate the connector by registering it with the Microsoft Identity Platform and thereby establish the information that is used to get tokens:

- **Application ID**: A unique identifier assigned by the Microsoft Identity Platform.
- **Redirect URI/URL**: One or more endpoint at which the connector will receive responses from the Microsoft Identity Platform.
- **Application Secret**: A password or a public/private key pair that the connector uses to authenticate with the Microsoft Identity Platform.

In order to register the connector execute the following steps:

1. Sign in to the Azure portal.
2. If the account has access to more than one tenant, select the Azure AD tenant by selecting the account in the top right corner and setting the session to the respective tenant.
3. Select the **Azure Active Directory** service in the navigation pane on the left and navigate to **App registration > New registration**.
4. On the **Register an application** page enter the registration information for the connector.
   - Name: Enter a meaningful name that will be displayed to the users.
   - Supported account types: Select which accounts will be supported by the connector:

Supported account types	Description
Accounts in this organizational directory only	This option maps to Azure AD only single-tenant. This is the default option unless the app is being registered outside of a directory. In cases where the app is registered outside of a directory, the default is Azure AD multi-tenant and personal Microsoft accounts.
Accounts in any organizational directory	This option maps to an Azure AD only multi-tenant. If the connector has been registered as Azure AD only single-tenant, it can be updated to be Azure AD multi-tenant and back to single-tenant through the **Authentication** blade.
Accounts in any organizational directory and personal Microsoft accounts	This option maps to the Azure AD multi-tenant and personal Microsoft accounts. If the connector has been registered as Azure AD multi-tenant and personal Microsoft accounts, it cannot be changed in the UI. Instead it is necessary to use the application manifest editor to change the supported account types.

- Redirect URI (optional) - Select Web as application type. Provide the base URL of your RayVentory Data Hub

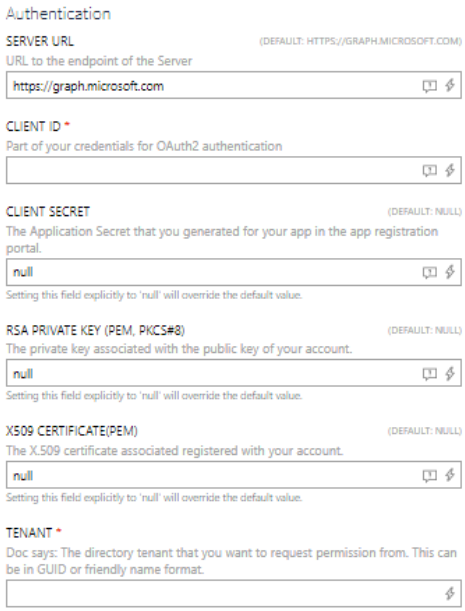
5. When finished, select **Register**.

API Permissions

In order to use this connector, the following permissions are required:

Permission	Necessity	Description
`AuditLog.Read.All`	mandatory	Read all audit log data. Extraction of SignIn data to get the last usage activity per user. Disabled by default.

Connector Setup



- Enter the Client ID which is part of the credentials for the OAuth2 authentication into the **CLIENT ID** field.
- Enter the directory tenant that information should be requested from into the **TENANT** field.
- It is necessary to either supply a Client Secret or a Private Key and a Certificate. It is necessary to choose one of the following two options.
  - If using the Client Secret, enter the Application Secret that has been generated in the App Registration Portal into the **CLIENT SECRET** field.
  - If using a Private Key and a Certificate, enter the Private Key that is associated with the Public Key of the account into the **RSA PRIVATE KEY (PEM, PKCS#8)** field and the X.509 certificate that is associated with the account into the **X509 CERTIFICATE(PEM)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Filter

This parameter contains a filter that will be passed to the Graph API in order to fetch less SignIns.

Technical Name	`filter`
Category	Functional
Type	String
Default Value	`appDisplayName ne 'Office365 Shell WCSS-Client' and appDisplayName ne 'NotApplicable'`
Example Values	`appDisplayName ne 'Office365 Shell WCSS-Client' and appDisplayName ne 'NotApplicable'`

Time Intervals

This parameter defines the interval in which all SignIns will be fetched. For each interval, the connector executes separate requests.

Technical Name	`time_intervals`
Category	Functional
Type	String
Default Value	`R144/PT10M`
Example Values	`R144/PT10M,` `R3/2020-10-01T14:15:00Z/2002-10-04T06:15:00Z,`

	`R3/2020-10-01T14:15:00Z/P2DT5H45M,`
	`R3/P1DT1H45M/2020-10-04T06:15:00Z,`
	`2020-10-01T14:15Z/2020-11-20T16:00Z,`
	`2020-10-01T14:15Z/P2DT5H45M,`
	`P1DT1H45M/2020-11-01T15:15Z,`
	`PT21H45M`

The repeating or simple interval has to conform to the ISO-8601 standard.

- Example 1: For setting repetitive intervals with 'R[n]' where n represents the number of repetitions and interval 'start date' and the 'end date' we use 'R3/2020-10-01T14:15:00Z/2020-10-04T06:15:00Z'.
- Example 2: For setting repetitive intervals with 'R[n]' where n represents the number of repetitions and interval 'start date' and the 'duration' we use 'R3/2020-10-01T14:15:00Z/P2DT5H45M'.
- Example 3: For setting repetitive intervals with 'R[n]' where n represents the number of repetitions and interval 'duration' and the 'end date' we use 'R3/P1DT1H45M/2020-10-04T06:15:00Z'.
- Example 4: For setting repetitive intervals based on interval 'start date' and the 'end date' we use '2020-10-01T14:15Z/2020-11-20T16:00Z'.
- Example 5: For setting repetitive intervals based on interval 'start date' and 'duration' we use '2020-10-01T14:15Z/P2DT5H45M'.
- Example 6: For setting repetitive intervals based on interval 'duration' and the 'end date' we use 'P1DT1H45M/2020-11-01T14:15Z'.
- Example 7: For setting repetitive intervals based only on 'duration' which will go in past from instance of now we use 'PT21H45M'.

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`"https://graph.microsoft.com"`
Example Values	`"https://graph.microsoft.com"`

- Documentation on beta endpoint reference

Client ID

This parameter should contain part of the credentials used for the OAuth2 authentication with client ID and client secret.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. the response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and
- tenantID (this is the ID of the underlying Azure Active Directory).

Client Secret

This parameter should contain the Application Secret that has been generated inside of the app in the app registration portal. Setting this field to `null` will override the default value.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Supply EITHER a client secret OR a private key AND a certificate. In order to execute the connector it is required to set up an authorized app (service principal) in Azure that has been assigned the Reader role. The simplest way to achieve that is to use the Azure command line interface (CLI) like described in the official documentation. The response contains the necessary credentials:

- appID (clientID)
- password (clientSecret), and

- tenantID (this is the ID of the underlying Azure Active Directory).

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with the public key to the account. Setting this field to `null` will override the default value.

Technical Name	`private_key`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

Instead of authentication with a Client Secret, one can use a certificate and private key. According to the official documentation the certificate can be used wherever a client secret is used, but your experiences might vary. The key pair (private key and certificate) must be generated on a trusted machine with openssl. The key pair an be generated so:

- `openssl req -x509`
  `-newkey rsa:4096`
  `-keyout key.pem`
  `-out cert.pem`
  `-days 365 -nodes`

The meta information (CN, Issuer, etc.) is technically not required, but one should set some reasonable values nevertheless. Set this parameter to the content of the file `key.pem`. Keep the key secret. Do NOT share it with anybody. Whoever has access to this key will be able to impersonate the application. Do NOT reuse keys for different application. Always generate a new keypair for every application.

X509 Certificate (PEM)

This parameter contains the X.509 certificate registered with the account. Setting this field to `null` will override the default value.

Technical Name	`certificate`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN CERTIFICATE-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASCBKowggSmAgEAA`
	`oIBAQD8pNLKhayHFAJ1ey5nTUGa9wPzOwjlmCgiLbyzw2`
	`2wQrhCBT+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fKTV4BgTmqWIyQ`
	`Xx/U4aNjoXBLzyvf1t4`
	`-----END CERTIFICATE-----`

During the generation of the Private Key, an associated public key (certificate) was written to the file cert.pem. On the Azure Portal, the certificate must be registered for the application of the Azure AD. Follow the official documentation for the detailed description. This parameter must be set to the content of the certificate (the file cert.pem). The certificate can be shared with anybody and cannot be abused for authentication.

Tenant

This parameter contains the directory tenant from which permissions are being requested. This can be in GUID or in a user friendly name format.

Technical Name	`tenant`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`999`
Example Values	`999`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter limits the number of requests issued in the time interval set by the parameter Rate Limiter Duration. It ensures, that the number of requests issued during the time period specified in the Rate Limiter Duration will not exceed the specified number. This can be used to avoid a "too many requests" error.

Technical Name	`rate_limiter_num_requests`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5, 20`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a globale maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Rate Limiter Duration

This parameter is used to set the time interval during which a number of requests that may not exceed the number of requests defined by the Rate Limiter Number parameter.

Technical Name	`rater_limiter_duration`
Category	Technical
Type	String
Default Value	`PT1S`
Example Values	`PT1S, PT1M, PT2H`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API has a global maximum of 2000 requests per second maximum. In practice, the real maximum is much lower, about 5-50 requests per second.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Max Parallel Requests

This parameter defines the maximum number of requests that can be issued in parallel. If it is set to `null`, the default value will be overridden.

Technical Name	`max_parallel_requests`
Category	Technical
Type	Integer `null`
Default Value	`6`
Example Values	`6`

⚠	**WARNING**

	A higher number of parallel requests makes the connector faster, but increases the risk of getting "Too Many Requests" errors.

Extracted Data

Endpoint:	`https://login.microsoftonline.com/{tenant}/oauth2/v2.0/token`
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://docs.microsoft.com/graph/auth-v2-service#4-get-an-access-token

Endpoint:	`{+serverUrl}/beta/auditLogs/signIns`
Description:	Get the sign-in data
Permissions:	`AuditLog.Read.All`
Extracted Fields:	`createdDateTime`, `userDisplayName`, `userPrincipalName`, `userId`, `appId`, `appDisplayName`, `status`
Documentation:	https://docs.microsoft.com/graph/api/signin-list?view=graph-rest-beta&tabs=http

Tables

Table	Column	Type
`sign_ins`	• `appDisplayName` • `appId` • `createdDateTime` • `userDisplayName` • `userId` • `userPrincipalName`	• `String` • `String` • `String` • `String` • `String` • `String`

Microsoft SQL Server

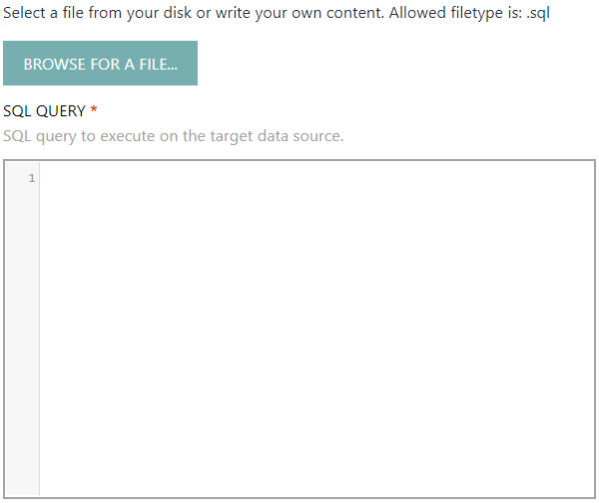
This connector is used to connect to a target Microsoft SQL Server database and collect customized information. The exact information that are collected are defined by the SQL query that is being executed.

Prerequisites

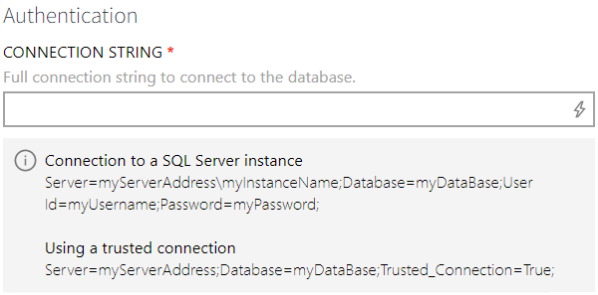
In order to use the Microsoft SQL Server connector a valid database connection string and a query that is used to select the necessary information is needed.

The user account that is used for the authentication with the database needs at least read permissions for the information requested by the query.

Connector Setup



- In the **Configuration** tab, either attach an `.sql` file from disk or manually write an SQL query in the **SQL QUERY** field. This is the query that will be executed on the target data source.



- In the **Connection** tab, enter the full connection string to the database into the **CONNECTION STRING** field.
  - Example string for the connection to an SQL Server instance:
    ```
    Server=myServerAddress
    \myInstanceName;
    DataBase=myDataBase;UserId=myUsern
    ame;
    Password=myPassword;
    ```
  - Example string when using a trusted connection:
    ```
    Server=myServerAddress;
    Database=myDataBase;
    ```

```
Trusted_Connection=True;
```

Connector Parameters

Configuration

SQL Query

This parameter contains the SQL query (`.sql` file) to extecute on the target data source.

Technical Name	`query`
Category	Functional
Type	Code
Default Value	n/a
Example Values	

Authentication

Connection String

This parameter represents the full connection string to the database.

Technical Name	`connectionString`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Extracted Data

The extracted data depends on the query that is being executed.

Mobileiron V1

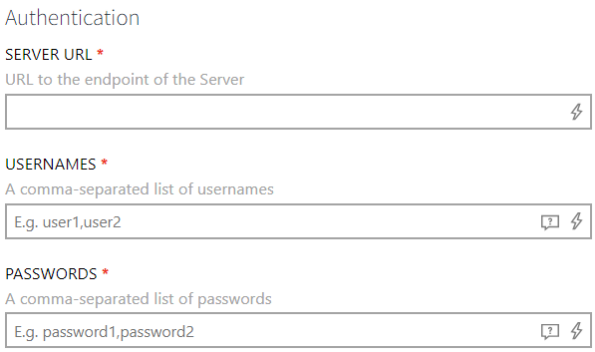
Connects to the MobilIron API version 1 to fetch devices and software inventories.

Prerequisites

For the authentication there are two methods:

1. Use one API user and password.
2. Use a list of users and the associated password list.
   With the second method, one can use multiple API accounts to fetch the inventories faster. This is necessary since the API is heavily rate-limited with 3 requests / minute.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter one or more usernames (as a comma-separated list) into the **USERNAMES** field. Only one username is mandatory, but using multiple usernames can accelerate inventories. When using multiple users, the username and the corresponding password must have the same positions in the list and the number of usernames and passwords must be identical.
- Enter one or more passwords (as a comma-separated list) into the **PASSWORDS** field. When using multiple users, the username and the corresponding password must have the same positions in the list and the number of usernames and passwords must be identical.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Only Default Partition

This parameter defines if only the default partition is being fetched and all other partitions are discarded.

Technical Name	`only_default_partition`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`

Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains a comma-separated list of usernames.

Technical Name	`usernames`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`user1,user2`

It is sufficient to give only one username/password pair, but with multiple credentials, step 3 (inventories) can be accelerated. The usernames and corresponding passwords must have the same position, and the number of usernames and passwords must be the same.

Password

This parameter contains a comma-separated list of passwords.

Technical Name	`passwords`
Category	Authentication
Type	String
Default Value	n/a
Example Values	password1,password2

It is sufficient to give only one username/password pair, but with multiple credentials, step 3 (inventories) can be accelerated. The usernames and corresponding passwords must have the same position, and the number of usernames and passwords must be the same.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter limits the number of requests issued in the time interval set by the parameter Rate Limiter Duration. It ensures, that the number of requests issued during the time period specified in the Rate Limiter Duration will not exceed the specified number. This can be used to avoid a "too many requests" error.

Technical Name	`inventory_rate_limiter_num_requests`
Category	Technical
Type	Integer
Default Value	`3`
Example Values	`3, 20`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API allows only 3 requests per minute for the device inventory. This parameter applies only to the device inventories.

Rate Limiter Duration

This parameter is used to set the time interval during which a number of requests that may not exceed the number of requests defined by the Rate Limiter Number parameter.

Technical Name	`inventory_rate_limiter_duration`
Category	Technical
Type	String
Default Value	`PT1M`
Example Values	`PT1M, PT1M, PT2H`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API documentation and adapt those parameters accordingly. The API allows only 3 requests per minute for the device inventory. This parameter applies only to the device inventories.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

The time (in milliseconds) after which a running request aborts. Set to 'null' for system's default timeout.

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v1/tenant/partition/device`
Description:	Get partitions
Documentation:	n/a

Endpoint:	`{+serverUrl}/api/v1/device`
Description:	Get devices
Documentation:	n/a

Endpoint:	`{+serverUrl}/api/v1/app/inventory`
Description:	Get software inventories
Documentation:	n/a

Tables

Table	Column	Type
devices	• appType • deviceModel • deviceName • displayName • emailAddress • firstName • id • lastCheckin • lastName • manufacturer • partition • platformType • platformVersion • registrationState • serialNumber • uid	• String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String
inventory	• appType • deviceId • displayVersion • identifier • model • name • platformType • version	• String • String • String • String • String • String • String • String

Mobileiron V2

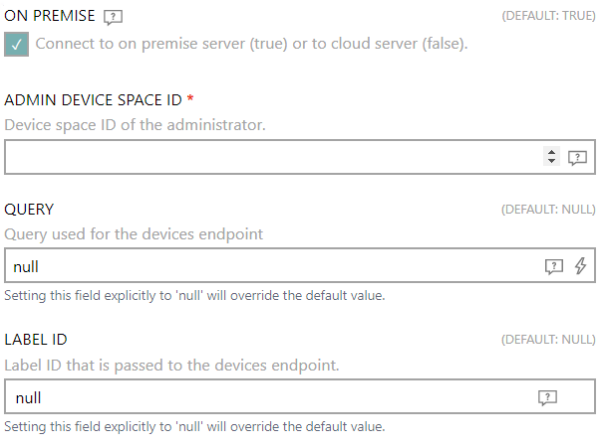
Connects to the MobileIron Core REST API v2, to either on-premise or cloud servers. It fetches devices and software inventories. There is no online documentation, and the user manual is not publicly available. This connector was developed according to the user manual with the following version:

MobileIron V2 API Guide
MobileIron Core 10.5.0.0
November 6, 2019

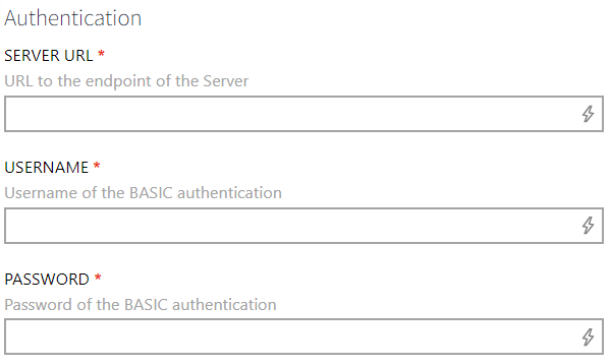
Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- In the **Configuration** tab, enter the Device Space ID of the administrator into the **ADMIN DEVICE SPACE ID** field.



- In the **Connection** tab, enter the URL to the endpoint of the sever into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

On Premise

This parameter defines if the Connector will connect to an on premise server (`true`) or to a cloud server (`false`).

Technical Name	`on_premise`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

This connector can connect to the cloud or to the on-premise server. The only difference is that '/rest' must be prepended before the request URL (See MobileIron manual p. 32 (pdf p. 4)).

Admin Device Space ID

This parameter defines the device space ID of the administrator

Technical Name	`admin_device_space_id`
Category	Functional
Type	Integer
Default Value	n/a
Example Values	

See MobileIron user manual p.202 (pdf p. 174).

Query

This parameter contains the query used for the devices endpoint.

Technical Name	`query`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

Used for the 'query' parameter of the 'GET /api/v2/devices' endpoint. If null, an empty query is used to fetch all data, and the label id is **not** passed to the query. See MobileIron user manual p. 202 (pdf p. 174).

Label ID

This parameter contains the Label ID that is passed to the devices endpoint.

Technical Name	`label_id`
Category	Functional
Type	Integer `null`
Default Value	`null`
Example Values	`null`

See Mobiliron user manual p. 202 (pdf p.174).

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username used for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password used for the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer

a request will take. On the other hand, a high page size will decrease the total number necessary requests.

> **Be aware:**
> Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v2/ping`
Description:	Query the API version on premise.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/api/v2/ping`
Description:	Query the API version.
Documentation:	n/a

Endpoint:	`{+serverUrl}/api/v2/devices`
Description:	Get the devices on premise.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/api/v2/devices`
Description:	Get the devices.
Documentation:	n/a

Endpoint:	`{+serverUrl}/api/v2/devices/appinventory`
Description:	Get the software inventories on premise.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/api/v2/devices/appinventory`
Description:	Get the software inventories.
Documentation:	n/a

Tables

Table	Column	Type
devices	• androidAfwCapable • androidAttestation • anroidRestritionStatus • commonBackgroundStatus • commonBatteryLevel • commonCcmMigrationStatus • commonClientName • commonClientVersion • commonCompliant • commonCreationDate • commonCurrentPhoneNumber • commonDataProtectionEnabled • commonDeviceAdminEnabled • commonDeviceIsCompromised • commonDeviceSpaceName • commonHomeCountryName • commonHomeOperatorName • commonId • commonImei • commonImsi • commonIpAddress • commonLanguage • commonLastConnectedAt • commonLocale • commonManufacturer • commonMdmManaged • commonMemoryCapacity • commonMemoryFree • commonMiclientLastConnectedAt • commonModel • commonModelName • commonOsVersion • commonOwner • commonPlatform • commonPlatformName • commonQuarantined • commonRegistrationDate • commonSerialNumber • commonStatus • commonStorageCapacity • commonStorageFree • commonUuid • userDisplayName • userEmailAddress • userUserId	• Boolean • String • String • String • String • String • String • String • Boolean • String • String • Boolean • Boolean • Boolean • String • String • String • String • String • String • String • String • String • String • String • Boolean • String • String • String • String • String • String • String • String • Boolean • String • String • String • String • String • String • String • String • String
app_inventories	• deviceUuid	• String

Table	Column	Type
	• identifier • name • platformType • status • version	• String • String • String • String • String
connections	• deviceUuid • identifier • state	• String • String • String

Monday

Connects to the Monday GraphQL API and fetches the users.

Prerequisites

Currently, there are two methods that can be used to access the personal API tokens of an account. The methods are depending on the user level. Admin users can use both methods to acquire their API tokens. Member users can only access their API tokens from their Developer tabs.

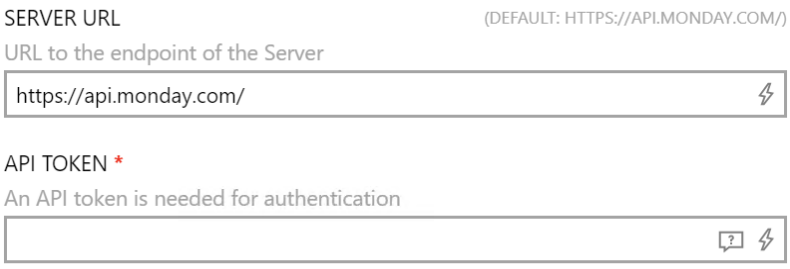
Admin Tab (Admin Users Only)

1. Log into the Monday account.
2. Click on the avatar in the bottom left corner.
3. Select **Admin**.
4. Go to the **API** section.
5. Generate an **API v2 Token**.
6. Copy the token.

Developer Tab (Admin Users and Member Users)

1. Log into the Monday account.
2. Click on the avatar in the bottom left corner.
3. Select **Developer**.
4. Click on the **Developer** dropdown menu located in the top menu.
5. Select the **My Access Tokens** option.
6. Click on the **Show** button to show the API token and copy it.

Connector Setup



- The **SERVER URL** field already contains the URL to the endpoint of the server.
- Enter the API token that is needed for authentication into the **API TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	use_new_naming

Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.monday.com/`
Example Values	`https://api.monday.com/`

API Token

This parameter contains the API token that is required for authentication.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The authorization process is based on an API Token. The process of generating a token is described in the official documentation.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v2`
Description:	GraphQL API endpoint. Users are fetched via GraphQL
Documentation:	https://api.developer.monday.com/docs/users-queries-1

Tables

Table	Column	Type
`users`	• `createdAt` • `email` • `name`	• `String` • `String` • `String`

New Relic

The connector connects to the New Relic API and fetches users.

Prerequisites

New Relic offers a variety of APIs and SDKs that can be used to:

- Send data to New Relic.
- Retrieve data from New Relic.
- View and configure settings.

The New Relic connector requires the following parameters to connect to the New Relic REST API:

- **API Key**: The REST API key is required to use the New Relic REST APIs.
- **Server URL**: The URL to the endpoint of the serer. By default: https://api.newrelic.com.

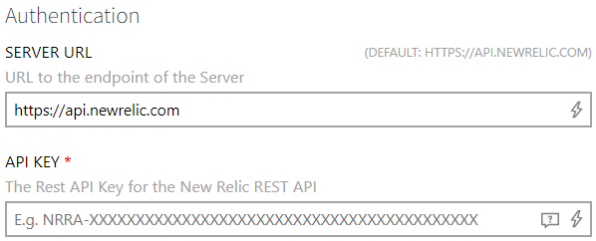
To activate API access:

- Login to the New Relic account.
- Click on the account dropdown in the upper right-hand corner of the New Relic UI.
- Select **Account Settings** > **Integrations** > **API keys**.
- Select **Regenerate REST API key**.
- Select **(Show key)** to view the new REST API key.

More information can be found here.

> **Note:**
> Unless otherwise specified, all authorizing accounts must have **admin level permissions** to be able to grant access rights to read users and activities.

Connector Setup



- Enter the REST API Key for the New Relic REST API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String

Default Value	`https://api.newrelic.com`
Example Values	`https://api.newrelic.com`

API Key

This parameter contains the Rest API Key for the New Relic Rest API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`NRRA-XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX`

The API key can be extracted from the Integrations page here. The whole process of using the REST API key is described here. Since one can generated only one API Key it is advised to create a new account for every integeration.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical

Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of

rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v2/users.json`
Description:	List users.
Documentation:	https://rpm.eu.newrelic.com/api/explore/users/list

Tables

Table	Column	Type
`users`	• `email` • `firstName` • `id` • `lastName` • `role`	• `String` • `String` • `Integer` • `String` • `String`

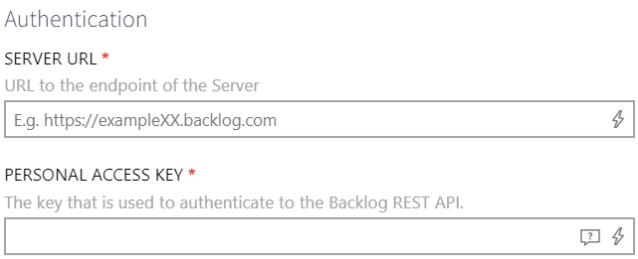
Nulab Backlog

Connects to the Backlog REST API. It connects to the users, license, diskUsage, projects endpoints and writes users, license, diskUsage, diskUsageProjects, and projects.

Prerequisites

It is necessary to create an API Key in the Nulab Backlog environment. This API Key will be used as the Personal Access Key that is necessary to authenticate with the Backlog REST API.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the key that is used for the authentication with the Backlog REST API into the **PERSONAL ACCESS KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://exampleXX.backlog.com`

Personal Access Key

This parameter contains the key that is used to authenticate with the Backlog REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The key can only be generated by Admin users. The process of generating a key is described in

the official documentation. The application registration link can be found here.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v2/users`
Description:	Fetch users. Requires the Administration role.
Documentation:	https://developer.nulab.com/docs/backlog/api/2/get-user-list/#

Endpoint:	`{+serverUrl}/api/v2/space/licence`
Description:	Fetch license.
Documentation:	https://developer.nulab.com/docs/backlog/api/2/get-licence/#

Endpoint:	`{+serverUrl}/api/v2/space/diskUsage`
Description:	Fetch disk usage.
Documentation:	https://developer.nulab.com/docs/backlog/api/2/get-space-disk-usage/#

Endpoint:	`{+serverUrl}/api/v2/projects`
Description:	Fetch projects.
Documentation:	https://developer.nulab.com/docs/backlog/api/2/get-project-list/#methodl

Tables

Table	Column	Type
users	• id • keyword • lang • mailAddress • name • nulabAccountName • nulabId • roleType • uniqueId • userId	• Integer • String • String • String • String • String • String • String • String • String
licence	• active • attachmentLimit • attachmentLimitPerFile • attachmentNumLimit • attribute • attributeLimit • burndown • commentLimit • componentLimit • created • createdUserId • fileSharing • gantt • git • initialCosts • issueLimit • issueTemplate • licenceKey • licenceTypeId • limitDate • nulabAccount • nulabAppsIntegration • parentChildIssue • paymentId • paymentMonth • postIssueByMail • price • projectLimit • pullRequestAttachmentLimitPerFile • pullRequestAttachmentNumLimit • remoteAddress • remoteAddressLimit • startedOn • storageLimit • subscribedOn • subversion	• Boolean • Integer • Integer • Integer • Boolean • Integer • Boolean • Integer • Integer • String • Integer • Boolean • Boolean • Boolean • Integer • Integer • Boolean • String • Integer • String • Boolean • Boolean • Boolean • String • String • Boolean • Integer • Integer • Integer • Integer • Boolean • Integer • String • Integer • String • Boolean

Table	Column	Type
	• subversionExternal • trialExpiryDate • updated • updatedUserId • userLimit • versionLimit • wikiAttachment • wikiAttachmentLimitPerFile • wikiAttachmentNumLimit	• Boolean • String • String • Integer • Integer • Integer • Boolean • Integer • Integer
disk_usage	• capacity • file • git • gitLfs • issue • pullRequest • subversion • wiki	• Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer
disk_usage_project	• file • git • gitLFS • issue • projectId • pullRequest • subversion • wiki	• Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer
projects	• archived • chartEnabled • displayOrder • id • name • projectKey • projectLeaderCanEditProjectLeader • subtaskingEnabled • textFormattingRule • useDevAttributes • useWikiTreeView	• Boolean • Boolean • Integer • Integer • String • String • Boolean • Boolean • String • Boolean • Boolean

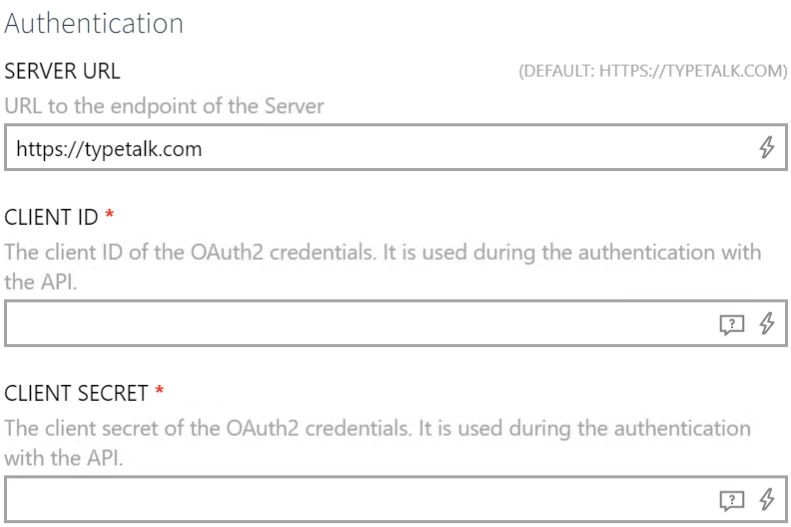
Nulab Typetalk

Connects to the Typetalk REST API and fetches organization data.

Prerequisites

In order to use the connector, RayVentory Data Hub needs to be registered on the Developer Application page of Nulab Typetalk. The Developer Application page can be found here: https://typetalk.com/my/develop/applications.
When registering RayVentory Data Hub select **Client Credentials** as Grant Type in order to use OAuth authentication.

Connector Setup



- Enter the Client ID of the OAuth credentials into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth credentials into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://typetalk.com`
Example Values	`https://typetalk.com`

Client ID

This parameter should contain the Client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The Client ID and the Client Secret are generated during the Application Setup. The whole process is described in the official documentation.

Client Secret

This parameter should contain the Client Secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The Client ID and the Client Secret are generated during the Application Setup. The whole process is described in the official documentation.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/oauth2/access_token`
Description:	Authenticates with the API and returns a short lived access token in exchange for valid credentials.
Documentation:	https://developer.nublab.com/docs/typetalk/auth/#client

Endpoint:	`{+serverUrl}/api/v1/spaces`
Description:	Get Typetalk organizations. Requires the `my` scope.
Documentation:	https://developer.nulab.com/docs/typetalk/api/1/get-spaces/#

Tables

Table	Column	Type
`organizations`	• `createdAt` • `enabled` • `isPaymentAdmin` • `key` • `limitNumberOfUsers` • `limitTotalAttachmentSize` • `myPlanEnabled` • `myRole` • `name` • `numberOfUsers` • `planKey` • `planName` • `totalAttachmentSize` • `UpdateAt`	• `String` • `Boolean` • `Boolean` • `String` • `Integer` • `Integer` • `Boolean` • `String` • `String` • `Integer` • `String` • `String` • `Integer` • `String`

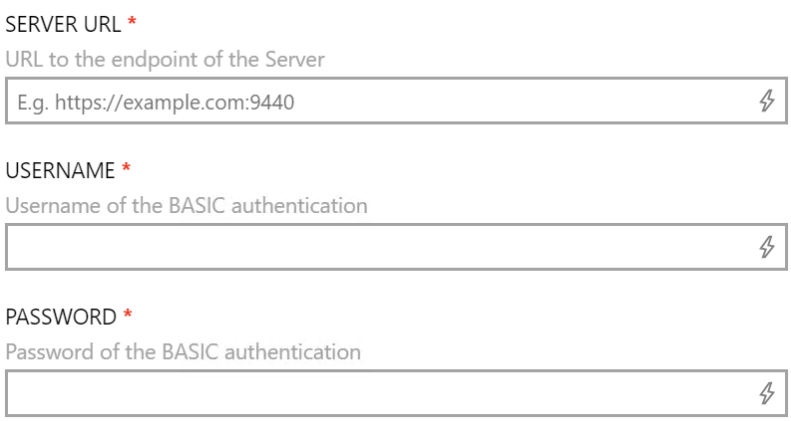
Nutanix Prism Central

Connects to the Nutanix Rest Prism Central API and fetches VMs, clusters, and hosts. The user of the connector must have the Prism Viewer role in PrismCentral.

Prerequisites

For authentication with the Nutanix Prism Central API the URL of the server, the username of a valid user and the corresponding password are needed.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`https://example.com:9440`

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Page Size

This parameter specifies the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`

Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will

fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/nutanix/v3/vms/list`
Description:	Fetch VMs.
Documentation:	https://www.nutanix.dev/api_references/prism-central-v3/#/b3A6MjU1ODc3NjM-get-a-list-of-existing-v-ms

Endpoint:	`{+serverUrl}/api/nutanix/v3/clusters/list`
Description:	Fetch clusters.
Documentation:	https://www.nutanix.dev/api_references/prism-central-v3/#/b3A6MjU1ODczNzM-get-a-list-of-existing-clusters

Endpoint:	`{+serverUrl}/api/nutanix/v3/hosts/list`
Description:	Fetch hosts.
Documentation:	https://www.nutanix.dev/api_references/prism-central-v3/#/b3A6MjU1oDc0ODQ-get-a-list-of-existing-hosts

Tables

Table	Column	Type
`vms`	• `cluster` • `cores` • `id`	• `String` • `Integer` • `String`

Table	Column	Type
	• name • operatingSystem • powerState	• String • String • String
clusters	• id • name	• String • String
hosts	• clusterId • coreCount • cpuCount • cpuModel • id • name	• String • Integer • Integer • String • String • String

ODBC

This connector can be used to connect to different databases using a number of ODBC drivers.

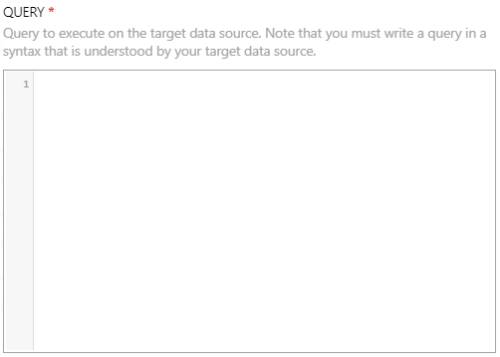
Prerequisites

The ODBC driver must be installed on the machine where the agent is installed. Follow the instructions of the manufacturer of the ODBC driver used for the installation and the configuration of the driver on Windows. Afterwards, specify the correct connection string to the driver in the RayVentory Data Hub task. How the final connection string will look depends on the driver that is installed.

Be aware:
The query that is to be executed on the target database has to be written in a syntax that is understood by the database. If the target database only understands MySQL, it must be written in the MySQL syntax.

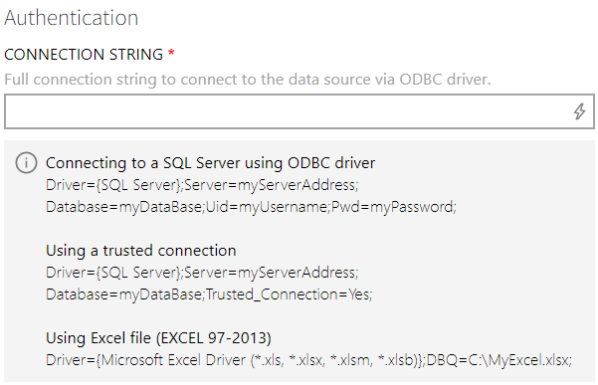
Examples on how to configure the ODBC Connector for the connection with an OracleDB using an ODBC Oracle Instance Client Driver can be found in the *Administration and User Guide* under *Data Hub> Guides and How-Tos> Connecting to OracleDB with ODBC Connector.*

Connector Setup



- In the **Configuration** tab, enter an SQL query in the **SQL QUERY** field. This is the query that will be executed on the target data source.

- In the **Connection** tab, enter the full connection string to the data source using the ODBC driver into the **CONNECTION STRING** field.
  - Example string for the connection to an SQL Server instance:
    ```
    Driver={SQL Server};Server=myServerAddress;Database=myDataBase;Uid=myUsername;Pwd=myPassword;
    ```



- Example string when using a trusted connection:
  ```
  Driver={SQL Server};Server=myServerAddress;Database=myDataBase;Trusted_Connection=Yes;
  ```
- Example when using an Excel file (EXCEL 97-2013)
  ```
  Driver={Microsoft Excel Driver (*.xls, *.xlsx, *xlsm, *.xlsb)};DBQ=C:\MyExcel.xlsx;
  ```

Connector Parameters

Configuration

Query

This parameter contains the query that is to be executed on the target data source.

Technical Name	`query`
Category	Functional
Type	Code
Default Value	n/a
Example Values	

It is necessary to write the query in a syntax that is understood by the target data source.

Authentication

Connection String

This parameter contains the full connection string to connect to the data source via the ODBC driver.

Technical Name	`connectionString`
Category	Authentication
Type	String

Default Value	n/a
Example Values	

Extracted Data

The extracted data depends on the query that is being executed.

okta

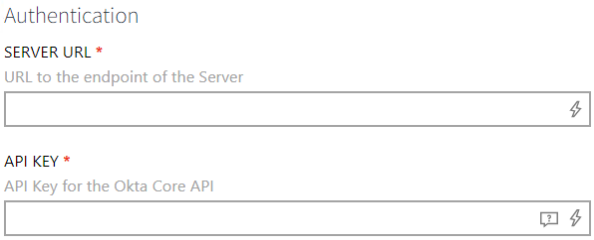
Connects to the Core Okta REST API to retrieve user and app data.

Prerequisites

To use the connector an API Token for the connection with the Core Okta REST API is needed. The API Token can be created by executing the following steps:

1. Sign in to Okta with an account that has admin privileges.
2. In the **Admin Console**, select **API** from the **Security** menu and select the **Tokens** tab.
3. Click the **Create Token** button.
4. Enter a descriptive name for the token (for example: RayVentory Data Hub) and click on the **Create Token** button.
5. Save the value of the token to a secure location. It will only be accessible this once and if it is lost the token needs to be deleted and a new token has to be created.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key for the Core Okta API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

API Key

This parameter contains the Rest API Key for the Okta Core API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

An Account API Key has to be created in the security settings of the account dashboard of the Okta instance as described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter defines the rate limit per minute.

Technical Name	`rate_limiter_num_requests`
Category	
Type	Integer
Default Value	`100`
Example Values	`100, 20`

Changing the page size should only be necessary if you run into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/api/v1/users
Description:	List all registered users.
Documentation:	https://developer.okta.com/docs/reference/api/users/#lists-users

Endpoint:	{+serverUrl}/api/v1/app
Description:	List all registered apps.
Documentation:	https://developer.okta.com/docs/reference/api/apps/#list-applications

Endpoint:	{+serverUrl}/api/v1/meta/types/user

Description:	List all types of user accounts.
Documentation:	https://developer.okta.com/docs/reference/api/user-types

Tables

Table	Column	Type
users	• activated • created • email • firstName • id • lastLogin • lastName • lastUpdated • login • mobilePhone • passwordChanged • secondEmail • status • statusChanged • typeId	• String • String • String • String • String • String • String • String • String • String • String • String • String • String • String
apps	• id • label • lastUpdated • name • signOnMode • status	• String • String • String • String • String • String
user_types	• created • createdBy • default • description • displayName • id • lastUpdated • lastUpdatedBy • name	• String • String • Boolean • String • String • String • String • String • String

OpenStack

Connects to the OpenStack API and fetches the following data:

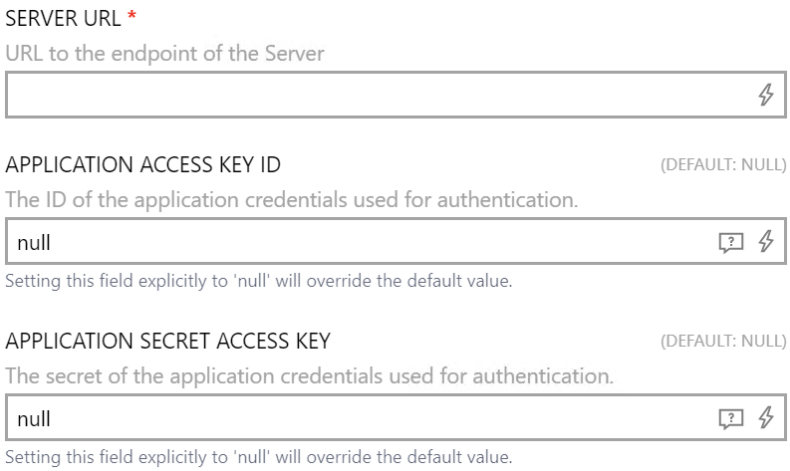
- servers with:
  - addresses
  - metadata
  - tags
  - trusted image certificates
  - server topology
  - hypervisors

For the connection the application credentials are used.

Prerequisites

The OpenStack connector uses Application Credentials to connect to OpenStack. These credentials are created by the OpenStack user that will be used. The credentials are limited to the lifespan of the user that has been used to create them. The privileges of the Application Credentials is limited to the privileges of the user. They can be further limited to only be comprised of a subset of the privileges of the user.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the ID of the application credentials used for authentication into the **APPLICATION ACCESS KEY ID** field. By default, the field is set to `null`.
- Enter the secret of the application credentials used for authentication into the **APPLICATION SECRET ACCESS KEY** field. By default, the field is set to `null`.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`

Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Open Stack Microversion

This parameter can be used to downgrade the microversion version if the client only supports an older micoversion data. This can lead to incomplete data.

Technical Name	`open_stack_microversion`
Category	Functional
Type	String
Default Value	`2.63`
Example Values	`2.63`

The connector requires Microversion 2.63. It might be possible to downgrade the version but expect incomplete data. More information about the Microversion can be found in the official documentation links:

- https://docs.openstack.org/api-guide/compute/microversions.html
- https://docs.openstack.org/nova/latest/contributor/microversions.html

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Application Access Key Id

This parameter contains the ID of the application credentials used for authentication.

Technical Name	`application_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

How to get the application credentials is described in the official documentation.

Application Secret Access Key

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`

How to get the application credentials is described in the official documentation.

Task Parameters

Page Size

This parameter specifies the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`

Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v3/auth/tokens`
Description:	Authenticate with application credentials. Requesting a scope is not allowed, as the scope is retrieved from the application credentials.
Documentation:	https://docs.openstack.org/api-ref/identity/v3/?expanded=authenticating-with-an-application-credential-detail

Endpoint:	`{+serverUrl}/servers/detail`
Description:	For each server, shows server details including config drive, extended status, and server usage.
Documentation:	https://docs.openstack.org/api-ref/compute/#list-servers-detailed

Endpoint:	`{+serverUrl}/servers/{serverId}/topology`
Description:	Shows NUMA topoogy information for a server.
Documentation:	https://docs.openstack.org/api-ref/compute/#servers-topology-servers-topology

Endpoint:	`{+serverUrl}/os-hypervisors/details`
Description:	Lists hypervisors details.
Documentation:	https://docs.openstack.org/api-ref/compute/#list-hypervisors-details

Tables

Table	Column	Type
servers	• accessIPv4 • accessIPv6 • availabilityZone • configDrive • created • description • disk • diskConfig • ephemral • host • hostId • hostStatus • hostname • hypervisorHostname • id • instanceName • kernelId • keyName • launchIndex • launchedAt • locked • lockedReason • name • originalName • powerState • progress • ram • ramdiskId • reservationId • rootDeviceName • status • swap • taskState • tenantId • terminatedAt • updated • userData • userId • vcpus • vmState	• String • String • String • String • String • String • Integer • String • Integer • String • String • String • String • String • String • String • String • String • Integer • String • Boolean • String • String • String • Integer • Integer • Integer • String • String • String • String • Integer • String • String • String • String • String • String • String • String
server_addresses	• addr • addressType • macAddress • serverId • type • version	• String • String • String • String • String • Integer

Table	Column	Type
server_metadata	• key • serverId • value	• String • String • String
server_tags	• serverId • tags	• String • String
server_trusted_image_certificates	• serverId • trustedImageCertificates	• String • String
server_topology	• hostNode • memoryMb • pageSizeKb • phyiscalCpu • serverId • vcpuSet • virtualCpu	• Integer • Integer • Integer • Integer • String • String • Integer
hypervisors	• arch • cores • currentWorkload • disabledReason • diskAvailableLeast • freeDiskGb • freeRamMb • host • hostIp • hypervisorHostname • hypervisorType • hypervisorVersion • id • localGb • localGbUsed • memoryMb • memoryMbUsed • model • runningVms • serviceId • sockets • state • status • threads • vcpus • vcpusUsed • vendor	• String • Integer • Integer • String • Integer • Integer • Integer • String • String • String • String • Integer • Integer • Integer • Integer • Integer • Integer • String • Integer • Integer • Integer • String • String • Integer • Integer • Integer • String

PagerDuty

Connects to the PagerDuty REST API v2 and retrieves user data.

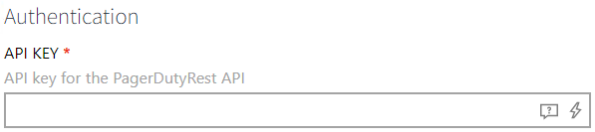
Prerequisites

In order to use the connector with the PagerDuty REST API an Account API token with read-only access is needed. This token can only be created by an account administrator. The token can be generated by executing the following steps:

1. Got to **Integrations** > **API Access Keys** and click on **Create New API Key**.
2. Enter a **Description** (for example: RayVentory Data Hub) and check the **Read-only** option.
3. Click on **Create Key**.
4. Copy the key to a secure location and click on the **Close** button.

If the key is lost, it is necessary to delete it and create a new key.

Connector Setup



- Enter the API key for the PagerDuty REST API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

API Key

This parameter contains an API key for the PagerDutyRest API

Technical Name	`api_key`
Category	Authentication
Allowed Types	String
Default Value	n/a
Example Values	

The API Key must be created by an administrator as described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`

Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://api.pagerduty.com/users/`

Description:	User endpoint of the PagerDuty REST API
Documentation:	https://developer.pagerduty.com/api-reference/reference/REST/openapiv3.json/paths/~1users/get

Tables

Table	Column	Type
users	• avaterUrl • billed • color • description • email • htmlUrl • id • invitationSent • jobTitle • name • role • self • summary • teamIds • timeZone • type	• String • Boolean • String • String • String • String • String • Boolean • String • String • String • String • String • String • String • String

Pipedrive

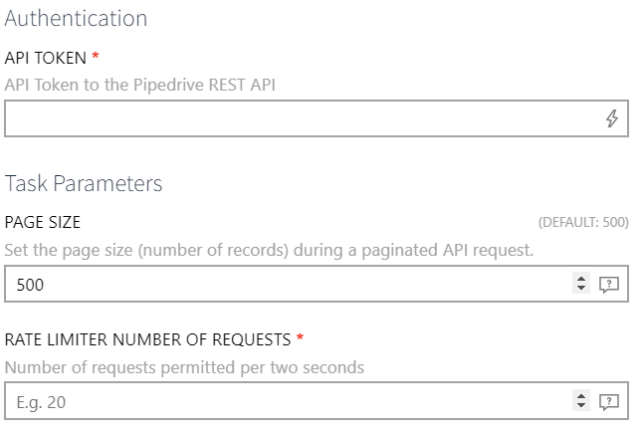
Connects to the Pipedrive REST API to retrieve user data.

Prerequisites

The API Token that is needed for the authentication with the Pipedrive REST API can be found at the following location: Account name (on the top right) > **Company settings** > **Personal preferences** > **API**. Alternatively the page can be opened directly by using the following URL: https://app.pipedrive.com/settings/api.

> **Be aware:**
> If a user is part of more than one company, he has a different API Token for every company that the user is part of.

Connector Setup



- Enter the API Token used for the authentication with the Pipedrive REST API into the API TOKEN field.
- Enter the number of requests that is permitted per two seconds into the **RATE LIMITER NUMBER OF REQUESTS** field. For this connector this field is mandatory and does not contain a default value.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

API Token

This parameter contains the API Token used for the authentication with the Pipedrive REST API.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter specifies the number of requests permitted per two seconds.

Technical Name	`rate_limiter_num_requests`
Category	Technical
Type	Integer
Default Value	n/a
Example Values	`20`

The rate limiter ensures that at most Rate Limiter Number of Requests are issued in a Rate Limiter Duration. If requests fail with a "too many requests" error, study the API information and adapt those parameters accordingly.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v1/users`
Description:	List all users.
Documentation:	https://developers.pipedrive.com/docs/api/v1/Users

Tables

Table	Column	Type
users	• activated • activeFlag • created • defaultCurrency • email • hasCreatedCompany • iconUrl • id • isAdmin • isYou • lang • lastLogin • locale • modified • name • phone • roleId • signupFlowVariation • timezoneName • timezoneOffset	• Boolean • Boolean • String • String • String • Boolean • String • Integer • Integer • Boolean • Integer • String • String • String • String • String • Integer • String • String • String

PowerShell

The PowerShell connector can be used to collect custom information from a target system by using PowerShell scripts.

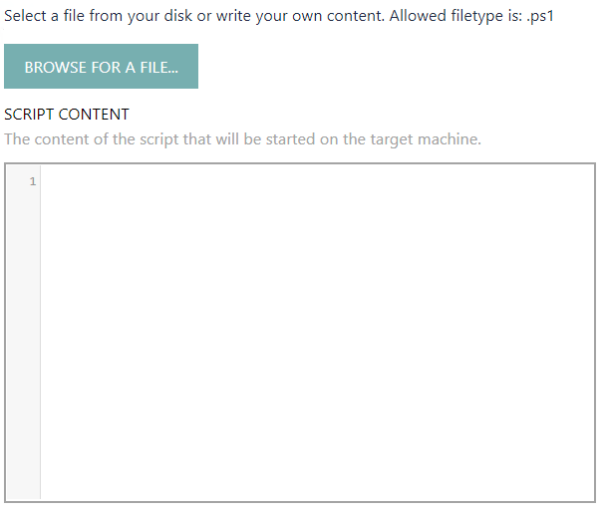
Prerequisites

In order to use the PowerShell connector it is recommended to prepare the script in advance using an IDE and test the script locally. Only afterwards, enter the script into the product configuration.

> **WARNING**
> The PowerShell script is executed with the permissions of the service user running the agent. The code can import other modules and execute all commands from the modules in scope. This may lead to potential security considerations, because anyone having access to the administration of tasks can use this feature to remotely execute the code on the agent machine.

Detailed information on how to use the PowerShell connector can be found in the *Administration and User Guide* in the *Data Hub > Guides and How-Tos > Using PowerShell Connector* section.

Connector Setup



- Either attach an `.ps1` file from disk or manually write PowerShell script into the **SCRIPT CONTENT** field. This is the script that will be executed on the target machine.

Connector Parameters

Configuration

Script Content

This parameter contains a script (`.ps1` file). The content of the script will be started on the target machine.

Technical Name	`script`
Category	Functional
Type	Code
Default Value	`n/a`
Example Values	

Extracted Data

The extracted data depends on the script that is being executed.

Proxmox

Connects to the Proxmox Rest API and fetches the users, nodes, and servers.

Prerequisites

In order to use the connector to connect to the Proxmox Rest API, a PVEAPI token is needed. To create the token, execute the following steps:

1. Log into the Proxmox web UI.
2. Select the **Datacenter** option from the left navigation menu.
3. Select **Users** from the left sub-navigation menu.
4. Click the **Add** button at the top of the main content area.
5. Enter the **Username API**, set the **Realm** to the Proxmox authentication server and set and confirm a password. Click on the **Add** button.
6. Select the **API Tokens** option from the left sub-navigation menu.
7. Select a descriptive username.
8. Enter a secret key into the **Token ID** field and click on the **Add** button.

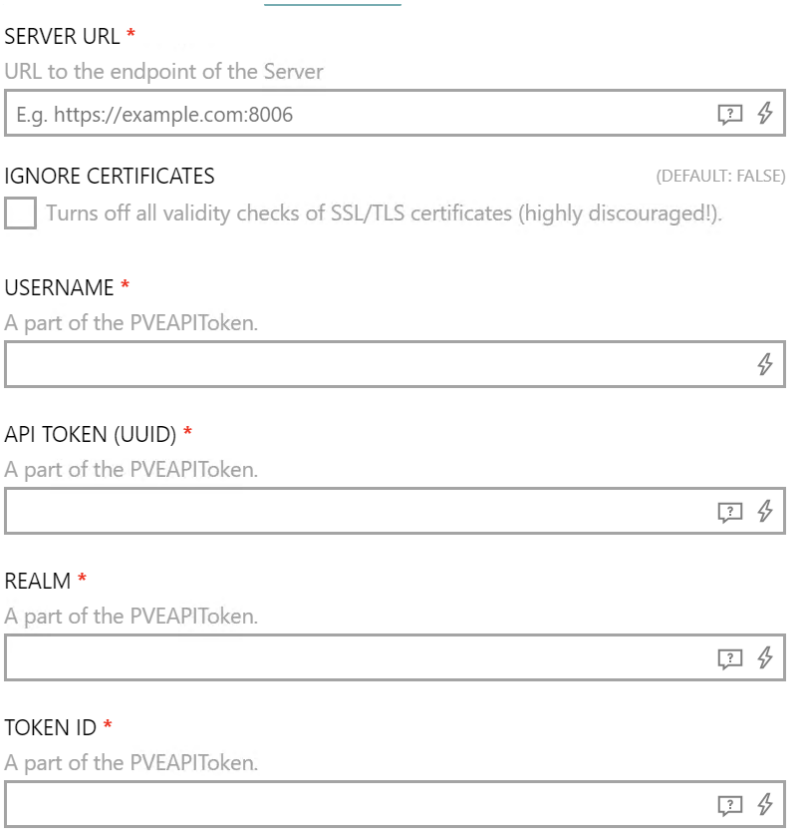
> **Tip:**
> In order to create a secure key, use a random string generator.

9. Save the displayed Token ID and Secret to a secure location, as it will not be possible to show them again.
10. Close the dialog.
11. Select the **Roles** option from the left sub-navigation menu.
12. Click the **Create** button at the top of the main content area.
13. Enter a name for the new APIAdmin and select all necessary privileges. Click on the **Create** button.

> **Note:**
> It is possible to fine-tune the privileges at a later point of time.

14. Select the **Permissions** option from the left sub-navigation menu.
15. Select **Add** > **User permission** at the top of the main content area.
14. Set the **Path**, select the user and set the **Role**. Click the **Add** button when finished.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- The **IGNORE CERTIFICATES** checkbox can be used to turn off all validity checks for SSL/TLS certificates. Turning of the validity checks is highly discouraged!
- Enter the username that is part of the PVEAPI token into the **USERNAME** field.
- Enter the API token that is part of the PVEAPI token into the **API TOKEN (UUID)** field.
- Enter the realm that is part of the PVEAPI token into the **REALM** field.
- Enter the Token ID that is part of the PVEAPI token into the **TOKEN ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`https://example.com:8006`

By default, the server listens on port 8006 as is described in the official documentation.

Ignore Certificates

This parameter can be used to turn off all validity checks of SSL/TLS certificates (highly discouraged!).

Technical Name	`ignore_certificates`
Category	Authentication
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

Username

This parameter contains a part of the PVEAPIToken.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

API Token (UUID)

This parameter contains a part of the PVEAPIToken.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The PVEAPIToken used for authentication is constructed from multiple parts. The required parts are username, realm, tokenId , and UUID (apiToken).

Realm

This parameter contains part of the PVEAPIToken.

Technical Name	`realm`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The PVEAPIToken used for authentication is constructed from multiple parts. The required parts are username, realm, tokenId , and UUID (apiToken).

Token Id

This parameter contains part of the PVEAPIToken.

Technical Name	`token_id`
Category	Authentication
Type	String
Default Value	`{empty}`

Example Values	

The PVEAPIToken used for authentication is constructed from multiple parts. The required parts are username, realm, tokenId , and UUID (apiToken).

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api2/json/access/users`
Description:	List users. The returned list is restricted to users that have `'User.Modify'` or `'Sys.Audit'` permissions on `'/access/groups'` or on a group the user belongs too. But it always includes the current (authenticated) user.
Documentation:	https://pve.promox.com/pve-docs/api-viewer/index.html#/access/users

Endpoint:	`{+serverUrl}/api2/json/nodes`
Description:	List nodes. Accessible by all authenticated users.
Documentation:	https://pve.proxmox.com/pve-docs/api-viewer/index.html#/nodes

Endpoint:	`{+serverUrl}/api2/json/cluster/metrics/server`
Description:	List configured metric servers. Required permissions: `'Sys.Audit'`.
Documentation:	https://pve.proxmox.com/pve-docs/api-viewer/index.html#/cluster/metrics/server

Tables

Table	Column	Type
users	• comment • email • enable • expire • firstname • groups • lastname • realmType • userid	• String • String • Boolean • Integer • String • String • String • String • String
nodes	• cpu • level • maxCpu • maxMem • mem • node • sslFingerprint • status • uptime	• Integer • String • Integer • Integer • Integer • String • String • String • Integer
servers	• disable • id • port • server • type	• Boolean • String • Integer • String • String

Qlik Sense

Connects to the Qlik Sense REST API to retrieve user and license data.

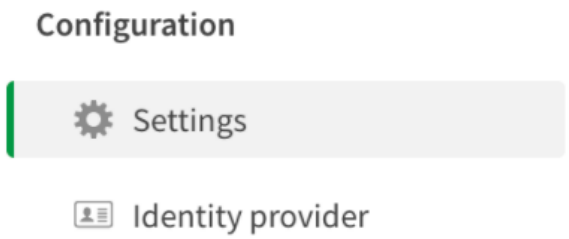
Prerequisites

In order to authenticate against the Qlik Sense REST API, the connector needs an API Key.

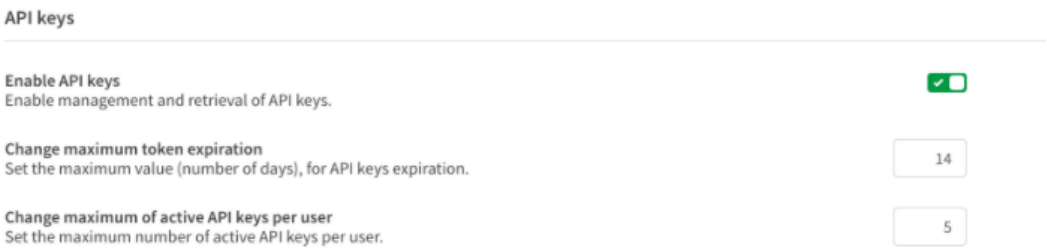
Generate an API Key

> **Note:**
> Only a `Tenant Admin` can access the management console settings and add roles to users. Therefore the following steps need to be performed by a user that has the `Tenant Admin` role.

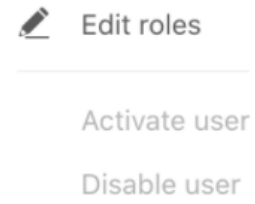
1. Inside of the **Management Console**, click on the **Settings** menu item on the left side of the screen.



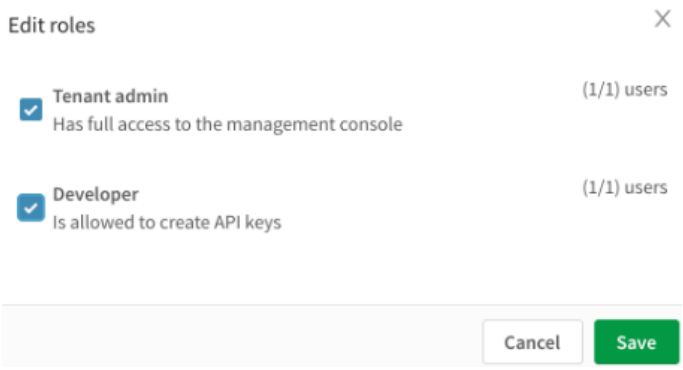
2. Scroll down to the API Keys section and turn on the API Keys for the tenant by clicking on the switch. Set both, the allowed maximum token age and the maximum number of active API keys per user in a tenant.



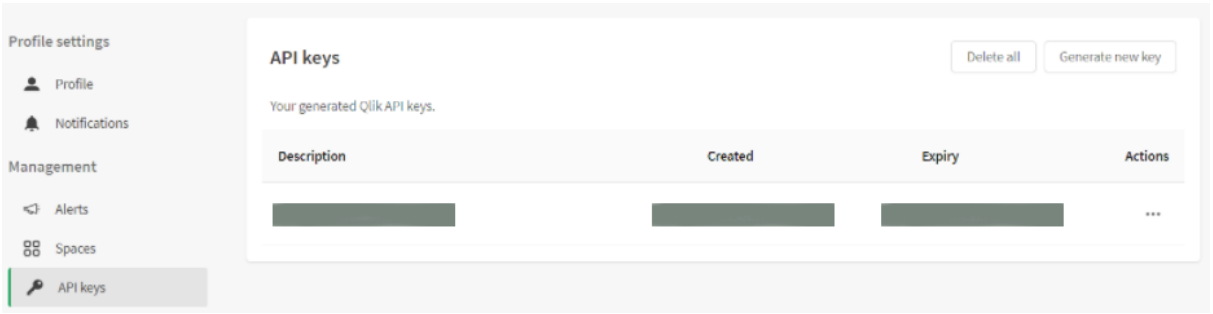
3. In order to generate an API Key, a user needs to have the `developer` role.
4. Click on **Users** in the **Management Console** to open the **Users** section and select **Edit roles** from the menu opening from the [...] button for the user which is to be used for the generation of the API Key.



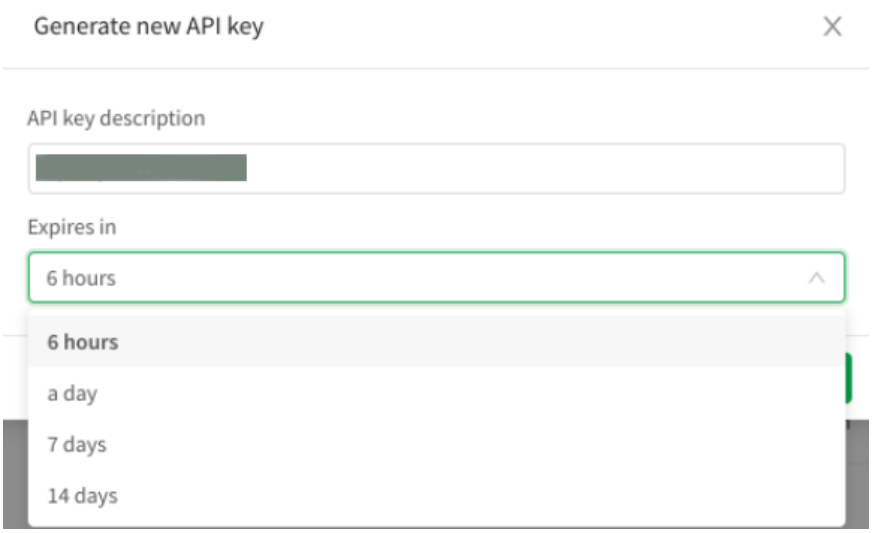
5. Check the **Developer** checkbox in order to give the user developer privileges in the tenant and save the change.



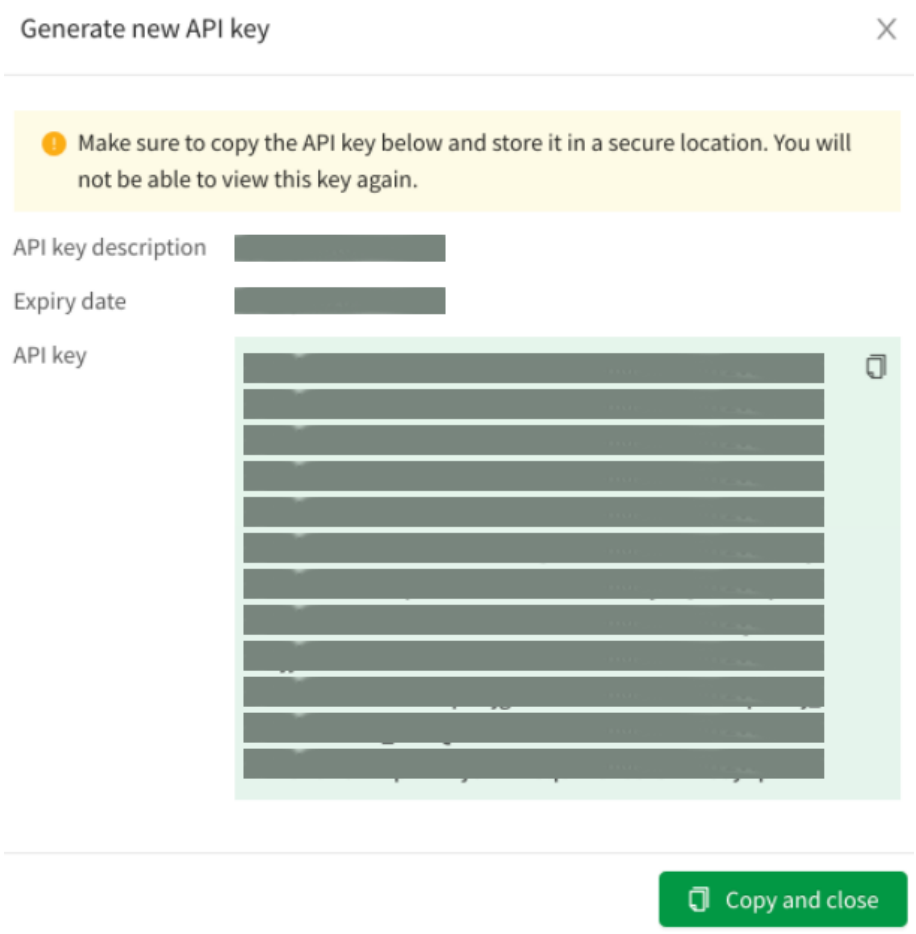
6. Log into the user that has received the necessary privileges and click on the avatar in the upper-right corner of the screen.
7. In the menu click on **API keys**. The **API keys** list for the user will now be displayed.
8. To create a new API key, click on the **Generate new key** button.



9. Enter a descriptive name for the API key (for example: RayVentory Data Hub) and set the expiration time from the dropdown list.



10.Click on the **Generate** button to create the API Key. The generated API Key appears.
11.Copy the API Key and safe it to a secure location.

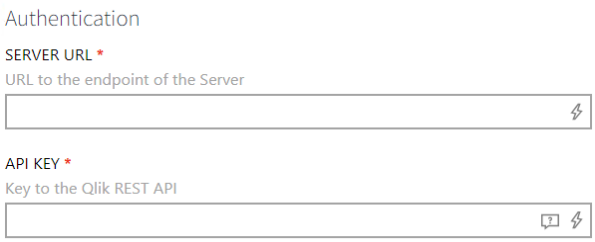


	Note:

	The API Key will only be displayed once. There is no way to see the specific key again. If the key is lost, a new key needs to be created.

The API Key can now be used with the connector.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the key to the Qlik REST API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String

Default Value	n/a
Example Values	

API Key

This parameter contains the key to the Qlik REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The API Key must be created by the account manager. The detailed process is described in the official documentation.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer

Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/v1/users`
Description:	User endpoint of the Qlik Sense REST API.
Documentation:	https://qlik.dev/apis/rest/users

Endpoint:	`{+serverUrl}/api/v1/licenses/assignments`
Description:	License Assignment endpoint of the Qlik Sense REST API returning the assignments of licenses to users.
Documentation:	https://qlik.dev/apis/rest/licenses

Endpoint:	`{+serverUrl}/api/v1/licenses/status`
Description:	Licenses Status endpoint of the Qlik Sense REST API.
Documentation:	https://qlik.dev/apis/rest/licenses

Endpoint:	`{+serverUrl}/api/v1/licenses/overview`
Description:	License Overview endpoint of the Qlick Sense REST API.
Documentation:	https://qlik.dev/apis/rest/license

Tables

Table	Column	Type
users	• created • email • id • inviteExpiry • lastUpdated • locale • name • picture • preferredLocale • preferredZoneinfo • roles • status • subject • tenantId • zoneInfo	• String • String • String • Integer • String • String • String • String • String • String • String • String • String • String • String
license_assignment	• created • excess • name • subject • type • userId	• String • Boolean • String • String • String • String
license_status	• origin • product • status • trial • type • valid	• String • String • String • Boolean • String • String
license_overview	• licenseKey • licenseNumber • origin • status • trial • valid	• String • String • String • String • Boolean • String
license_parameters	• access • name • valid • values	• String • String • String • String
license_allotments	• name • overage • unis • unitsUsed • usageClass	• String • Integer • Integer • Integer • String

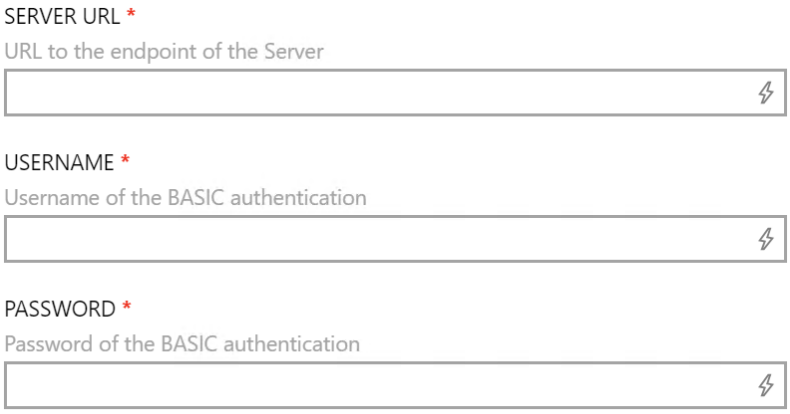
Qualys

Connects to the Qualys API and fetches information about the assets, including software and network.

Prerequisites

In order to use the connector at least the URL to the server, username, and the password of the BASIC information are needed.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Username

This parameter contains the username of the BASIC authentication

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Password

This parameter contains the password of the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Page Size

This parameter specifies the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`300`
Example Values	`300`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`

Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`600000`
Example Values	`600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will

fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`20`
Example Values	`20`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/auth`
Description:	Authenticate a session.
Documentation:	n/a

Endpoint:	`{+serverUrl}/rest/2.0/search/am/asset`
Description:	Endpoint to retrieve list of all assets.
Documentation:	n/a

Tables

Table	Column	Type
`assets`	• `address` • `assetId` • `assetName` • `assetType` • `assetUUID` • `biosDescription` • `biosSerialNumber` • `cpuCount` • `createdDate` • `dnsName` • `hardwareCategory1` • `hardwareCategory2`	• `String` • `Integer` • `String` • `String` • `String` • `String` • `String` • `Integer` • `String` • `String` • `String` • `String`

Table	Column	Type
	• hardwareFullName • hardwareManufacturer • hardwareModel • hostId • hwUUID • isContainerHost • lastBoot • lastLoggedOnUser • lastModifiedDate • netbiosName • operatingSystemCategory1 • operatingSystemCategory2 • operatingSystemEdition • operatingSystemFullName • operatingSystemInstallDate • operatingSystemMarketVersion • operatingSystemOsName • operatingSystemProductName • operatingSystemPublisher • operatingSystemVersion • processorDescription • processorNumCPUs • processorSpeed • totalMemory	• String • String • String • Integer • String • Boolean • String • String • String • String • String • String • String • String • String • String • String • String • String • String • Integer • Integer • Integer
network	• addressIpV4 • assetId • hostname • interfaceName • macAddress • manufacturer	• String • Integer • String • String • String • String
software	• assetId • category1 • category2 • edition • fullName • installDate • installPath • isPackage • isPackageComponent • language • lastUpdated • lastUseDate • licenseCategory • licenseSubcategory • packageName • productName • publisher	• Integer • String • String • String • String • String • String • Boolean • Boolean • String • String • String • String • String • String • String • String

Table	Column	Type
	• softwareType • version	• String • String

QuickBooks TSheets

Connects to the TSheets REST API and fetches user data.

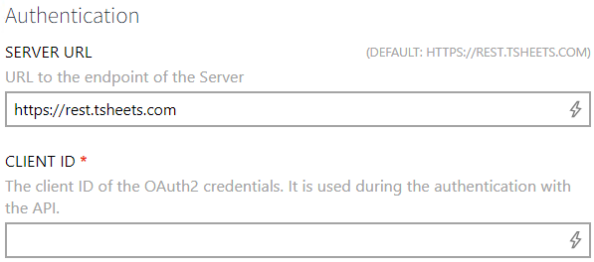
Prerequisites

In order to make a successful call to the TSheets REST API it is necessary to add RayVentory Data Hub as an API Application to TSheets.

In order to do this, execute the following steps:

1. Log into the TSheets Account and select **Feature Add-ons** > **Manage Add-ons** from the navigation menu located on the left side.
2. Click on the **Install** button located next to the **API** entry in the list.
3. In the **API Information** window select **Add a new application** located at the bottom of the window.
4. Add a descriptive name (for example: RayVentory Data Hub) and a meaningful description for the application and click on the **Save** button.
5. The **OAuth Client ID** that is needed for the connector is now available amongst further information about the app.

Connector Setup



- Enter the Client ID of the OAuth2 credentials which is used during the authentication with the API into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://rest.tsheets.com`
Example Values	`https://rest.tsheets.com`

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication

Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 100000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• active • clientUrl • companyName • email • employeeNumber • firstName • id • lastName • payrollId • username	• String • String • String • String • String • String • String • String • String • String

Quip

Connects to the Quip REST API to retrieve user data.

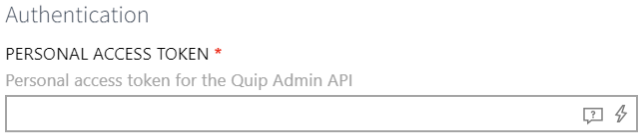
Prerequisites

In order to use the connector it is necessary to create an OAuth 2.0 token for the connector in Quip.

> **Best practice:**
> It is recommended to create one token for each application that should be integrated into Quip and to name it after the application that is to be integrated.

Connector Setup

- Enter the ID of the company that is registered with Quip into the **COMPANY ID** field.



- Enter the Personal Access Token for the authentication with the Quip Admin API into the **PERSONAL ACCESS TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Company ID

This parameter contains the ID of the company that is registered with Quip.

Technical Name	`company_id`
Category	Functional
Type	String
Default Value	n/a
Example Values	`{empty}`

Authentication

Personal Access Token

This parameter contains the personal access token for the Quip Admin API.

Technical Name	`access_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

See the documentation for reference.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`2500`
Example Values	`2500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://platform.quip.com/1/admin/users/list`
Description:	List users of a company.
Documentation:	https://quip.com/dev/admin/documentation#list-users-at-a-company

Tables

Table	Column	Type
`users`	• `affinity` • `archiveFolderId` • `createdUsec` • `desktopFolderId` • `disabled` • `id` • `isRobot` • `name` • `privateFolderId` • `profilePictureUrl` • `starredFolderId`	• `Integer` • `String` • `Integer` • `String` • `Boolean` • `String` • `Boolean` • `String` • `String` • `String` • `String`

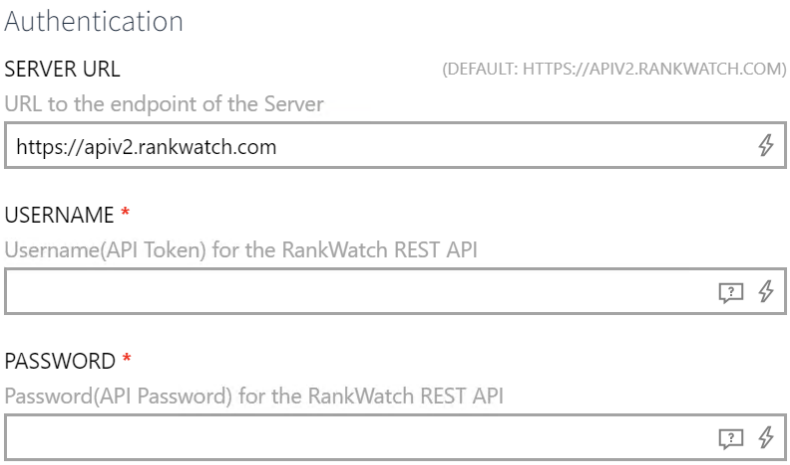
RankWatch

Connects to the RankWatch REST API. It fetches projects and project details and writes projects and keywords per project and search engine.

Prerequisites

In order to use the connector, an API Token and an API Password are needed. The API Token and the API Password for the chosen user can be found here: http://www.rankwatch.com/api-manager/manage-api.html.

Connector Setup



- Enter the API Token for the RankWatch REST API into the **USERNAME** field.
- Enter the API Password for the RankWatch REST API into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://apiv2.rankwatch.com`
Example Values	`https://apiv2.rankwatch.com`

Username

This parameter should contain the Username (API Token) for the RankWatch REST API.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The Username (API Token) and Password (API Password) can be obtained here.

Password

This parameter should contain the password (API Password) for the RankWatch REST API.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The Username (API Token) and Password (API Password) can be obtained here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/project/list/json/count/{count}/offset/{offset}
Description:	List projects.
Documentation:	https://www.rankwatch.com/rwapi/doc.html#scrollHref7

Endpoint:	{+serverUrl}/api/v1/spaces
Description:	Get project details.
Documentation:	https://www.rankwatch.com/rwapi/doc.html#scrollHref9

Tables

Table	Column	Type
projects	• alexaRank • backlinkCount • googleIndex • projectCreatedOn • projectId • projectName • searchEngines • url	• String • Integer • String • String • String • String • String • String
keywords	• addedOn • additionalRankings • currentRank • highestRank • initialRank • kId • keyword • pId • pageNumber • pageScore • previousRank • rankDifference • rankedUrl • searchEngineId • searchEngineName • searchVolume • tags • uniqueKeywordId • url	• String • Integer • Integer • Integer • Integer • String • String • String • String • String • String • Integer • String • String • String • String • String • Integer • String • String

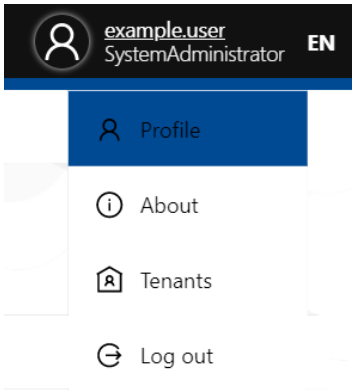
RayManageSoft UEM

This connector is used to make an API call to the RayManageSoft UEM API.

Prerequisites

To use the RayManageSoft UEM connector it is necessary to create an API key in RayManageSoft UEM.

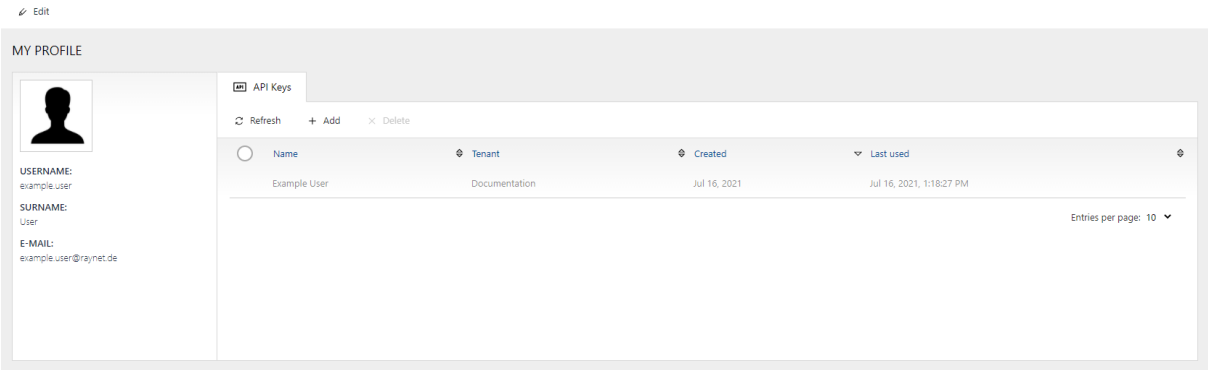
In order to create an API key it is necessary to select the Profile option from the context menu that is shown when hovering over the user name shown at the top right of the screen. It is necessary to be logged in with the same account that should be used with the software for which the API key is needed.



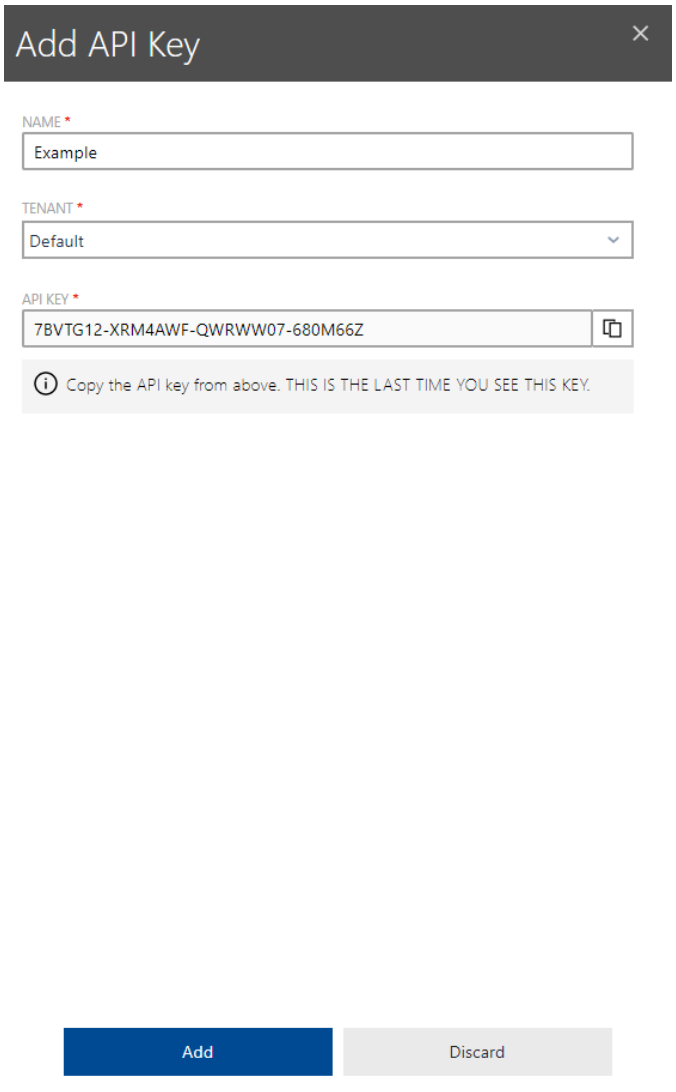
The **My Profile** page will open. This page contains a tab which is called API Keys. The tab contains a list of the API keys that already exist for the user. It can be used to either delete an already existing key or to add a new key.

> **Be aware:**
> The key itself will only be shown when created. If a key has been lost, it cannot be retrieved. Delete the entry for the old key and create a new key.

In order to delete a key, select the key and click on **Delete**. It is necessary to confirm the deletion once more in the confirmation dialog. To add a new API Key, click on **Add**.



When clicking on **Add** the **Add API Key** dialog will be opened.

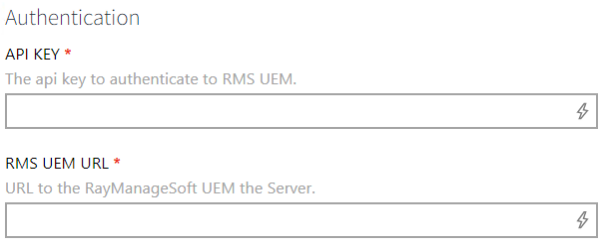


The following fields are available in this dialog:

- **NAME**: Enter a name for the API key. For example, the name of the application for which the API key will be used.
- **TENANT**: Select the tenant for which the API key will be used. It is only possible to select one of the the available tenants for each key. In order to select multiple tenants, it is necessary to create multiple keys.
- **API KEY**: This field contains the automatically generated API key. After the dialog has been closed, it will not be possible to retrieve the key. Use the button at the end of the field in order to copy the key to the clipboard.

After all fields have been filled and after copying the API key, click on the **Add** button in order to finalize the creation of the key. It is now possible to use the key to create a connection to the selected tenant.

Connector Setup



- Enter the API Key used to authenticate to RayManageSoft Unified Endpoint Manager into the **API KEY** field.
- Enter the URL to the RayManageSoft Unified Endpoint Manager server into the **RMS UEM URL** field.

Connector Parameters

Authentication

API Key

This parameter contains the API key to authenticate to RMS UEM.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

RMS UEM URL

This parameter contains the URL to the RayManageSoft UEM Server

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Extracted Data

Table	Column
ChildGroupAssignments	• Id • ParentId • ChildId
DeviceAssignments	• Id • DeviceId • DeviceGroupId
Devices	• Id • Hostname • Domain • DisplayName • Owner • OperatingSystem • OperatingSystemVersion • LastInventoryDate • ImportId • Note • ADRegisterDate • AdJoinType • AgentVersion • ImportSource • MachineGuid
Groups	• Id • Name • Description • CreationDate
InstallStates	
InventoryDetails	
PackageAssignments	
Packages	• Id • PackageId • DeviceGroupId • DeviceId • ExclusiveFlag • ForceInstall • Removable
SoftwareEvidence	

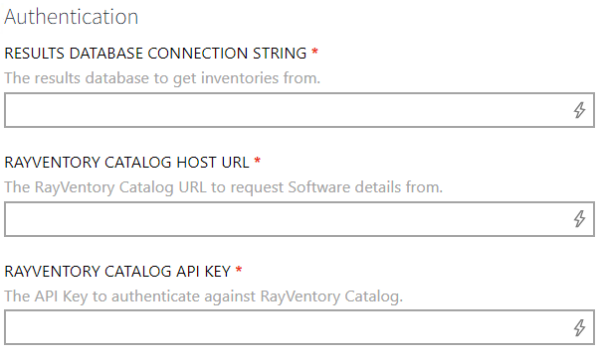
RayVentory Catalog

Prerequisites

In order to get an API Key for RayVentory Catalog log in to the RayVentory Catalog instance and select the profile page. On the profile page it is possible to create the API Key that is needed for the connector. In order to create API Keys the user must have at least one of the following roles:

- `Synchronizer`
- `Moderator`
- `Admin`
- `Site-Admin`

Connector Setup



- Enter the results database from which to get the data into the **RESULTS DATABASE CONNECTION STRING** field.
- Enter the URL from which to request software details from into the **RAYVENTORY CATALOG HOST URL** field.
- Enter the API Key used to authenticate against RayVentory Catalog into the **RAYVENTORY CATALOG API KEY** field.

Connector Parameters

Configuration

Devices Batch Size

This parameter defines the number of devices processed in a single batch.

Technical Name	`devicesBatchSize`
Category	Functional
Type	Integer
Default Value	`100`
Example Values	

If this value is larger than the limit set in the field **maximum number of devices**, then the value in **maximum number of devices** is used as the new batch size limit.

Maximum Number of Devices

This parameter defines the number of devices processed in a single batch.

Technical Name	`totalNumberOfDevices`
Category	Functional
Type	Integer
Default Value	`n/a`
Example Values	

If the parameter is left empty or set to 0 all available devices will be processed.

Send Software Signatures

This parameter defines the number of devices processed in a single batch.

Technical Name	`uploadFingerprints`
Category	Functional
Type	Boolean (`True` or `False`)
Default Value	`n/a`
Example Values	

This function can be used to contribute to the catalog by distributing anonymous software signatures to the catalog.

Authentication

Results Database Connection String

This parameter defines the results database to get inventories from.

Technical Name	`resultsConnectionString`
Category	Authentication

Type	String
Default Value	`n/a`
Example Values	

RayVentory Catalog Host URL

This parameter contains the RayVentory Catalog URL to request Software details from.

Technical Name	`catalogServerUrl`
Category	Authentication
Type	String
Default Value	`n/a`
Example Values	

RayVentory Catalog API Key

This parameter contains the API Key to authenticate against RayVentory Catalog.

Technical Name	`catalogApiKey`
Category	Authentication
Type	String
Default Value	`n/a`
Example Values	

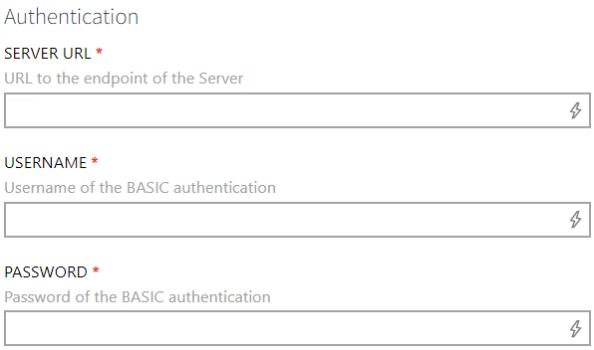
Redhat Virtualization

Connects to the ovirt-engine endpoint of the Redhat Virtualization API. It fetches data centers, clusters, hosts, and virtual machines.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password for the BASIC authentication.

Technical Name	password
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameter

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`10000`
Example Values	`10000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/ovirt-engine/sso/oauth/token`
Description:	Authenticate with the api and returns a token in exchange for valid credentials.
Documentation:	https://access.redhat.com/documentation/en-us/red_hat_virtualization/4.3/html/version_3_rest_api_guide/http_authentication_for_the_rest_api

Endpoint:	`{+serverUrl}/ovirt-enging/api/datacenters`
Description:	List properties and relationships of the dataCenter objects.
Documentation:	https://access.redhat.com/documentation/en-us/red_hat_virtualization/4.3/html/version_3_rest_api_guide/chap-data_centers

Endpoint:	`{+serverUrl}/ovirt-engine/api/clusters`
Description:	List properties and relationships of the cluster objects.
Documentation:	https://access.redhat.com/documentation/en-us/red_hat_virtualization/4.3/html/version_3_rest_api_guide/chap-clusters

Endpoint:	`{+serverUrl}/ovirt-engine/api/hosts`
Description:	List properties and relationships of the host objects.
Documentation:	https://access.redhat.com/documentation/en-us/red_hat_virtualization/4.3/html/version_3_rest_api_guide/chap-hosts

Endpoint:	`{+serverUrl}/ovirt-engine/api/vms`
Description:	List properties and relationships of the virtual machine (vm) objects.
Documentation:	https://access.redhat.com/documention/en-us/red_hat_virtualization/4.3/html/version_3_rest_api_guide/chap-virtual_machines

Tables

Table	Column	Type
data_center	• description • href • id • local • macPoolHref • macPoolId • name • quotaMode • status • storageFormat • versionMajor • versionMinor	• String • String • String • String • String • String • String • String • String • String • String • String
cluster	• ballooningEnabled • biosType • comment • cpuArchitecture • cpuType • dataCenterId • description • firewallType • glusterService • haReservation • href • id • logMaxMemoryUsedThreshold • logMaxMemoryUsedThresholdType • macPoolId • name • schedulingPolicyId • switchtype • threadsAsCores • trustedService • tunnelMigration • versionMajor • versionMinor • virtService • vncEncryption	• String • String
host	• address • autoNumaStatus • certificateOrganization • certificateSubject • clusterId • comment • cpuCores • cpuName • cpuSockets	• String • String • String • String • String • String • String • String • String

Table	Column	Type
	• cpuSpeed • cpuThreads • cpuType • externalStatus • hardwareInformationFamily • hardwareInformationManufacturer • hardwareInformationProductName • hardwareInformationSerialNumber • hardwareInfromationUuid • hardwareInformationVersion • href • id • kdumpStatus • maxSchedulingMemory • memory • name • numaSupported • osCustomKernelCmdline • osType • osVersionMajor • osVersionMinor • port • powerManagementAutomaticPmEnabled • powerManagementEnabled • powerManagementKdumpDetection • protocol • sshFingerprint • sshPost • status • type • updateAvailable • versionMajor • versionMinor • vgpuPlacement	• String • String
vm	• clusterId • comment • cpuArchitecture • cpuCores • cpuShares • cpuSockets • cpuThreads • creationTime • deleteProtected • description • fqdn • guestOperatingSystemArchitecture • guestOperatingSystemCodename • guestOperatingSystemDistribution	• String • String • String • String • String • String • String • String • String • String • String • String • String • String

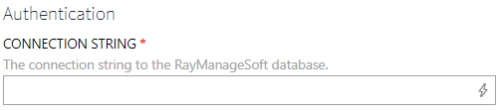
Table	Column	Type
	• guestOperatingSystemFamily • guestOperatingSystemVersionMajor • guestOperatingSystemVersionMinor • hostId • href • id • memory • migrationDowntime • multiQueuesEnabled • name • nextRunConfigurationExists • numaTuneMode • origin • osCustomKernelCmdline • osReportedKernelCmdline • osType • runOnce • startPaused • startTime • stateless • status • stopTime • storageErrorResumeBehaviour • timeZone • type	• String • String

RMS Stored Procedures

Prerequisites

Connector Setup

- In the **STORED PROCEDURE** field in the **Configuration** tab, select the procedure that should be executed on the database.



- In the **Connection** tab, enter the connection string to the RayManageSoft database into the **CONNECTION STRING** field.

Connector Parameters

Authentication

Connection String

This parameter contains the connection string to the RayManageSoft database.

Technical Name	`connectionString`
Category	Authentication
Type	String
Default Value	`n/a`
Example Values	

Stored Procedure

This parameter contains the stored procedure to execute. It can contain one out of multiple procedures which might in itself be configured by further parameters which need to be set.

Technical Name	`rmsStoredProcedure`
Category	Functional
Type	Select • Devices • Device relations • Device relation types • Device types • Software arp • Software file • Generic microsoft • Generic oracle • Generic os • Generic othersw • Software msi • Software tag
Default Value	n/a
Example Values	

Device Relation Types

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Device Relations

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

RPV Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer • min = 0
Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

VMWare Relation

0 = no VMWare Relation, 1 = VMWare relation

Technical Name	`bVMwareRelation`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

VMWare Affinity Mandatory

0 = all AffinityRule, 1 = Only Mandatory AffinityRule

Technical Name	`bVMwareAffinityMandatory`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

VMWare Affinity Rule

0 = no VMWare AffinityRule, 1 = list VMWare Affinity Rule

Technical Name	`bVMwareAffinityRule`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Hyper-V Relation

0 = no Hyper-V relation, 1 = Hyper-V relation

Technical Name	`bHyperVRelation`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Hyper-V with Serialnumber

Hyper-V mapping, link every time by serialnumber

Technical Name	`bHyperVwithSerial`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Hardware Partition Relation

0 = no hardware partition like Zone or LPAR relation, 1 = Hardware partition relation

Technical Name	`bHWPartRelation`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Device Types

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Chassis Type ID

0 = Chassis import_device_type_id as Chassis description, 1 = Chassis Type ID as chassis_[ID from WMI}.

Technical Name	`bChassisTypeID`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Devices

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Orglevel 2 ID

Default OrgLevel2 ID. When left empty defaults to 'unknown_costcenter'

Technical Name	`sOrgLevel2ID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

RPV Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer • min = 0
Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

VMWare Relation

0 = no VMWare Relation, 1 = VMWare relation

Technical Name	`bVMwareRelation`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Hyper-V Relation

0 = no Hyper-V relation, 1 = Hyper-V relation

Technical Name	`bHyperVRelation`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Hardware Partition Relation

0 = no hardware partition like Zone or LPAR relation, 1 = Hardware partition relation

Technical Name	`bHWPartRelation`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Chassis Type ID

0 = Chassis import_device_type_id as Schassis description, 1 = Chassis Type ID as chassis_[ID from WMI}.

Technical Name	`bChassisTypeID`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Generic Microsoft

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

RVP Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer
Default Value	n/a
Example Values	

Double Entry OS

0 = All Inventory Data, 1 = Only double entries if inventory age not older than 90 days, 2 = no double entries

Technical Name	`bDoubleEntryOS`
Category	Functional
Type	Integer • 0 • 1 • 2
Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Generic Oracle

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a

Example Values	

RPV Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer • min = 0
Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Include Not Used Features

0 = Only include features that are used, 1 = Include 'Not Used Feature' but set quantity to 0

Technical Name	`bIncludeNotUsed`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Generic OS

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

RPV Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer
Default Value	n/a
Example Values	

Double Entry OS

0 = All Invenotry Data, 1 = Only double entries if inventory age not older than 90 days, 2 = no double entries

Technical Name	`bDoubleEntryOS`
Category	Functional
Type	Integer • 0 • 1 • 2
Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Generic Othersw

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

RPV Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer • min = 0
Default Value	n/a
Example Values	

Double Entry OS

0 = All Invenotry Data, 1 = Only double entries if inventory age not older than 90 days, 2 = no double entries

Technical Name	`bDoublEntryOS`
Category	Functional
Type	Integer • 0 • 1 • 2
Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

No Update Packages

0 = All package information, 1 = No update packages

Technical Name	`bNoUpdate`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Software ARP

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer • min = 0
Default Value	n/a
Example Values	

Double Entry OS

0 = All Invenotry Data, 1 = Only double entries if inventory age not older than 90 days, 2 = no double entries

Technical Name	`bDoubleEntryOS`
Category	Functional
Type	Integer • 0 • 1 • 2

Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

No Update Packages

0 = All package information, 1 = No update packages

Technical Name	`bNoUpdate`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Software File

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

RPV Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer • min = 0
Default Value	n/a
Example Values	

Double Entry OS

0 = All Invenotry Data, 1 = Only double entries if inventory age not older than 90 days, 2 = no double entries

Technical Name	`bDoubleEntryOS`
Category	Functional
Type	Integer • 0 • 1 • 2
Default Value	n/a

Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

No Usage Data

0 = include metering information, 1 = without metering information

Technical Name	`noUsageData`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Type

0 = All files, 1 = No update packages

Technical Name	`iType`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Software MSI

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

RVP Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer • min = 0
Default Value	n/a
Example Values	

Double Entry OS

0 = All Invenotry Data, 1 = Only double entries if inventory age not older than 90 days, 2 = no double entries

Technical Name	`bDoubleEntryOS`
Category	Functional
Type	Integer • 0 • 1 • 2
Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

No Update Packages

0 = All package information, 1 = No update packages

Technical Name	`bNoUpdate`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Software Tag

Data Source ID

When this is left empty it default to 'custKey_RayVentory'.

Technical Name	`sDataSourceID`
Category	Functional
Type	String
Default Value	n/a
Example Values	

RVP Tag

RVP tag filter, NULL = no values, '%' = all values, '' = all empty values, MACHINE001%' = specific values

Technical Name	`rvpTag`
Category	Functional
Type	String
Default Value	n/a
Example Values	

Last Seen Days

Oldest inventory date to use. When left empty defaults to 90 days.

Technical Name	`iLastSeenDays`
Category	Functional
Type	Integer • min = 0
Default Value	n/a
Example Values	

Double Entry OS

0 = All Invenotry Data, 1 = Only double entries if inventory age not older than 90 days, 2 = no double entries

Technical Name	`bDoubleEntryOS`
Category	Functional
Type	Integer • 0 • 1 • 2
Default Value	n/a
Example Values	

Import ID/FQDN

0 = Import ID is Hostname, 1 = Import ID is FQDN

Technical Name	`bImportIDFQDN`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	n/a
Example Values	

Extracted Data

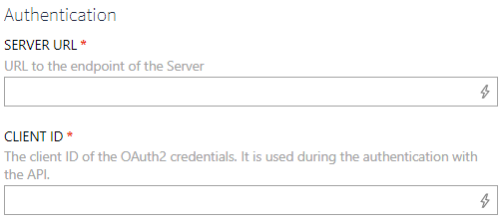
The extracted data depends on the stored procedure that is being executed.

Saba Cloud

This connector is used to connect to the Saba Cloud. It collects user details of internal and external users.

Prerequisites

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID of the OAuth2 credentials used for the authentication with the API into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the Client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• addr1 • addr2 • addr3 • city • companyDisplayName • companyId • country • createdOn • email • fname • homeCompanyIdDisplayName • homeCompanyIdId • id • internalExternal • isManager • lname • locationDisplayName • locationId • personNo • personType • state • status • updatedOn • userAcceptanceStatus • username • zip	• String • String

Salesforce

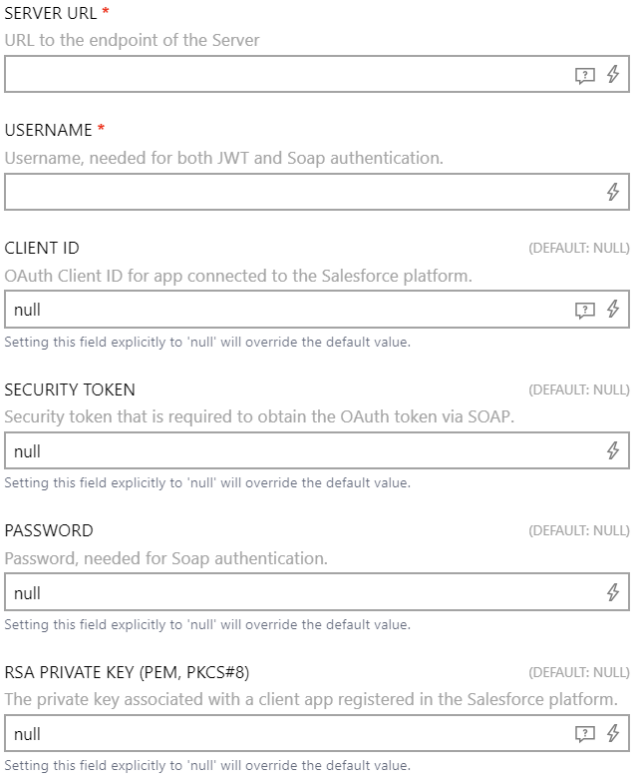
This connector is a porting from the LC4SF connector and connects to the Salesforce API and retrieves the following data:

1. Permission Set Licenses (Query API)
2. Permission Set License Assigns (Query API)
3. Communities (REST API)
4. Login History (Query API)
5. Accounts (Query API)
6. Profiles (Query API)
7. Licenses (Query API)
8. Custom objects (REST API)
9. Limits (REST API)
10. Organization info (REST API)
11. User Package License (Query API)
12. User Logins (Query API)
13. Permission set assignments (Query API)

Prerequisites

In order to use the connector at least the username and the password of the BASIC information are needed. Depending on the chosen authentication method, more information might be necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Depending on the chosen authentication method, it is necessary to enter the relevant information in at least one of the following fields:
  - **CLIENT ID**
  - **SECURITY TOKEN**
  - **PASSWORD**
  - **RSA PRIVATE KEY (PEM, PKCS#8)**

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

API Version

This parameter contains the version of the API as utilized by the user.

Technical Name	`api_version`
Category	Functional
Type	String

Default Value	51.0
Example Values	51.0

Days of Login History to Fetch

This parameter is used to set the amount of days back in the past from now to fetch the login history. A value of 4 would fetch the login history of the last four days back from now.

Technical Name	`history_days_back`
Category	Functional
Type	Integer
Default Value	`1`
Example Values	`1`

Fetch User Package License

If this parameter is set to `true`, the User Package Licenses will be fetched. If set to `false`, the User Package Licenses will not be fetched.

Technical Name	`fetch_user_package_licenses`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter should contain the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Security Token

This parameter contains the security token that is required to obtain the Oauth token via SOAP.

Technical Name	token
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with a client app registered in the Salesforce platform.

Technical Name	`password`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null,`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASC`
	`BKowggSmAgEAAoIBAQD8pNLKhayHFAJ1`
	`ey5nTUGa9wPzOwjlmCgiLbyzw22wQrhCB`
	`T+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fK`
	`TV4BgTmqWIyQXx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

See the documentation for a reference on how to register a connected app with Salesforce. During this process, a Client (or App) ID is associated with an asymmetric key pair (public & private key). The public key must be uploaded to the Salesforce platform.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`

Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://{+serverUrlPart}.salesforce.com/services/data/v{apiV`
Description:	The SOQL (Salesforce Object Query Language) query endpoint of the Salesforce API.
Documentation:	https://developer.salesforce.com/docs/atlas.en-us.soql_sosl.meta/soql_sosl/sforce_api_calls_soql.htm

Endpoint:	`{+serverUrl}/services/Soap/u/{apiVersion}`
Description:	Salesforce endpoint for SOAP authentication.
Documentation:	https://developer.salesforce.com/docs/atlas.en-us.238.0.api.meta/api/implementation_considerations.htm?q=services/soap/u

Endpoint:	`{+serverUrl}/services/oauth2/token`
Description:	Salesforce endpoint for SOAP authentication.
Documentation:	https://help.salesforce.com/s/articleView?id=sf.remoteaccess_using_openid.htm&type=5

Endpoint:	`https://{+serverUrlPart}.salesforce.com/services/data/v{apiV`
Description:	Get a list of all Experience Cloud sites available to the context user.
Documentation:	https://developer.salesforce.com/docs/atlas.en-us.chatterapi.meta/chatterapi/connect_resources_communities_list.htm

Endpoint:	https://{+serverUrlPart}.salesforce.com/services/data/v{apiV
Description:	Get key configuration information for an organization.
Documentation:	https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/sforce_api_objects_organization.htm

Endpoint:	https://{+serverUrlPart}.salesforce.com/services/data/v{apiV
Description:	Get a list of objects.
Documentation:	https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/dome_describeGlobal.htm

Endpoint:	https://{+serverUrlPart}.salesforce.com/services/data/v{apiV
Description:	Lists information about limits in your org.
Documentation:	https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/resources_limits.htm?search_text=limits

Tables

Table	Column	Type
permission_set_licenses	• expirationDate • id • masterLabel • permissionSetLicenseKey • status • totalLicenses • usedLicenses	• String • String • String • String • String • Integer • Integer
permission_set_license_assigns	• assigneeId • permissionSetLicenseId	• String • String
communities	• description • id • loginUrl • name • status	• String • String • String • String • String
login_history	• apiType • application • countryIso • loginTime • loginType • networkId • status	• String • String • String • String • String • String • String

Table	Column	Type
	• userId	• String
accounts	• alias • country • createdDate • email • firstName • id • isActive • lastLoginDate • lastName • name • profileId • userType • username	• String • String • String • String • String • String • Boolean • String • String • String • String • String • String
profiles	• createdDate • id • name • userLicenseId • userType	• String • String • String • String • String
licenses	• id • licenseDefinitionKey • name • totalLicenses • usedLicenses	• String • String • String • Integer • Integer
cust_objects	• custom • customSetting • label • name	• Boolean • Boolean • String • String
limits	• max • name • remaining	• Integer • String • Integer
orgInfo	• id • isSandbox • name • organizationType	• String • Boolean • String • String
user_package_license	• allowedLicenses • namespacePrefix • packageLicenseId • status • usedLicenses • userId	• Integer • String • String • String • Integer • String
user_login	• isFrozen • userId	• Boolean • String

Table	Column	Type
permission_set_assignments	• assigneeId • id • permissionSetName	• String • String • String

Salesforce Marketing Cloud

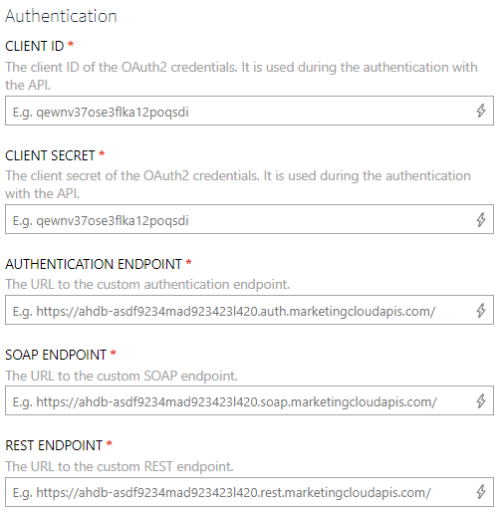
Connects to the Marketing Cloud SOAP API.

- Get an access token
- WSDL Documentation
- WSDL: https://YOUR_SUBDOMAIN.soap.marketingcloudapis.com/etframework.wsdl
- Authenticate SOAP
- `Retrieve`: Get all objects of a given ObjectType - Documentation

Prerequisites

In order to use the connector a Client ID and a Client Secret are needed. In order to get the Client ID and the Client Secret create a package with an API integration component in Marketing Cloud. The Client ID and the Client Secret will be located underneath the component details of the package.

Connector Setup



- Enter the Client ID of the OAuth2 credentials that are used during the authentication with the API into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth2 credentials that are used during the authentication with the API into the **CLIENT SECRET** field.
- Enter the URL to the custom authentication endpoint into the **AUTHENTICATION ENDPOINT** field.
- Enter the URL to the custom SOAP endpoint into the **SOAP ENDPOINT** field.
- Enter the URL to the custom REST endpoint into the **REST ENDPOINT** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication

Type	String
Default Value	n/a
Example Values	`qewnv37ose3flka12poqsdi`

Client Secret

This parameter contains the client secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`qewnv37ose3flka12poqsdi`

Authentication Endpoint

This parameter contains the URL to the custom authentication endpoint.

Technical Name	auth_endpoint
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://ahdb-asdf9234mad9234231420.auth.marketingcloudapis.com/`

Soap Endpoint

This parameter contains the URL to the custom SOAP endpoint.

Technical Name	`soap_endpoint`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://ahdb-asdf9234mad9234231420.auth.marketingcloudapis.com/`

REST Endpoint

This parameter contains the URL to the custom REST endpoint.

Technical Name	`rest_endpoint`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://ahdb-asdf9234mad9234231420` `.auth.marketingcloudapis.com/`

Task Parameter

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`

Example Values	1000

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
accounts	• accountType • address • businessName • city • country • createdDate • editionId • id • isActive • name	• String • String • String • String • String • String • String • String • Integer • String
user_accounts	• accountUserId • activeFlag • createdDate • defaultBusinessUnit • email • id • isApiUser • isLocked • lastSuccessfulLogin • name • userId	• Integer • Boolean • String • Integer • String • String • Boolean • Boolean • String • String • String

Salesforce SOQL

Connects to the Salesforce API and allows to pass custom query string to it. The response is parsed and written to CSV. The connector can handle only flat responses with fields of the types:

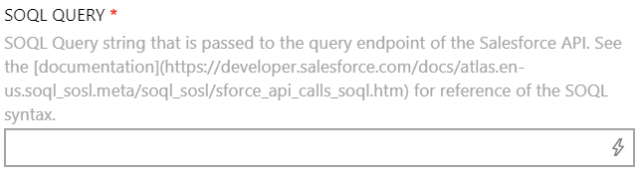
- String
- Number
- Boolean
- Object
- Lists of simple types (String, Number, Boolean)

If the JSON response contains lists of objects or lists of lists the connector will not work.

Prerequisites

In order to use the connector at least the username and the password of the BASIC information are needed. Depending on the chosen authentication method, more information might be necessary.

Connector Setup



- Enter the SOQL (Salesforce Object Query Language) query string that is passed to the query endpoint of the Salesforce API into the **SOQL QUERY** field. Information on how to use the SOQL syntax can be found in the official documentation.

- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Depending on the chosen authentication method, it is necessary to enter the relevant information in at least one of the following fields:
  - **CLIENT ID**
  - **SECURITY TOKEN**
  - **PASSWORD**
  - **RSA PRIVATE KEY (PEM, PKCS#8)**

Authentication

SERVER URL *

URL to the endpoint of the Server

USERNAME *

Username of the BASIC authentication

CLIENT ID (DEFAULT: NULL)

OAuth Client ID for app connected to the Salesforce platform

null

Setting this field explicitly to 'null' will override the default value.

SECURITY TOKEN (DEFAULT: NULL)

Security token that is required to obtain the OAuth token via SOAP.

null

Setting this field explicitly to 'null' will override the default value.

PASSWORD (DEFAULT: NULL)

Password of the BASIC authentication

null

Setting this field explicitly to 'null' will override the default value.

RSA PRIVATE KEY (PEM, PKCS#8) (DEFAULT: NULL)

The private key associated with a client app registered in the Salesforce platform

null

Setting this field explicitly to 'null' will override the default value.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Header Look Ahead

The number of records fetched beforehand to determine the set of columns. If set to `null`, all records are fetched.

Technical Name	`header_look_ahed`
Category	Functional
Type	Integer `null`
Default Value	100000
Example Values	`100000, null`

Some API endpoints have variable records, but do not describe the columns and respectively the column names beforehand. However, this is necessary to prepare the output .csv. The connector will collect and cache a number of records before writing the first line to the .csv. If this number is too small, not all fields will be determined and these will be missing in the final data. If the number is large, the memory consumption of the connector will increase.

API Version

The version of the API as utilized by the user.

Technical Name	`api_version`
Category	Functional
Type	String
Default Value	`51.0`
Example Values	`51.0`

SOQL Query

The SOQL Query string that is passed to the query endpoint of the Salesforce API. See the documentation for the reference of the SOQL syntax.

Technical Name	`soql_query`
Category	Functional
Type	String
Default Value	n/a
Example Values	`{empty}`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter should contain the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the OAuth Client ID for the app connected to the Salesforce platform.

Technical Name	`client_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

See the documentation for a reference on how to register a connected app with Salesforce. During this process, a Client (or APP) ID is associated with an asymmetric key pair (public & private key). The public key must be uploaded to the Salesforce platform.

Security Token

This parameter contains the security token that is required to obtain the Oauth token via SOAP.

Technical Name	token
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`

RSA Private Key (PEM, PKCS#8)

This parameter contains the private key associated with a client app registered in the Salesforce platform.

Technical Name	`password`
Category	Authentication
Type	String `null`
Default Value	`null`

Example Values	`null`
	`-----BEGIN PRIVATE KEY-----`
	`MIIEwAIBADANBgkqhkiG9w0BAQEFAASC`
	`BKowggSmAgEAAoIBAQD8pNLKhayHFAJ1`
	`ey5nTUGa9wPzOwjlmCgiLbyzw22wQrhCB`
	`T+DMa24+iSAKHE72lgK5/OQOTbIPFWP`
	`...`
	`vSlewskdmlsKXZ1hPG20JotkFG7jEz8fK`
	`TV4BgTmqWIyQXx/U4aNjoXBLzyvf1t4`
	`-----END PRIVATE KEY-----`

See the documentation for a reference on how to register a connected app with Salesforce. During this process, a Client (or App) ID is associated with an asymmetric key pair (public & private key). The public key must be uploaded to the Salesforce platform.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
`generic_data`		

Salesfusion Sugar CRM

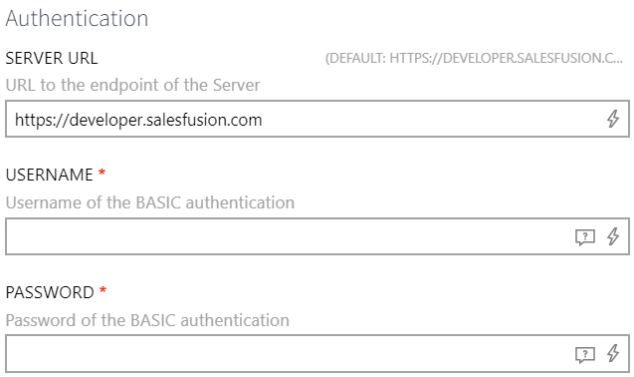
The connector connects to the SalesFusion Sugar CRM REST API and fetches users, distributions and contacts per distributions.

Prerequisites

In order to use the connector it is necessary to use the username and the password of the BASIC authentication.

> **Be aware:**
> The username for the API matches the username of the user they are using plus the domain name.
> **Example:**
> username@domain.com

Connector Setup



- By default, the URL to the endpoint of the server in the **SERVER URL** field is set to https://developer.salesfusion.com.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://developer.salesfusion.com`
Example Values	`https://developer.salesfusion.com`

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

To connect to the API, a unique API username and user account should be created and authorized

to interact with the API as described in the documentation.

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String `null`
Default Value	n/a
Example Values	`{empty}`

To connect to the API, a unique API username and user account should be created and authorized to interact with the API as described in the documentation.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical

Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the

Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/api/2.0/users/request-token/`
Description:	Authenticates with the API and returns an access token in exchange for valid credentials.
Documentation:	https://market.apidocs.sugarcrm.com/#intro

Endpoint:	`{+serverURL}/api/2.0/users/`
Description:	Lists users.
Documentation:	https://market.apidocs.sugarcrm.com/#9867c0c3-ecc3-4d5d-95ff-ca36881007c0

Endpoint:	`{+serverURL}/api/2.0/distribution/`
Description:	Lists distributions.
Documentation:	https://market.apidocs.sugarcrm.com/#10d00f78-51d9-42d2-a3c8-40a8b68770d9

Endpoint:	`{+serverURL}/api/2.0/distribution/{distId}/contacts/`
Description:	Lists contacts per distribution.
Documentation:	https://market.apidocs.sugarcrm.com/#a370d953-1a12-4ede-b23b-42b5c4ae7d06

Tables

Table	Column	Type
users	• email • firstName • lastName • status • user • userId • userName	• String • String • String • String • String • String • String
distribution	• createdBy • createdById • createdDate • crmId • description • list • listId • listName • listType • owner • ownerId • updatedBy • updatedById • updatedDate	• String • String • String • String • String • String • String • String • String • String • String • String • String • String
distribution_contact	• account • accountId • accountName • contact • contactId • createdBy • createdById • createdDate • crmId • crmType • deliverabilityMessage • deliverabilityStatus • deliveredDate • distributionId • email • firstName • lastName • optOut • optOutDate • owner • ownerName • phone • status • title • updatedBy	• String • String

Table	Column	Type
	• updatedById • updatedDate	• String • String

SAP Ariba Contract Workspaces

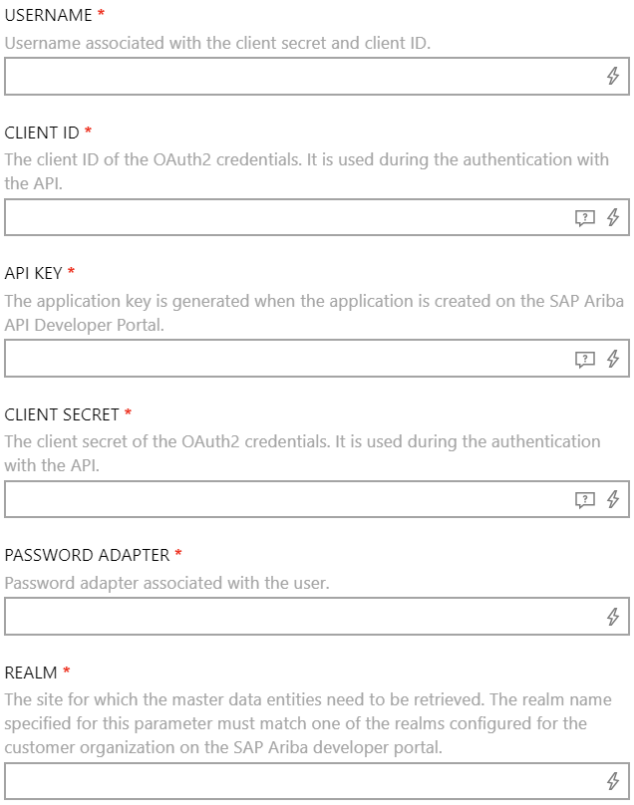
Connects to the SAP Ariba Contract Workspaces Retrieval API and fetches information about all contracts.

Prerequisites

In order to create a Key for an application in the SAP Ariba Developer Portal, the following steps need to be executed by an organization administrator:

1. Login to the SAP Ariba Developer Portal.
2. In the left navigation menu, click on the **Manage**..
3. Click on **Application**.
4. Search for the application.
5. Select **Actions** > **Generate Oauth Secret**.
6. Click on **Submit** in the pop-up window.
   As the information in the pop-up window will not be saved, copy it an save it to a secure location.

Connector Setup



- Enter the username associated with the Client Secret and the Client Id into the **USERNAME** field.
- Enter the Client ID of the OAuth2 credentials that are used for the authentication with the API into the **CLIENT ID** field.
- Enter the API Key of the application into the **API KEY** field.
- Enter the Client Secret of the OAuth2 credentials that are used for the authentication with the API into the **CLIENT SECRET** field.
- Enter the password adapter associated with the user into the **PASSWORD ADAPTER** field.
- Enter the unique identifier of the SAP Ariba site into the **REALM** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Filter

This parameter contains the Custom filter options. It can be used for different fields with fieldname eq 'entry to filter for'. Currently only two filters are supported. Supported filters might change on a customer basis.

Technical Name	`filter`

Category	Functional
Type	String
Default Value	{empty}
Example Values	"", "Title eq 'Service'", "LastModified eq 2021-01-01"

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	server_url
Category	Authentication
Type	String
Default Value	https://eu.openapi.ariba.com
Example Values	https://eu.openapi.ariba.com

Server URL

This parameter contains the URL to the endpoint of the server for authentication.

Technical Name	auth_url
Category	Authentication
Type	String
Default Value	https://api-eu.ariba.com
Example Values	https://api-eu.ariba.com

Username

This parameter contains the username associated with the client secret and client ID.

Technical Name	username
Category	Authentication

Type	String
Default Value	`{empty}`
Example Values	

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Client Id and Client Secret can be generated for an application in the SAP Ariba API Developer Portal.

1. Log in to the developer portal as a user with the **Organization Admin** role.
2. Click **Manage** in the left-hand navigation menu.
3. Select the application from the list of applications. Chooes Actions > **Generate OAuth Secret**.
4. Click **Submit**. The OAuth Secret and Base64 Encoded Client and Secret are displayed temporarily.
5. Copy the OAuth Secret and Base64 Encoded Client and Secret and save externally at a secured location.

More information can be found in the official documentation.

API Key

This parameter contains the application key that is generated when the application is created in the SAP Ariba API Developer Portal.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

To find the application key:

1. Login to the SAP Ariba Developer Portal.
2. Click Manage from the left navigation menu.
3. Click Applications.

4. Search for the application.
5. Look for the value Application Key.

Client Secret

This parameter contains the client secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Client Id and Client Secret can be generated for an application in the SAP Ariba API Developer Portal.

6. Log in to the developer portal as a user with the **Organization Admin** role.
7. Click **Manage** in the left-hand navigation menu.
8. Select the application from the list of applications. Chooes Actions > **Generate OAuth Secret**.
9. Click **Submit**. The OAuth Secret and Base64 Encoded Client and Secret are displayed temporarily.
10. Copy the OAuth Secret and Base64 Encoded Client and Secret and save externally at a secured location.

More information can be found in the official documentation.

Password Adapter

This parameter contains the password adapter associated with the user.

Technical Name	`password_adapter`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Realm

This parameter contains the site for which the master data entities need to be retrieved. The realm name specified for this parameter must match one of the realms configured for the customer organizations on the SAP Ariba developer portal.

Technical Name	`realm`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Page Size

This parameter specifies the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical

Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v2/oauth/token`
Description:	Endpoint to obtain an OAuth token.
Documentation:	n/a

Endpoint:	`{+serverUrl}/api/retrieve-contract-workspaces/v1/prod/contra`
Description:	Search for Contract workspace based on fields and select required fields in the result. Pagination support.
Documentation:	https://api.sap.com/api/retrieve_contract_workspaces/resource

Tables

Table	Column	Type
`contracts`	• `amendmentReason` • `amendmentType` • `autoRenewalInterval` • `contractId` • `contractStatus` • `creationDate` • `description`	• `String` • `String` • `Integer` • `String` • `String` • `String` • `String`

Table	Column	Type
	• effectiveDate • expirationDate • expirationTermType • internalId • isTestProject • maximumNumberOfRenewals • ownerEmailAddress • ownerName • ownerPasswordAdapter • ownerUniqueName • relatedId • supplierName • supplierSmVendorId • supplierSystemId • title • version	• String • String • String • String • Boolean • Integer • String • String • String • String • String • String • String • String • String • Integer
contract_custom_fields	• addressCity • addressCountry • addressFax • addressLines • addressName • addressPhone • addressPostalCode • addressState • addressUniqueName • bigDecimalValue • booleanValue • commodityDomain • commodityName • commodityUniqueName • contractId • countryValue • currencyName • currencyUniqueName • dateValue • departmentName • departmentUniqueName • fieldDataType • fieldId • fieldName • flexMasterDataTypeValue • intValue • moneyAmount • moneyCurrency • multiLineTextValue • percentValue • productValue • regionName	• String • String • String • String • String • String • String • String • String • Integer • Boolean • String • String • String • String • String • String • String • String • String • String • String • String • String • Integer • Integer • String • String • Integer • String • String

Table	Column	Type
	• regionUniqueName • templateProperties • textMultiSelectValue • textValue • uniqueName • uomName • uomUniqueName • urlValue	• String • String • String • String • String • String • String • String

SAP Concur

Connects to the SAP Concur REST API and retrieves user information.

Prerequisites

To connect to the SAP Concur REST API the following parameters are required:

- Client Secret
- Client ID
- Geolocation (ServerURL)
- Refresh Token

It is necessary to register an application with SAP Concur by contacting either the Partner Enablement Manager or the Partner Account Manager. After the application has been created, a Client ID, Client Secret, Refresh Token, and Geolocation will be provided. The application needs the "USER" scope and the "EXPRPT" scope.

The `geolocation` is the default base URI for initiating all new connections. The full list of available token geolocations is available on the Base URIs page.

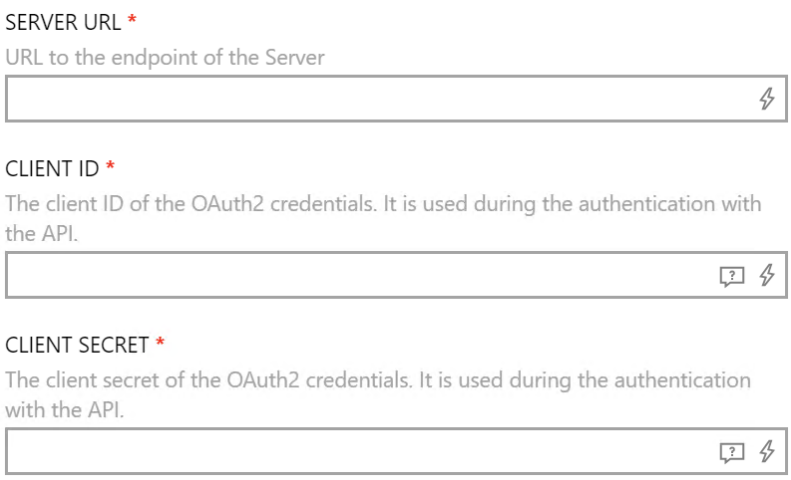
The application will be able to make subsequent calls using the `accessToken` and the correct endpoint based on the Geolocation of the token.

> **Note:**
> There are two endpoints for each Geolocation. the default endpoint (used for server-side calls) and the second endpoint that is used for client-side calls. Client-side calls should use the www- variant of the base URI.

More information about the authentication with the SAP Concur REST API can be found here:

- https://developer.concur.com/api-reference/authentication/getting-started.html
- https://developer.concur.com/api-reference/authentication/apidoc.html

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID of the OAuth2 credentials that are used during the authentication with the API into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth2 credentials that are used during the authentication with the API into the **Client Secret** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Fetch User Info

This parameter can be used to activate the fetching of the user data and exporting the owner Id in the expense reports.

Technical Name	`fetch_user_info`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

For privacy reasons, the user data is left out by default. If set to true, this also fetches the user data, as well as filling in the column of the owner Id in the expense reports.

Reports Since

This parameter defines the period of the reports to be fetched in ISO-8601 format.

Technical Name	`report_interval`
Category	Functional
Type	String
Default Value	`P365D`
Example Values	`P365D, P365D, P7D`

Only fetches reports in this period (given in days) from the current time backwards.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Client Id and Client Secret are provided during the application registration. For more information read the official documentation.

Client Secret

This parameter contains the client secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Client Id and Client Secret are provided during the application registration. For more information read the official documentation.

Refresh Token

This parameter contains the refresh token. Additionally to the Client Id and the Client Secret, it can be used for the initial authentication.

Technical Name	`refresh_token`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

In some cases, this refresh token may be needed for initial authentication. If no refresh token is given, the grant_type client_credentials is used. If a refresh token is given, the grant_type refresh_token is used. Official documentation can be found here.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	`null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/oauth2/v0/token`
Description:	Client Credentials authentication endpoint of the Concur API.
Documentation:	https://developer.concur.com/api-reference/authentication/apidoc.html#client-credentials-grant-

Endpoint:	`{+serverUrl}/api/v3.0/common/users/`
Description:	Retrieve all users of a company. Needs the `'USER'` scope.
Documentation:	https://api.sap.com/api/ConcurExpenseUsers/resource

Endpoint:	`{+serverUrl}/api/retrieve-contract-workspaces/v1/prod/contra`
Description:	Retrieve all reports in the company. Needs the `'EXPERT'` scope.
Documentation:	https://api.sap.com/api/ConcurExpenseReports/resource

Tables

Table	Column	Type
reports	• approvalStatusName • id • ownerLoginId • submitDate	• String • String • String • String
users	• active • cellPhoneNumber • employeeId • firstName • id • lastName • loginId • middleName • organizationUnit • primaryEmail • uri	• Boolean • String • String • String • String • String • String • String • String • String • String

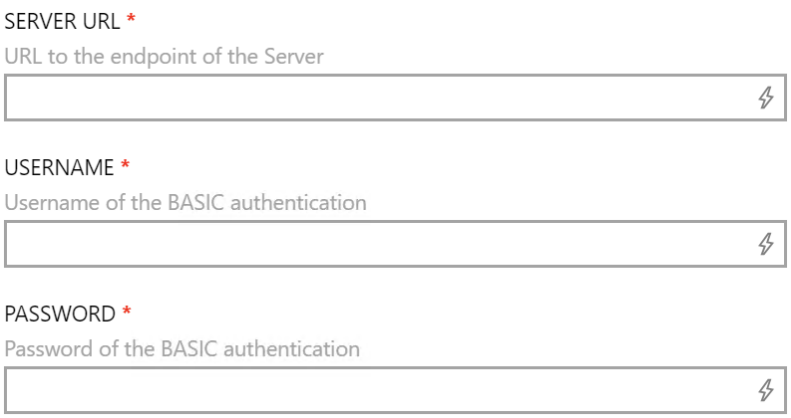
SAP Hybris Cloud for Customer (C4C)

The connection connects to SAP Hybris Cloud for Customer via the Internal Employees API and fetches employee collection.

Prerequisites

As the connector uses BASIC authentication, only the URL to the target server, the username, and the corresponding password are needed.

Connector Setup



- Enter the URL to the endpoint of the Server into the **SERVER URL** field.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Select Employee Collection

This parameter can be used to define the properties in the employee collection endpoint to be returned.

Technical Name	`select_employee_collection`
Category	Functional
Type	Array `null`
Default Value	`null`
Example Values	`null, ["ObjectID", "EmployeeID", "UUID", "UserId2, "IdentityUUID"]`

More about `'select'` can be found in the `'Parameters'` `'$select'` section of the Employee Collection page.

Filter Employee Collection

This parameter can be used to filter items in the employee collection endpoint by property values.

Technical Name	`filter_employee_collection`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

More about `'filter'` can be found in the `'Parameters'` `'$filter'` section of the Employee Collection page.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Page Size

This parameter specifies the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical

Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of

rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/sap/c4c/odata/v1/c4codataapi/EmployeeCollection`
Description:	List employee collection.
Documentation:	https://api.sap.com/api/employeeanduser/resource

Tables

Table	Column	Type
employee_collection	• academicTitleCode • academicTitleCodeText • addressLine1 • addressLine2 • addressLine4 • addressLine5 • birthDate • birthName • birthPlace • building • businessPartnerFormattedName • businessPartnerId • careOfName • changedBy • changedByIdentityUuid • changedOn • city • companyPostalCode • countryCode • countryCodeText • county • createdBy • createdByIdentityUuid • createdOn • differentCity • district • eTag • email • employeeId • employeeValidityStartDate • entityLastChangedOn • faxNumber • firstName	• String • String

Table	Column	Type
	• floor • formattedPostalAddressDescription • genderCode • genderCodeText • globalUserId • houseNumber • identityUuid • inhouseMail • languageCode • languageCodeText • lastName • martialStatusCode • martialStatusCodeText • middleName • mobilePhoneNumber • nationalityCountryCode • nationalityCountryCodeText • nickName • normalisedMobilePhoneNumber • normalisedOfficePhoneNumber • objectId • officePhoneNumber • poBox • poBoxCity • poBoxCountryCode • poBoxCountryCodeText • poBoxPostalCode • poBoxRegionCode • poBoxRegionCodeText • postalCode • regionCode • regionCodeText • room • secondLastName • street • taxJurisdictionCode • taxJurisdictionCodeText • timeZoneCode • timeZoneCodeText • titleCode • titleCodeText • userCountedIndicatior • userId • userLockedIndicator • userPasswordPolicyCode • userPasswordPolicyCodeText • userValidityEndDate • userValidityStartDate	• String • Boolean • String • Boolean • String • String • String • String

Table	Column	Type
	• uuid	• String

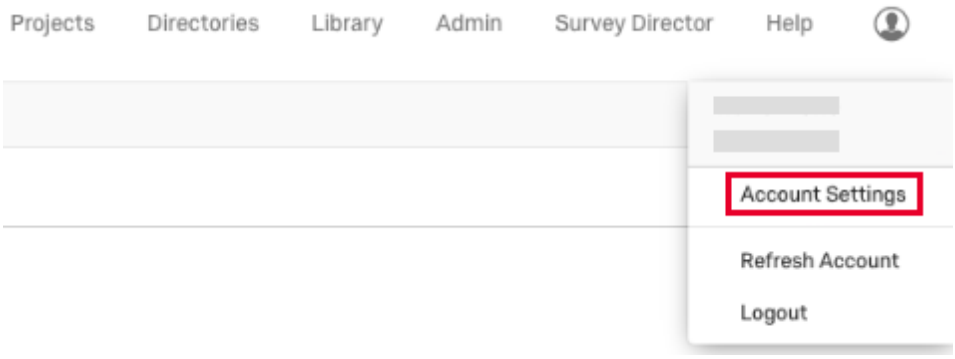
SAP Qualtrics

Connects to the SAP Qualtrics API and retrieves user data and user permissions.

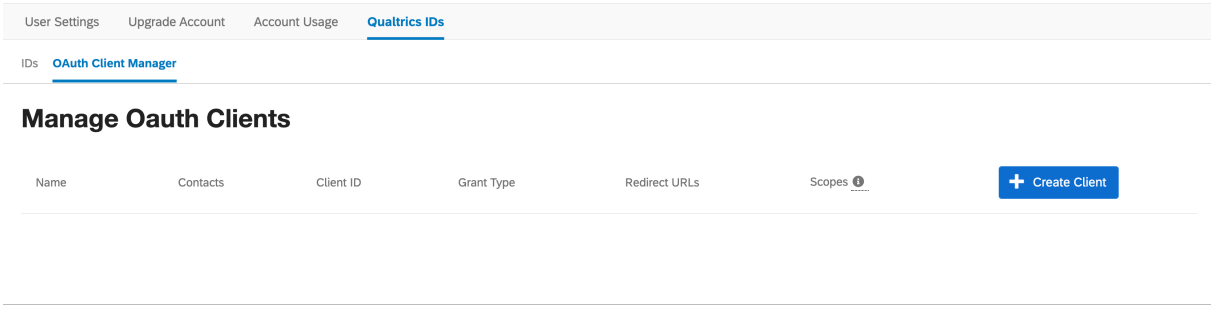
Prerequisites

In order to use the SAP Qualtrics connector a Client ID and the corresponding Client Secret are required. These can be created executing the following steps:

1. Login to the Qualtrics account and select Account Settings.

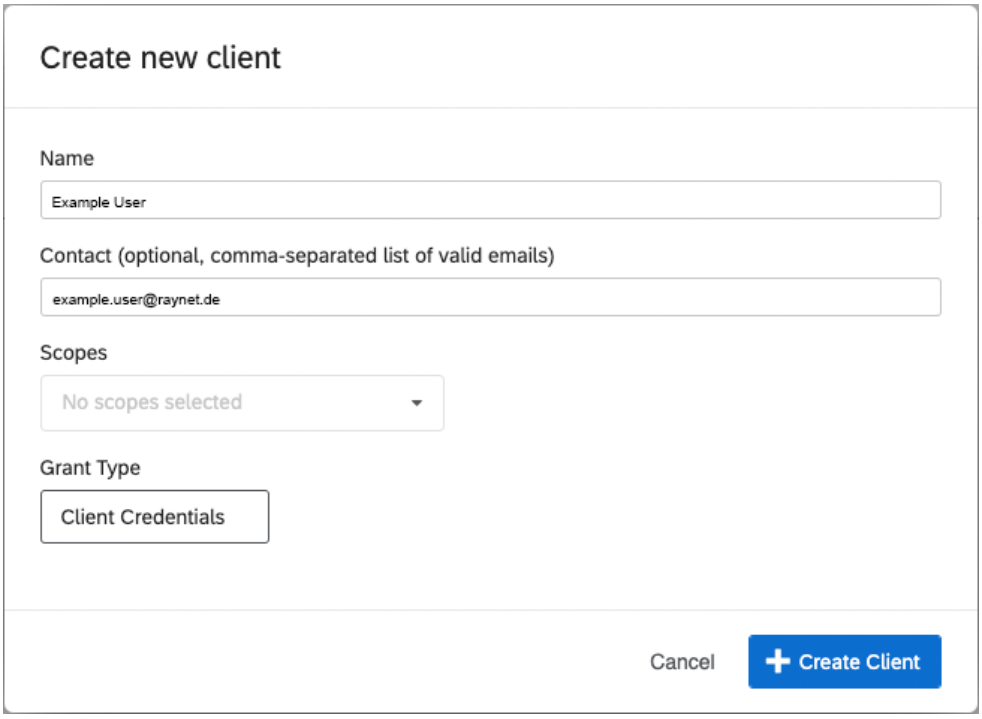


2. Select **OAuth Client Manager**.
3. Click **Create Client**.

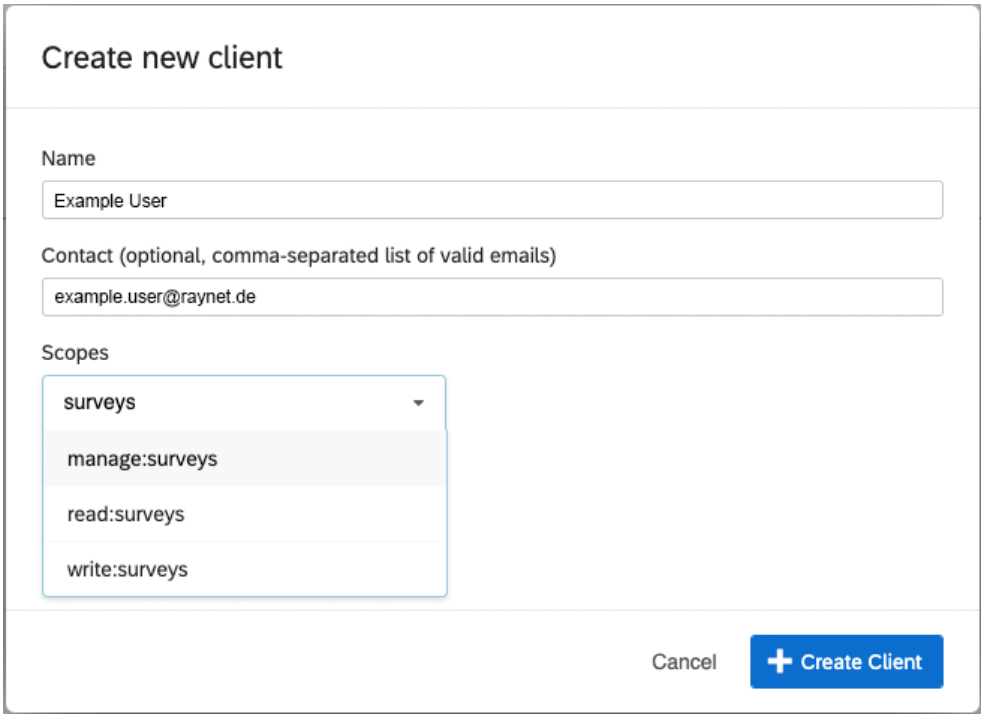


,

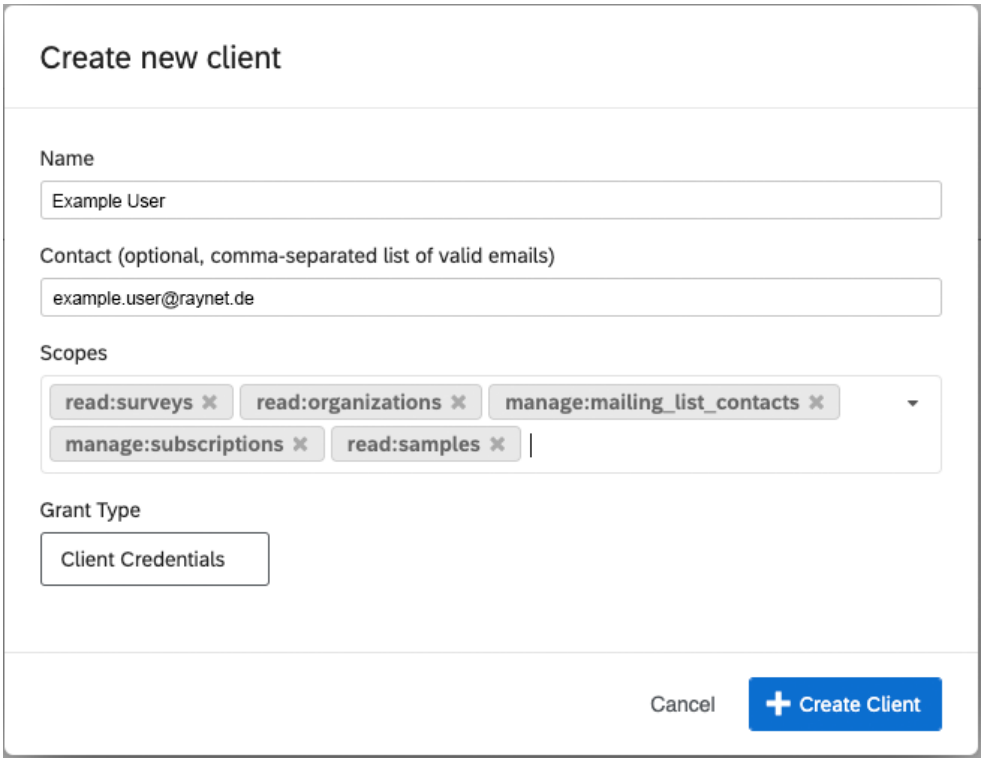
4. Enter the name and the contact information.



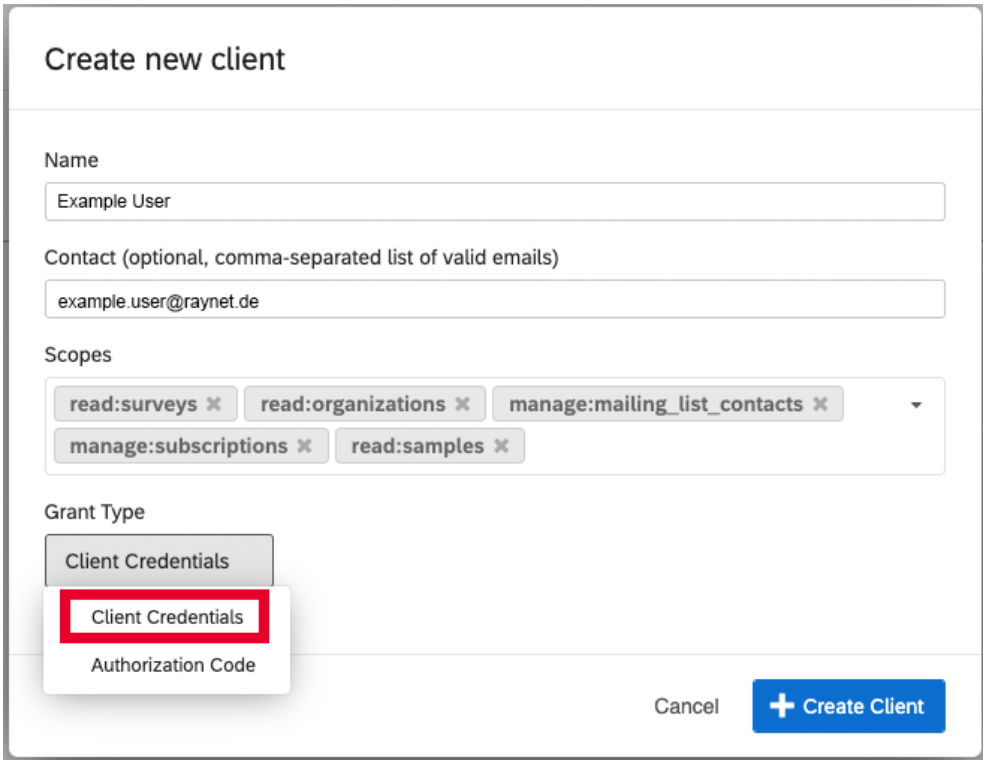
5. Choose the relevant scopes from the dropdown list.



6. Select a scope by clicking on it in the **Scopes** dropdown. Repeat this for all necessary scopes.

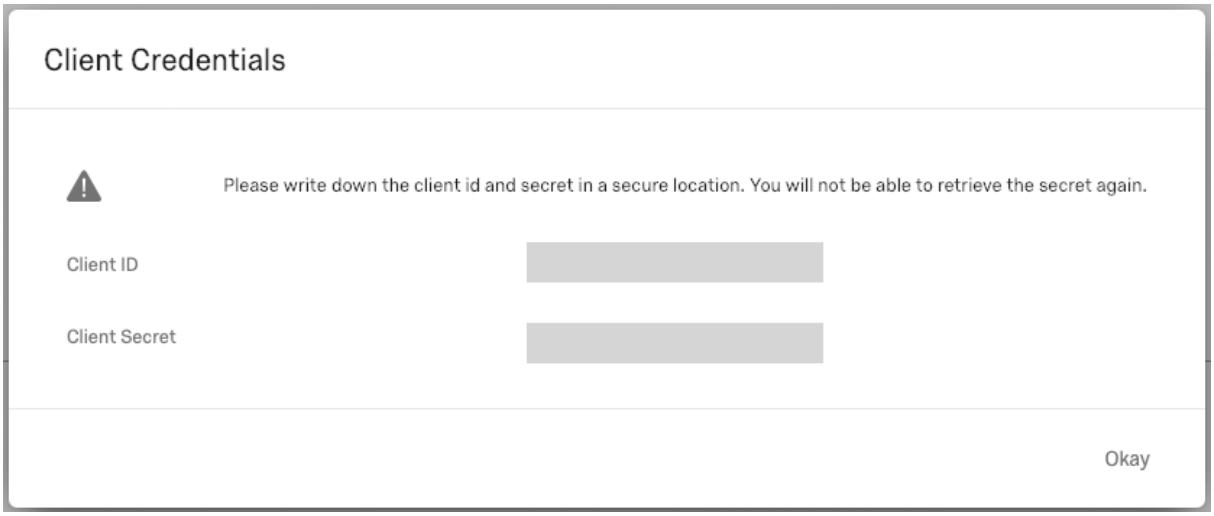


7. Select the grant type **Client Credentials** in order to create the **Client Credentials** for the connector.



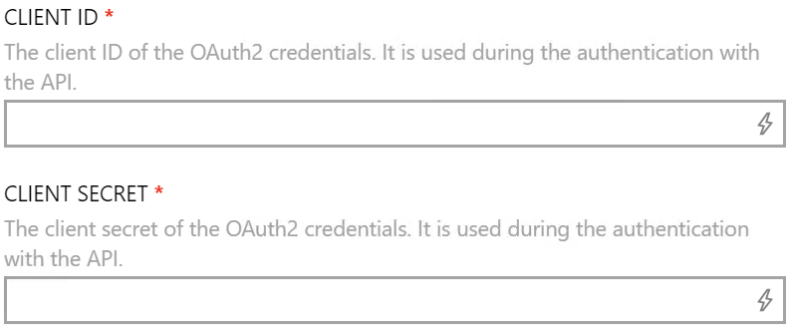
8. Copy the **Client ID** and the **Client Secret** and safe them to a secure locations. It will not be

possible to show these credentials again after closing the window.



Connector Setup

- Enter the ID of the data center for the region into the **DATA CENTER ID** field.



- Enter the Client ID of the OAuth2 credentials used for the authentication with the API into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth2 credentials used for the authentication with the API into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Data Center Id

This parameter contains the ID of the data center of the region.

Technical Name	`data_center_id`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	`cal, fra1`

The data center Id needs to fit with the Client ID and the Client Secret. How to find the data center ID is described in the documentation.

Fetch Audit Events

This parameter contains a Boolean that indicates if audit event data should be fetched.

Technical Name	`fetch_audit_events`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Audit Events Query Interval

This parameter defines the interval of the query time. It only affects Audit Events.

Technical Name	`audit_events_query_interval`
Category	Functional
Type	String
Default Value	`P2W`
Example Values	`P2W, 2020-10-01T14:15Z/2020-11-20T16:00Z, 2020-10-01T14:P2D`

The Audit Events are fetched for the given interval. The interval has to conform to the ISO-8601 standard. Repeating intervals are not supported.

- Example 1: For setting an interval with a `'start date'` and an `'end date'` use `'2020-10-01T14:15Z/2020-11-20T16:00Z`.
- Example 2: For setting an interval with a `'start date'` and a `'duration'` use `'2020-10-01T14:15Z/P2DT5H45M'`.
- Example 3: For setting an interval with a `'duration'` and an `'end date'` use `'P1DT1H45M/2020-11-01T14:15Z'`.
- Example 4: For setting an interval with only a `'duration'` which will go in the past from now we use `'PT21H45M'`.

Authentication

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Client Secret

This parameter contains the client secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`

Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`

Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://{dataCenterId}.qualtrics.com/oauth/token`
Description:	Endpoint to obtain an OAuth token.
Documentation:	https://api.qualtrics.com/api-reference/ZG9jOjg3NjYzOQ-o-auth-authentication-client-credentials

Endpoint:	`https://{dataCenterId}.qualtrics.com/API/v3/users`
Description:	Gets list of users. This endpoint needs the scope `'read:users'`.
Documentation:	https://api.qualtrics.com/api-reference/b3A6NjExMzk-list-users

Endpoint:	`https://{dataCenterId}.qualtrics.com/API/v3/users/{userID}`
Description:	Named `'Get User'` in the documentation. Gets data for a specific user, through the userId. This endpoint needs the scope `'read:users'`.
Documentation:	https://api.qualtrics.com/api-reference/b3A6NjExNDE-get-user

Endpoint:	`https://{dataCenterId}.qualtrics.com/API/v3/logs`
Description:	Retrieve the collection of events by activity type and time interval. This endpoint needs the scope `'read:activity_logs'`.
Documentation:	https://api.qualtrics.com/821e93ec17a62-list-events

Tables

Table	Column	Type
users	• accountCreationDate • accountExpirationDate • accountStatus • divisionId • email • firstName • id • identityProvider • language • lastLoginDate • lastName • organizationId • passwordExpirationDate • passwordLastChangeDate • responseCountsAuditable • responseCountsDeleted • responseCountsGenerated • timeZone • unsubscribed • userType • username	• String • String • String • String • String • String • String • String • String • String • String • String • String • String • Integer • Integer • Integer • String • Boolean • String • String
user_permissions	• calculatedState • group • permissionName • state • subGroup • userId	• String • String • String • String • String • String
audit_events	• authenticationMethod • authenticationMethodVersion • authenticationSecondFactor • brandId • datacenter • failureReason • id • ipAddress • isProxyLogin • isSuccessful • locationAreaCode • locationCity • locationCountryCode • locationDmaCode • locationLatitude • locationLongitude • locationMetroCode • locationPostalCode • locationRegion	• String • String • String • String • String • String • String • String • Boolean • Boolean • Integer • String • String • Integer • Number • Number • Integer • String • String

Table	Column	Type
	• platformDeviceFamily • platformOperatingSystem • platformOperatingSystemVersion • platformUserAgent • platformUserAgentVersion • product • proxyDetailsAgentSessionId • proxyDetailsAgentUserId • proxyDetailsIsUserApproved • proxyDetailsReason • sessionId • source • timestamp • url • userId • username	• String • String • String • String • String • String • String • String • Boolean • String • String • String • String • String • String • String

SAP SuccessFactors

Gets all users managed by SAP SuccessFactors and all registered user accounts which are always associated to a user.

Prerequisites

In order to authenticate against the SuccessFactors OData APIs the connector needs three different elements:

1. **Server URL**
2. **Username**
3. **Password**
4. **Organization/Company ID**

It is necessary to provide the user with role-based permissions to access any OData Entity. These permissions give the user the right to use the API. They do not grant any user interface logon.

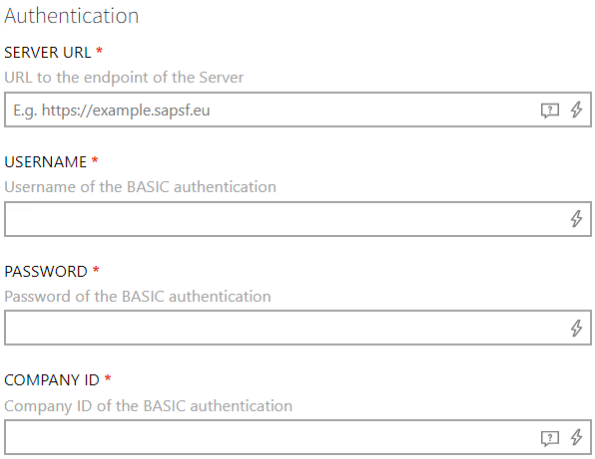
Execute the following steps in order to enable the OData API in SuccessFactors:

1. Navigate to the **Admin Center**.
2. Type "Manage Permission Roles" into the **Tools** search field.
3. Select the permission role.
4. In the **Permission Settings**, click on the **Permission...** button.
5. Under **Manage Integration Tools**, select the **Admin Access to OData API** checkbox.
6. Under **Employee Central API**, select the following checkboxes:
   a. **Employee Central Foundation OData API (read-only)**
   b. **Employee Central HRIS OData API (read-only)**
7. Click on the **Done** button to save the changes.

There are two modes which determine what a user or a user group are authorized to view or do:

- **User Mode**
  Assigned role-based permission settings determine what entities can be viewed and what can be done with them.
- **Admin Mode**
  Allows full access to **Employee Central OData API** entities and operations. This should only be used in a limited number of cases. Mainly technical integrations. The **Admin Mode** overrides any role-based permissions.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.
- Enter the Company ID used for the BASIC authentication into the **COMPANY ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical

Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://example.sapsf.eu`

Get this information on https://help.sap.com/viewer/search?q=HCM%20OData%20api&state=PRODUCTION&format=standard,html,pdf,others.

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	password

Category	Authentication
Type	String
Default Value	n/a
Example Values	

Company ID

This parameter contains the company ID of the BASIC authentication.

Technical Name	`company_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Get this information on https://help.sap.com/viewer/search?q=HCM%20OData%20api&state=PRODUCTION&format=standard,html,pdf,others.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`

Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/odata/v2/User?$expand=personKeyNav`
Description:	Lists people/users managed by Successfactor.
Documentation:	https://api.sap.com/api/PLTUserManagement/resource

Endpoint:	`{+serverUrl}/odata/v2/UserAccount`
Description:	Lists accounts in Successfactor which are associated with a user.
Documentation:	n/a

Endpoint:	`{+serverUrl}/odata/v2/UserAccount({userId})/user`
Description:	Lists accounts in Successfactor which are associated with a user.
Documentation:	n/a

Endpoint:	`{+serverUrl}/odata/v2/PerPerson`
Description:	Lists all persons associated with the EmployeeCentral.
Documentation:	n/a

Endpoint:	`{+serverUrl}/odata/v2/EmpJob`
Description:	List all jobs associated with the Successfactor EmployeeCentral.
Documentation:	https://api.sap.com/api/ECEmploymentInformation/resource

Endpoint:	`{+serverUrl}/odata/v2/EmpEmployment`
Description:	List all employments associated with the Successfactor EmployeeCentral.
Documentation:	https://api.sap.com/api/ECEmploymentInformation/resource

Endpoint:	`{+serverUrl}/odata/v2/FormAuditTrail?$expand=formContent`
Description:	No description available.
Documentation:	n/a

Tables

Table	Column	Type
per_person	• personId • personIdExternal • userId	• String • String • String
emp_job	• emplStatus • userId	• String • String
emp_employment	• isContingentWorker • isEcRecord • personIdExternal • userId	• Boolean • Boolean • String • String
users	• custom01 • custom02 • custom03 • custom04 • custom05 • defaultFullName • defaultLocale • department • division • email • empId • firstName • jobCode • lastModified • lastModifiedDateTime • lastModifiedWithTz • lastName • location • personExternalId • personId • status	• String • String

Table	Column	Type
	• timeZone • userId • username	• String • String • String
accounts	• accountId • accountStatus • createdDateTime • defaultLocale • lastModifiedDateTime • personIdExternal • userId • username	• String • String • String • String • String • String • String • String
form_audit_trail	• auditTrailId • formContentId • formDataId • formSubjectId • status	• String • String • String • String • String

ServiceNow License Data

This connector is used to connect to the ServiceNow REST API and fetches the following tables:

- `sys_user` with a specified subset of all fields
- `sys_user_role`
- `sys_user_has_role`
- `sys_user_group`
- `sys_user_grmember`
- `license_has_user_set`
- `license_details`
- `em_unique_nodes`
- `sys_user_set`
- `ua_app_usage`
- `sys_db_object`
- In addition, the relations of `sys_user_set to sys_user` and `sys_user_group` is determined.

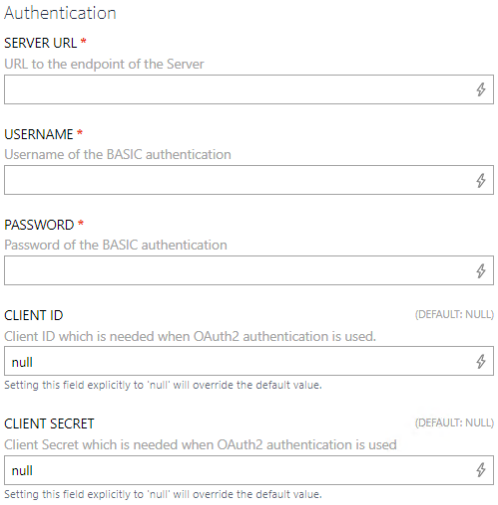
Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. If BASIC authentication is used, only the server URL, username, and password are necessary.

To configure the credentials for the BASIC authentication execute the following steps.

1. Use the Application Navigator in the ServiceNow main window to open **Connections & Credentials > Credentials**.
2. Click on the **New** button.
3. Select the type of credentials. For the BASIC authentication click the Basic Auth Credentials link in the list of credential types.
4. Enter a name for the credentials as well as a user name and password.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical

Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

UA_APP_USAGE_QUERY

This parameter contains the filter for the `ua_app_usage_table`.

Technical Name	`ua_app_usage_query`
Category	Functional
Type	String
Default Value	`time_stamp>javascript:gs.daysAgoEnd(62)`
Example Values	`time_stamp>javascript:gs.daysAgoEnd(62)`

The example/default query fetches the records of the last 62 days. For more complicated queries, consult the documentation.

Fetch Em_unique_nodes

This parameter defines if fetching the table `em_unique_nodes` is activated.

Technical Name	`fetch_em_unique_nodes`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`true`
Example Values	`true`

The table `em_unique_nodes` is not available for all customers. Set this parameter to false if the connector fails when trying to fetch this table.

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the client ID which is used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Client Secret

This parameter contains the client secret which is used for the OAuth2 authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`10000`
Example Values	`10000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+servery}/api/now/doc/table/schema/{tableName}`
Description:	Fetch the column names of any table. This is not documented officially.
Documentation:	n/a

Endpoint:	`{+serverUrl}/api/now/v2/table/{tableName}`
Description:	Fetch data from the table {tableName}.
Documentation:	https://developer.servicenow.com/dev.do#!/reference/api/newyork/rest/c_TableAPI

Endpoint:	`{+serverUrl}/api/now/v2/table/sys_user`
Description:	Fetch data from the table sys_user.
Documentation:	n/a

Endpoint:	`{+serverUrl}/api/now/v2/table/sys_user_role`

Description:	Fetch data from the table sys_user_role.
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/sys_user_has_role
Description:	Fetch data from the table sys_user_has_role.
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/sys_user_group
Description:	Fetch data from the table sys_user_group.
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/sys_user_grmember
Description:	Fetch data from the table sys_user_grmember.
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/license_has_user_set
Description:	Fetch data from the table sys_user_grmember
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/license_details
Description:	Fetch data from the table license_details.
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/em_unique_nodes
Description:	Fetch data from the table em_unique_nodes.
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/sys_user_set
Description:	Fetch data from the table sys_user_set.
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/ua_app_usage

Description:	Fetch data from the table ua_app_usage.
Documentation:	n/a

Endpoint:	`{+serverUrl}/api/now/v2/table/sys_db_object`
Description:	Fetch data from the table sys_db_object.
Documentation:	n/a

Endpoint:	`{+serverUrl}/oauth_token.de`
Description:	Authenticate with the api an returns a token in exchange for valid credentials.
Documentation:	https://docs.servicenow.com/bundle/quebec-application-development/page/integrate/inbound-rest/reference/r_RESTOAuthExample.html

It collects the following tables:

- `sys_user` (with a specified subset of all fields)
- `sys_user_role`
- `sys_user_has_role`
- `sys_user_group`
- `sys_user_grmember`
- `license_has_user_set`
- `license_details`
- `em_unique_nodes`
- `sys_user_set`
- `ua_app_usage`
- `sys_db_object`

Additionally, it collects the relations of `sys_user_set_to_sys_user` and `sys_user_group`.

Tables

Table	Column	Type
user	• active • email • firstName • lastLoginTime • lastName • sysCreatedOn • sysId • userName	• String • String • String • String • String • String • String • String
user_role		
sys_user_has_role		
user_groups		
sys_user_grmember		
sys_user_set		
sys_user_set_to_sys_user	• sysUserId • sysUserSetId	• String • String
sys_user_set_to_sys_user_group	• sysUserGroupId • sysUserSetId	• String • String
license_has_user_set		
license_details		
em_unique_nodes		
ua_app_usage	• accessCount • appId • appName • appType • deleteCount • deleteOtherCount • deleteOwnCount • fulfillCount • insertCount • insertOtherCount • insertOwnCount • produceCount • status • sysId • sysModCount • sysUpdateOn • timeStamp • udpateCount • updateOtherCount • updateOwnCount • user	• Integer • String • String • String • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • String • Integer • String • String • Integer • Integer • Integer • String

Table	Column	Type
sys_db_object	• label • name • sysCreatedOn • sysId • sysPackage • sysPackageName • sysScope • sysScopeName • sysUpdatedOn	• String • String • String • String • String • String • String • String • String

ServiceNow Table

This connector is used to connect to the ServiceNow REST API V2. It collects the required data from a given table.

For more information refer to the ServiceNow Table API documentation.

Changes:
Since version 2021.1 the filename does not contain the table name anymore. If you need the filename to contain the name of the table set it in the output identifier. e.g. files named like `00-1_servicenow.table_{tableName}_{outputIdentifier}_raw.csv` prior to version 2021.1 will be named like `00-1_servicenow.table_table_{outputIdentifier}_raw.csv` from version 2021.1 onwards.

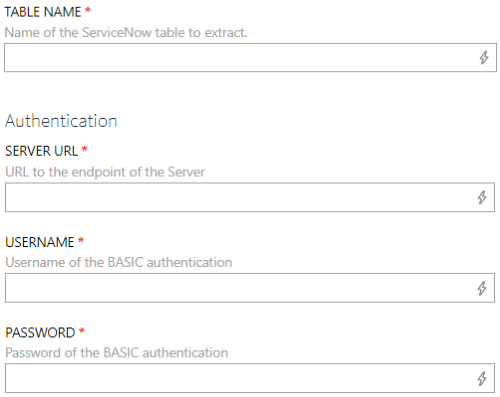
Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. If BASIC authentication is used, only the server URL, username, and password are necessary.

To configure the credentials for the BASIC authentication execute the following steps.

1. Use the Application Navigator in the ServiceNow main window to open **Connections & Credentials > Credentials**.
2. Click on the **New** button.
3. Select the type of credentials. For the BASIC authentication click the Basic Auth Credentials link in the list of credential types.
4. Enter a name for the credentials as well as a user name and password.

Connector Setup



- In the **Configuration** tab, enter the name of the ServiceNow table that should be extracted into the **TABLE NAME** field.
- In the **Connection** tab, enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Table Name

This parameter contains the name of the ServiceNow table to extract

Technical Name	`table_name`
Category	Functional
Type	String

Default Value	n/a
Example Values	

Query

This parameter contains the query string that is used to filter records prior to extraction.

Technical Name	`query`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

Please refer to Operators Available for Filters and Queries in the ServiceNow documentation for query syntax.

Table Fields

This parameter contains a comma-separated list of the table fields to extract.

Technical Name	`fields`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`, `parent,child,type,type.name,updated,sys_updated_on`

A comma-separated list of the table fields to extract. If omitted, all available fields are extracted. In order to fetch fields via dot-walking (e.g. type.name) the fields parameter must be used, since they are not included in the default set.

UI View Name

This parameter contains the name of the ServiceNow UI view that determines the fields to be extracted.

Technical Name	`view`

Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null`

If both parameters Table Fields and the UI View Name are specified, the Table Fields take priority.

Top

This parameter is used to limit the number of records extracted from ServiceNow. If set to null, all records will be retrieved.

Technical Name	`top`
Category	Functional
Type	Integer `null`
Default Value	`null`
Example Values	`null`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the client ID which is used for the OAuth2 authentication.

Technical Name	`client_id`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Client Secret

This parameter contains the client secret which is used for the OAuth2 authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String `null`
Default Value	`null`
Example Values	`null`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`10000`
Example Values	`10000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/api/now/doc/table/schema/{tableName}
Description:	Fetch the column names of any table. This is not documented officially.
Documentation:	n/a

Endpoint:	{+serverUrl}/api/now/v2/table/{tableName}
Description:	Fetch data from the table {tableName}.
Documentation:	https://developer.servicenow.com/dev.do#!/reference/api/newyork/rest/c_TableAPI

Endpoint:	`{+serverUrl}/oauth_token.do`
Description:	Authenticate with the api and returns a token in exchange for valid credentials.
Documentation:	https://docs.servicenow.com/bundle/quebec-application-development/page/integerate/inbound-rest/reference/r_RESTOauthExample.html

Tables

Table	Column	Type
`table`		

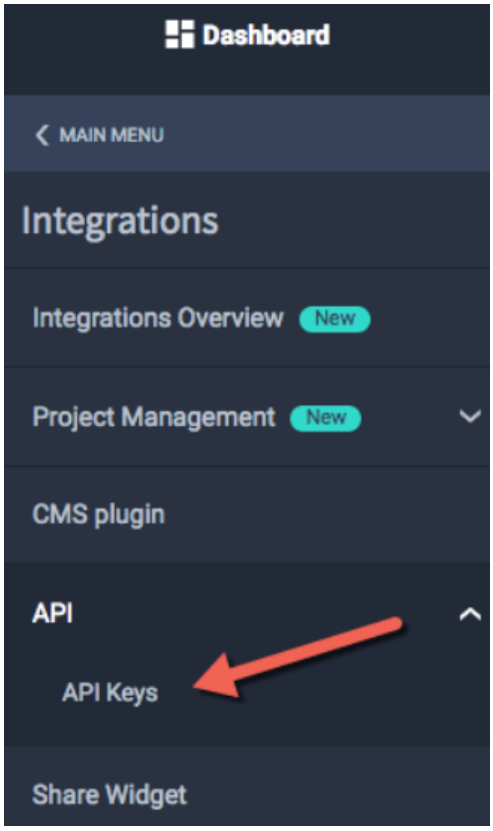
Siteimprove

Connects to the Siteimprove REST API to fetch user data from the SiteImprove Platform.

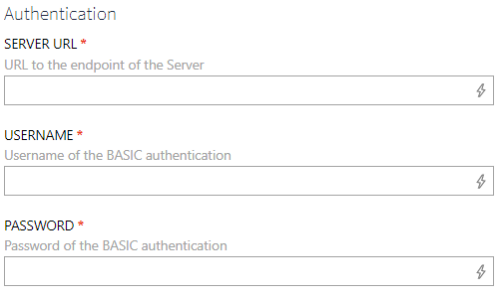
Prerequisites

In order to use the connector it is necessary to connect to the Siteimprove REST API. The connection to the API is only possible using HTTPS and the access to the API requires basic access authentication with a Siteimprove user and the API Key as password.

In order to create the API Key open the **Integrations** menu on the Siteimprove platform and select **API Keys** from the **API** section of the menu.



Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String

Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer

a request will take. On the other hand, a high page size will decrease the total number necessary requests.

> **Be aware:**
> Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
`users`	• `email` • `id` • `lastLogin` • `name` • `role`	• `String` • `String` • `String` • `String` • `String`

Slack Standard

Connects to the Slack REST API. It retrieves users, apps, files and team/workspaces (optional for Enterprise Grid accounts).

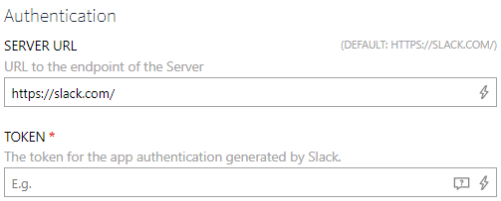
Prerequisites

The connector uses the Classic Oauth 2.0 authentication for apps and needs permissions to the `admin.users:read` scope via an App Token. You must register the connector app inside your organization and then generate a token for it.

In order to set up the connector app and to generate the token the following steps are necessary.

1. Click on the **Create a new Slack app** button inside of the Slack UI.
2. Enter a descriptive name for the app (for example: RayVentory Data Hub) and select a Development Workspace (no matter which workspace is selected, it will be possible to distribute the app to other workspaces if needed).
3. Go to the **OAuth & Permissions** sidebar and click on **Add an Oauth Scope** from the **Scopes** section.
4. Enter the necessary scopes (for the connector the `admin.users:read` scope is needed).
5. Go to a workspace and install the app to the workspace by clicking on the **Install App** button on the sidebar.
6. Click on the **Install App To Workspace** button.
7. The installing user must now click on the **Allow** button in order to confirm that the app is trustworthy.
8. After completing the installation process, the access token for the app can be found inside of the app management page underneath the **OAuth & Permissions** sidebar.

Connector Setup



- Enter the token for the app authentication generated by Slack into the **TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Page Skip

This parameter defines the number of failed pages that are skipped before thoe whole paging fails. Setting this to something other than zero can lead to inconsistent or incomplete data.

Technical Name	`max_skip`
Category	Functional

Type	Integer
Default Value	0
Example Values	`0, 3`

Team ID

This parameter defines if data is fetched for a single workspace. If set to null, all workspaces for 'Enterprise Grid' tear accounts are fetched automatically.

Technical Name	`team_id`
Category	Functional
Type	String `null`
Default Value	`null`
Example Values	`null, null, T0G9PQBBK`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://slack.com`
Example Values	`https://slack.com`

Token

This parameter contains the token for the app authentication generated by Slack.

Technical Name	`token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The connector uses the Classic Oauth 2.0 authentication for apps and needs permissions to the 'admin.users:read' scope via an App Token. You must register the connector App inside your organization and then generate a token for it.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	n/a
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer Null
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/api/users.list`
Description:	Lists all users in a Slack team. Requires 'users:read' and 'users:read.email' (optional).
Documentation:	https://api.slack.com/methods/users.list

Endpoint:	`{+serverUrl}/api/team.integrationLogs`
Description:	Gets the integration logs for the current team. Requires 'admin' scope.
Documentation:	https://api.slack.com/methods/team.integrationLogs

Tables

Table	Column	Type
users	• deleted • displayName • displayNameNormalized • email • has2fa • isAdmin • isBot • isOwner • isPrimaryOwner • isRestricted • isUltraRestricted • realName • realNameNormalized • updated • userId	• Boolean • String • String • String • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • String • String • Integer • String
integration_logs	• appId • appType • changeType • channel • date • reason • scope • serviceId • serviceType • userId • userName	• String • String • String • String • String • String • String • String • String • String • String

SmartCollect DataHub

Connects to the SmartCollect REST API. It fetches the required data from a given table.

Prerequisites

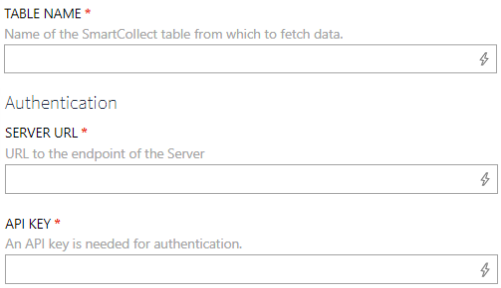
Every request requires a special token, called API key. By using a token, the underlying user to whom the token has been assigned will be impersonated, and the actions treated the same as if the user used his login and password.

To create a token:

1. Sign-in to RayVentory Data Hub.
2. Go to your **Profile** page.
3. Activate the tab **API KEYS**.
4. Press **+ Add** to open the token wizard.
5. Provide the required values.
   - **Name**: The display name of the token. This should be any value which describes the purpose or the owner of the token.
   - **Tenant:** A token is always valid for a specific tenant. This dropdown defines the assignment.
   - **API Key:** This is the actual API key used for authentication. You should leave the default value unless you want to brand your tokens with any pattern.
6. **Important:** Save the API Key to a secure location. As soon as you press **Save changes** or **Discard** this value will be not shown anymore!
7. Save changes by pressing **Save changes** button.

Note:
Tenant database can be optionally encrypted. The API endpoint ensures that the encryption is done transparently - the information sent to the endpoint should be always unencrypted, regardless of the backend and tenant settings.

Connector Setup



- Enter the name of the SmartCollect table from which to fetch data into the **TABLE NAME** field.
- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key that is needed for authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Table Name

This parameter contains the name of the SmartCollect table from which to fetch data.

Technical Name	`table_name`
Category	Functional
Type	String

Default Value	n/a
Example Values	

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

API Key

This parameter contains the API Key to authenticate needed for authentication.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer

Default Value	1000
Example Values	1000

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/ResultDatabase/resultTable/paged`

Description:	This endpoint provides the field names and table
Documentation:	n/a

Tables

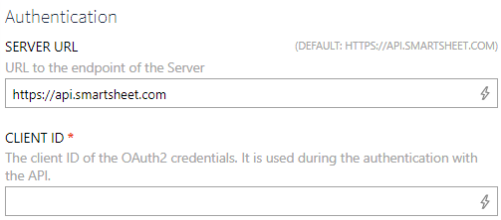
Table	Column	Type
table		

Smartsheet-Platform

This connector is used to connect to the Smartsheet REST API. It collects groups and users.

Prerequisites

Connector Setup



- Enter the Client ID used for the authentication with the API into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.smartsheet.com`
Example Values	`https://api.smartsheet.com`

Client ID

This parameter contains the Client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• email • firstName • id • lastLogin • lastName • name • status	• String • String • String • String • String • String • String
groups	• description • id	• String • String

Table	Column	Type
	• name	• String

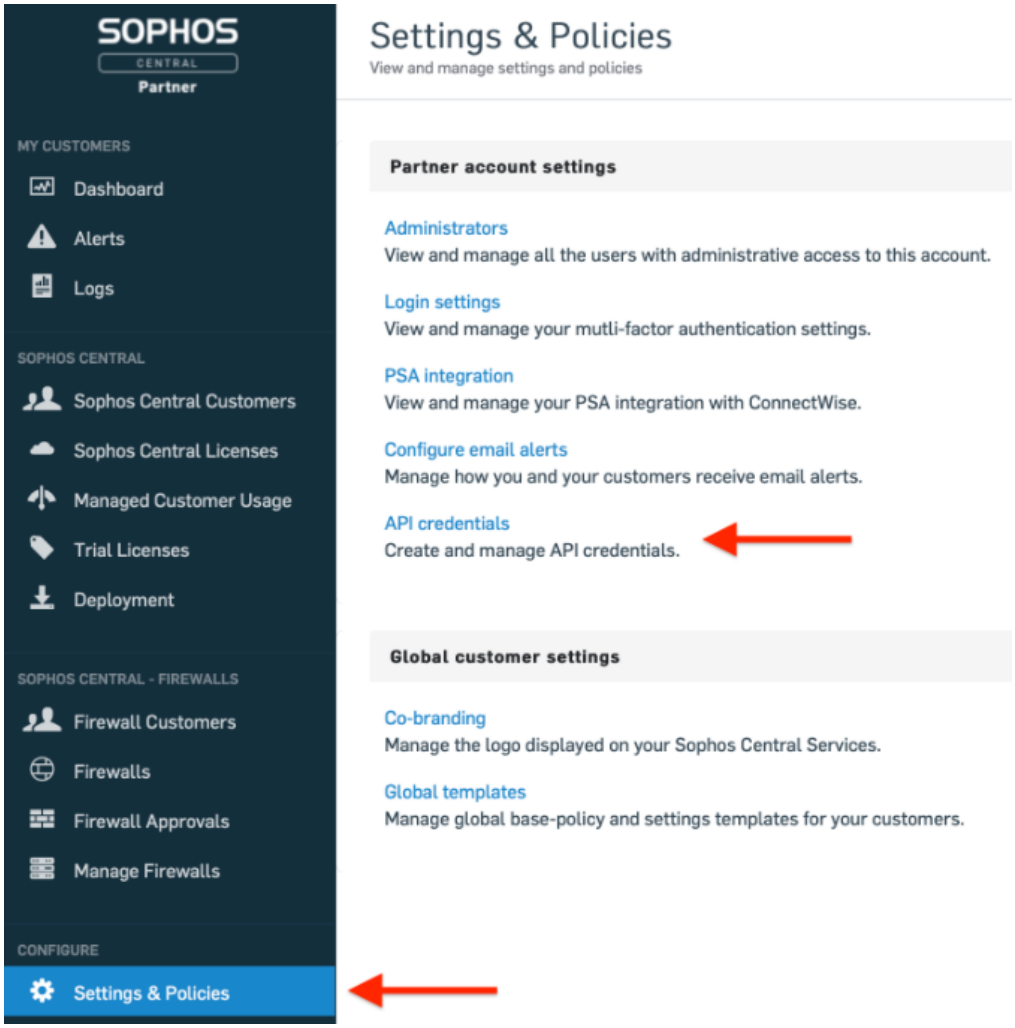
Sophos Central

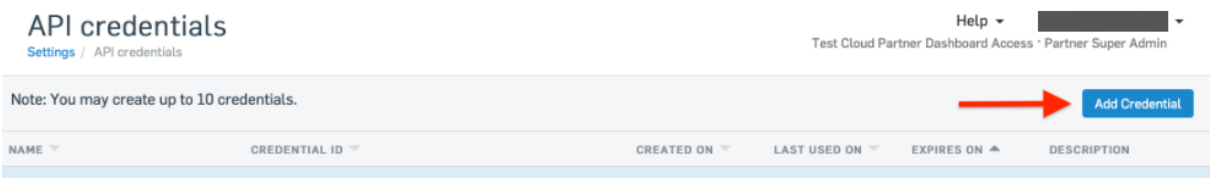
Connects to the Sophos Central API and fetches users and endpoints. The connector first connects to the 'whoAmI' endpoint from which we get the type of the account used (tenant, organization, partner), after that if needed tenants are fetched and after that is done fetching of users and endpoints.

Prerequisites

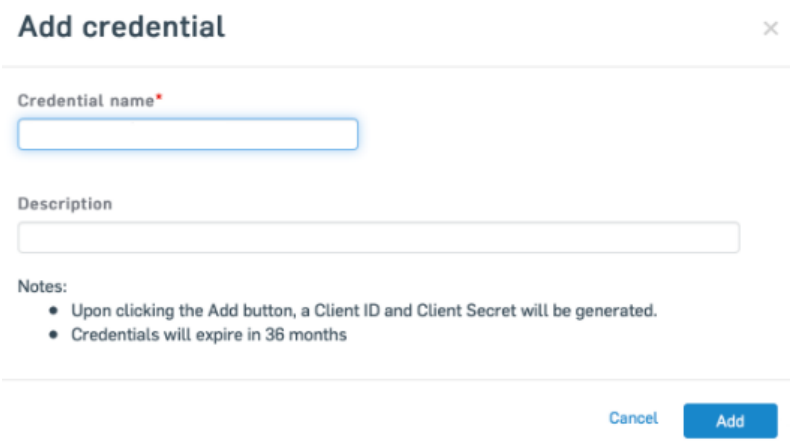
In order to be able to call the the Sophos Central API the following steps are necessary.

1. Sign in to Sophos Central Partner at https://central.sophos.com/manage/partner. First click on **Settings & Policies** and then on **API Credentials**.

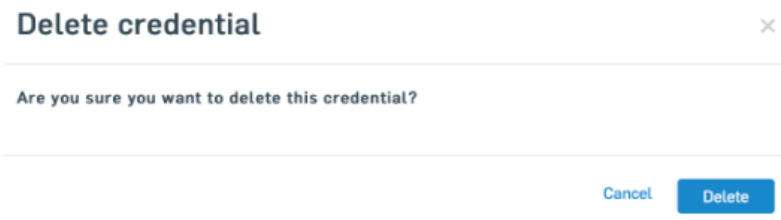




2. Enter a descriptive name for the credentials (for example: RayVentory Data Hub) and add a description. Click on the **Add** button.

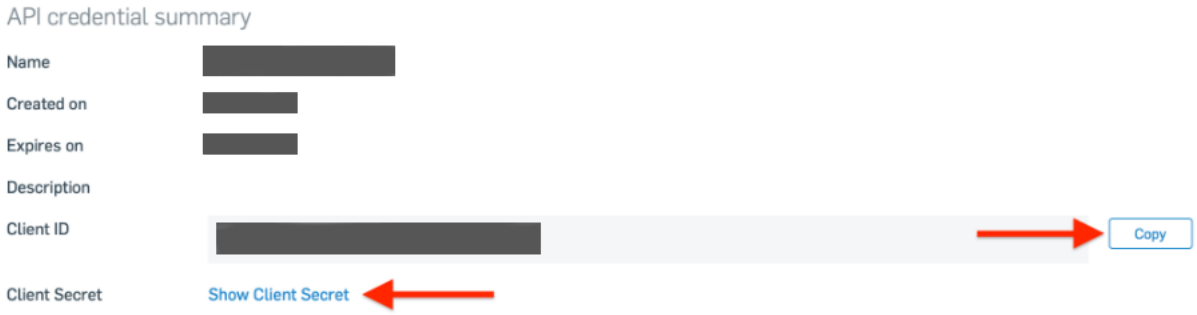


Note:
If the credentials are no longer needed, click on the entry in the credentials list to open the details view. Click on **Delete**. A pop-up will be opened.



Click on **Delete** in the pop-up dialog to confirm the deletion.

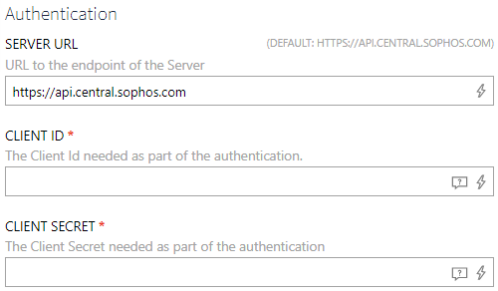
3. Click on **Copy** next to the **Client ID** in order to copy the **Client ID** and store it in a secure location. Now click on **Show Client Secret**.



4. Click on **Copy** next to the **Client Secret** in order to copy the **Client Secret** and store it in a secure location.

> **Be aware:**
> The **Client Secret** will be shown only once. If the **Client Secret** is lost, it cannot be retrieved and it will be necessary to create new credentials.

Connector Setup



- Enter the Client ID used as part of the authentication into the **CLIENT ID** field.
- Enter the Client Secret used as part of the authentication into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.central.sophos.com`
Example Values	`https://api.central.sophos.com`

Client ID

This parameter contains the client ID needed as part of the authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The Client ID is generated during the Application Setup, the whole process is described here.

Client Secret

This parameter contains the client secret that is needed as part of the authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The Client Secret is generated during the Application Setup described with the parameter Client ID.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://id.sophos.com/api/v2/oauth2/token`
Description:	Authenticate with the API and returns an access token in exchange for a valid credentials. Requires SuperAdmin level.
Documentation:	https://developer.sophos.com/intro

Endpoint:	`{+serverUrl}/whoami/v1`
Description:	Get WhoAmI object.
Documentation:	https://developer.sophos.com/intro

Endpoint:	`{+serverUrl}/{idType}/v1/tenants`
Description:	Get tenants.
Documentation:	https://developer.sophos.com/intro

Endpoint:	`{+dataRegion}/endpoint/v1/endpoints`
Description:	Get endpoints.
Documentation:	https://developer.sophos.com/docs/endpoint-v1/1/routes/endpoints/get

Endpoint:	`{+dataRegion}/common/v1/directory/users`
Description:	Get users.
Documentation:	https://developer.sophos.com/docs/common-v1/1/routes/directory/users/get

Tables

Table	Column	Type
endpoints	• associatedPersonId • associatedPersonName • associatedPersonViaLogin • cloudInstanceId • cloudProvider • groupId • groupName • healthOverall • healthThreatsStatus • hostname • id • lastSeenAt • online • osBuild • osIsServer • osMajorVersion • osMinorVersion • osName • osPlatform • servicesStatus • tentantId • type	• String • String • String • String • String • String • String • String • String • String • String • String • String • Integer • Boolean • Integer • Integer • String • String • String • String • String
users	• createdAt • email • exchangeLogin • firstName • id • lastName • name • sourceType • tenantId • updatedAt	• String • String • String • String • String • String • String • String • String • String

Stripe

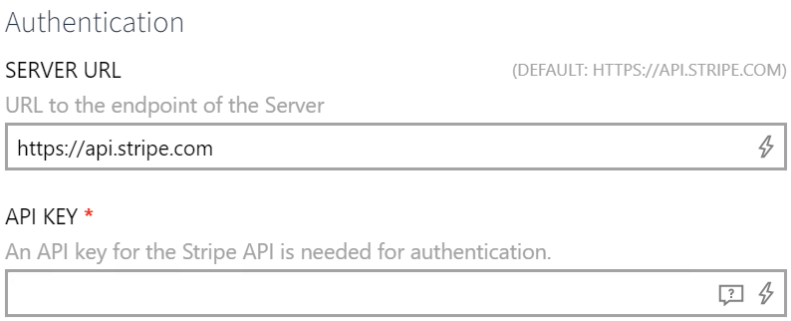
Connects to the Stripe REST API and fetches balance and balance transactions.

Prerequisites

In order to use the connector an API Key is needed. In order to get the API Key for a Stripe Account a user with administrator rights is needed.

- Click on the **Developers** tab at the top right of the Dashboard.
- From the **Developers** menu, select **API keys** and create a new API key by clicking on the **+ Create secret key** button.

Connector Setup



- Enter the API key for the Stripe API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Created Since

This parameter defines the duration since when data will be fetched. It is using the ISO 8601 format.

Technical Name	`created_since`
Category	Functional
Type	String
Default Value	`P30D`
Example Values	`P30D`

Reducing this duration can considerably speed up the total execution time of the connector.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.stripe.com`

Example Values	https://api.stripe.com

API Key

This parameter should contain an API key for the Stripe API that is needed for the authentication.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The authentication process is based on an ApiKey. Information can be found here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/v1/balance
Description:	Fetch balance.
Documentation:	https://www.stripe.com/docs/api/balance/balance_retrieve

Endpoint:	{+serverUrl}/v1/balance_transactions
Description:	Fetch balance transactions.
Documentation:	https://www.stripe.com/docs/api/balance_transactions/list

Tables

Table	Column	Type
balance	• amount • card • currency • type	• Integer • Integer • String • String
balance_transactions	• amount • created • currency • description • id • type	• Integer • Integer • String • String • String • String

SurveyMonkey

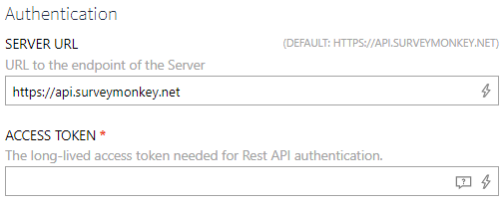
Connects to the SurveyMonkey REST API V3 and fetches members in the team as well as the workgroups. Note that by default the Surveymonkey API is limited to 500 requests per day. If more requests are needed, please contact the Surveymonkey support.

Prerequisites

In order to use the connector an access token is needed. To get the access token it is enough to register the connector as an app in the SurveyMonkey account for which the data will be collected.

Apps can be registered in the **MY APPS** tab. If the connector has already been registered, it is also possible to find the access token there.

Connector Setup



- Enter the long-lived access token needed for authentication with the REST API into the **ACCESS TOKEN** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Fetch Workspaces

This parameter defines if fetching of workspaces is activate. This is only available for enterprise users.

Technical Name	`fetch_workgroups`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.surveymonkey.net`

Example Values	`https://api.surveymonkey.net`

Access Token

This parameter contains the long-lived access token needed for the Rest API authentication.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The access token must be generated interactively as described in the official documentation. Use your favorite tool (e.g. Postman, curl, Firefox Developer Mode) to retrieve the access token after the last redirect. At the time of writing the access token never expires. You should recreate a new token for this connector, so you can revoke access on a per-app basis.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v3/groups`
Description:	Fetch meta infromation about the current group. Requires the View Teams ('groups_read') scope.
Documentation:	https://developer.surveymonkey.com/api/v3/#groups

Endpoint:	`{+serverUrl}/v3/groups/{groupId}/members`
Description:	Fetch members of the current Team. Requires the View Teams ('groups_read') and the View Users ('users_read') scopes.
Documentation:	https://developer.surveymonkey.com/api/v3/#groups-id-members

Endpoint:	`{+serverUrl}/v3/workgroups`
Description:	Fetch the workgroups in the current team. Requires the View Workgroups ('workgroups_read') scope.
Documentation:	https://developer.surveymonkey.com/api/v3/#workgroups

Tables

Table	Column	Type
`group_members`	• `id` • `username`	• `String` • `String`
`workgoups`	• `id` • `membersCount` • `name`	• `String` • `Integer` • `String`
`workgroup_member`	• `userId` • `workgroupId`	• `String` • `String`

Tableau

Connects to the Tableau REST API and fetches users.

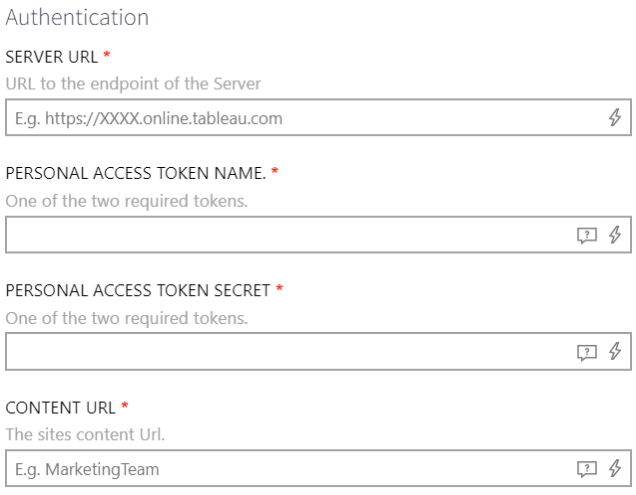
Prerequisites

In order to use this connector it is necessary to create a Personal Access Token on the **My Account Settings** page of the Tableau account. To create a Personal Access Token, execute the following steps.

1. Go to **Personal Access Tokens**.
2. Enter a descriptive name into the **Token Name** field.
3. Click on the **Create new token** button.
4. Click on the **Copy to clipboard** option and close the window.
5. Save the Token Secret to a secure location.

> **Be aware:**
> A personal access token will expire after 15 consecutive days if not used. If used frequently, a personal access token will expire after one year. After a year, it is necessary to create a new token and the expired token will no longer be displayed on the **My Account Settings** page.

Connector Setup



- Enter the URL to the endpoint of the Server into the **SERVER URL** field.
- Enter the name chosen for the required token into the **PERSONAL ACCESS TOKEN NAME** field.
- Enter the Token Secret that was generated for the required token into the **PERSONAL ACCESS TOKEN SECRET** field.
- Enter the content URL (extension) of the site into the **CONTENT URL** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	n/a
Example Values	`https://XXXX.online.tableau.com`

Personal Access Token Name

This parameter contains one of two required tokens.

Technical Name	`personal_access_token_name`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

To use the API, it is necessary that an admin user creates both, a Personal Access Token Name and a Personal Access Token Secret as described here. Personal access tokens will expire if they are not used after 15 consecutive days. If they are used more frequently than every 15 days, an access token will expire after 1 year. After a year, it is necessary to create a new token. The connector will log the expiration date and time of tokens.

Personal Access Token Secret

This parameter contains one of two required tokens.

Technical Name	`personal_access_token_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

To use the API, it is necessary that an admin user creates both, a Personal Access Token Name and a Personal Access Token Secret as described here. Personal access tokens will expire if they are not used after 15 consecutive days. If they are used more frequently than every 15 days, an access token will expire after 1 year. After a year, it is necessary to create a new token. The connector will log the expiration date and time of tokens.

Content URL

This parameter contains the sites content URL.

Technical Name	`content_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The content URL is the subpath of a sites's full URL. In the server environment it is referred to as the Site ID. When manually signing in to the Tableau Server or the Tableau Online, the Content URL is the value that appears in the Browser address bar.

Examples for the Content URL "MarketingTeam":

- Tableau Online: `https://10ay.online.tableau.com/#/site/MarketingTeam/workbooks`
- Tableau Server: `http://MyServer/#/site/MarketingTeam/projects`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverURL}/api/3.12/auth/signin
Description:	Authentication endpoint of the Tableau REST API.
Documentation:	https://help.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref_authentication.htm

Endpoint:	{+serverURL}/api/3.12/sites/{siteID}/users
Description:	User endpoint of the Tableau REST API.
Documentation:	https://help.tableau.com/current/api/rest_api/en-us/REST/rest_api_ref_users_and_groups.htm#get_users_on_site

Tables

Table	Column	Type
users	• authSetting • externalAuthUserId • id • language • lastLogin • locale • name • siteRole	• String • String • String • String • String • String • String • String

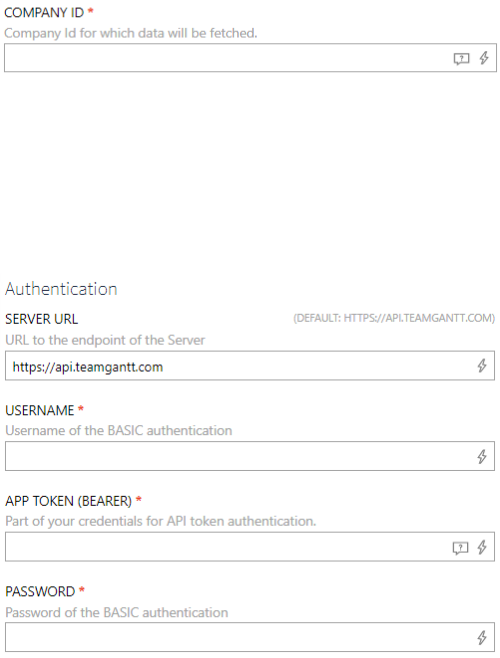
TeamGantt

The connector connects to the TeamGantt API and fetches users and teams.

Prerequisites

In order to use the connector it is necessary to generate an app token (bearer) for the account used with the connector. The token for the account used can be generated at https://app.teamgantt.com/admin/app-tokens.

Connector Setup



- In the **Configuration** tab, enter the Company ID for which data will be fetched into the **COMPANY ID** field. The Company ID can be found as the last part of the URL path after **Company Details** has been selected in the account settings.
  Example:
  `https://app.teamgantt.com/admin/companies/{CompanyID}`
- In the **Connection** tab, enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the Bearer Token which is part of the credentials used for the API Token authentication into the **APP TOKEN (BEARER)** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Company ID

This parameter contains the company ID for which the data will be fetched.

Technical Name	`company_id`
Category	Functional
Type	String
Default Value	n/a
Example Values	

The Company ID can be found as the last part of the URL path, after selecting Company Details in your account settings. An example URL would be `https://app.teamgantt.com/admin/comanies/{CompanyID}`.

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.teamgantt.com`

Example Values	https://api.teamgantt.com

Username

This parameter contains the username of the BASIC authentication

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

App Token (Bearer)

This parameter contains part of your credentials for the API token authentication.

Technical Name	`app_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The App Token (bearer) can be generated here.

Password

This parameter contains the password of the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/v1/authenticate
Description:	Authenticate with the API and returns tokens in exchange for valid credentials.
Documentation:	https://teamgantt.docs.apiary.io/#reference/authentication/authenticate

Endpoint:	{+serverUrl}/v1/companies/{companyId}users
Description:	Company user list.
Documentation:	https://teamgantt.docs.apiary.io/#reference/companies/company-logo/get-users

Endpoint:	`{+serverUrl}/v1/companies/{companyId}/teams`
Description:	Company team list.
Documentation:	https://teamgantt.docs.apiary.io/#reference/teams/company-teams

Table

Table	Column	Type
users	• createdAt • emailAddress • firstName • id • integerations • lastName • permissions • status • timeZone • todayDate	• String • String • String • String • String • String • String • String • String • String
teams	• companyId • id • name	• String • String • String
team_User	• teamId • userId	• String • String

TeamViewer

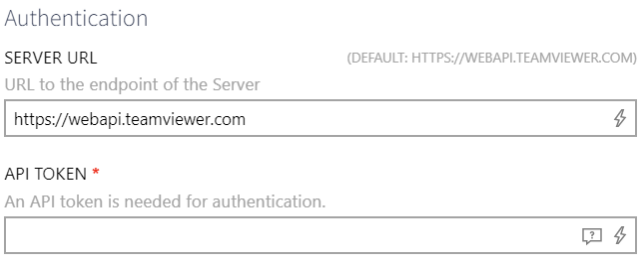
Connects to the TeamViewer REST API. It retrieves users and devices. The API endpoints used do not support pagination.

Prerequisites

In order to use the connector an API Token is necessary. In order to get the required API Token execute the following steps in the Teamviewer Management Console.

1. Open the **profile settings** located in the top right of the website.
2. Select the **Apps** tab and click on **Create script token**.
3. Enter a descriptive name as well as an description for the script.
4. Choose the permissions for the script and click on the **Save** button.
5. Save the Token shown in the **New TeamViewer script** dialog to a secure location.
6. Click on the **Save** button to finalize the process.

Connector Setup



- By default the URL to the endpoint of the server in the **SERVER URL** field is https://webapi.teamviewer.com.
- Enter the API Token that is needed for the authentication with the API into the **API TOKEN** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://webapi.teamviewer.com`
Example Values	`https://webapi.teamviewer.com`

API Token

This parameter contains the API token that is needed for authentication.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The authentication process is based on an API Token. The authentication process with the

TeamViewer process is based on the Script token and is described here in section 3.2: "Registering an application in the Management Console".

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/api/v1/users`
Description:	Get list of users. Requires the `Users.Read` scope.
Documentation:	https://webapi.teamviewer.com/api/v1/docs/index#!/User32Management/Users_Get

Endpoint:	`{+serverURL}/api/v1/devices`
Description:	Get list of devices. Requires the `ContactList.Read` scope.
Documentation:	https://webapi.teamviewer.com/api/v1/docs/index#!/Computers3238ap5932Contacts/Devices_Get

Tables

Table	Column	Type
`users`	• `activatedLicenseId` • `activatedLicenseName` • `activatedSubLicenseName` • `active` • `email` • `id` • `lastAccessDate` • `logSessions` • `name` • `onlineState` • `permissions`	• `String` • `String` • `String` • `Boolean` • `String` • `String` • `String` • `Boolean` • `String` • `String` • `String`
`devices`	• `alias` • `assignedTo` • `description` • `deviceId` • `groupid` • `lastSeen` • `onlineState` • `policyId` • `remotecontrollId` • `supportedFeatures` • `teamviewterId` • `userId`	• `String` • `Boolean` • `String` • `String` • `String` • `String` • `Integer` • `String` • `String` • `String` • `Integer` • `String`

Teamwork CRM

This connector is used to connect to the Teamwork CRM API. It is used to collect user data.

Prerequisites

In order to use the connector the URL to the endpoint and an API key are needed.

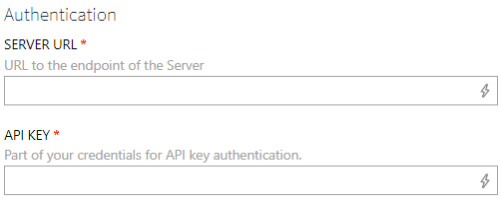
Get the URL

1. Open Teamwork CRM.
2. Copy the URL from the address bar ignoring /crm and everything behind this.

Get the API Key

1. Click on the avatar in the right top.
2. Click on **Settings**.
3. Got to **Personal**.
4. Use the option on the bottom of the screen to generate an API Key.
5. Copy the API Key and save it to a secure location.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key that is part of the credentials for the API Key authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

API Key

This parameter contains part of the credentials for the API key authentication.

Technical Name	`api_key`
Category	Authentication

Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• createdAt • emailAddress • firstName • id • isGlobalAdmin • isProjectsContact • lastName • state • title • updatedAt	• String • String • String • String • String • String • String • String • String • String

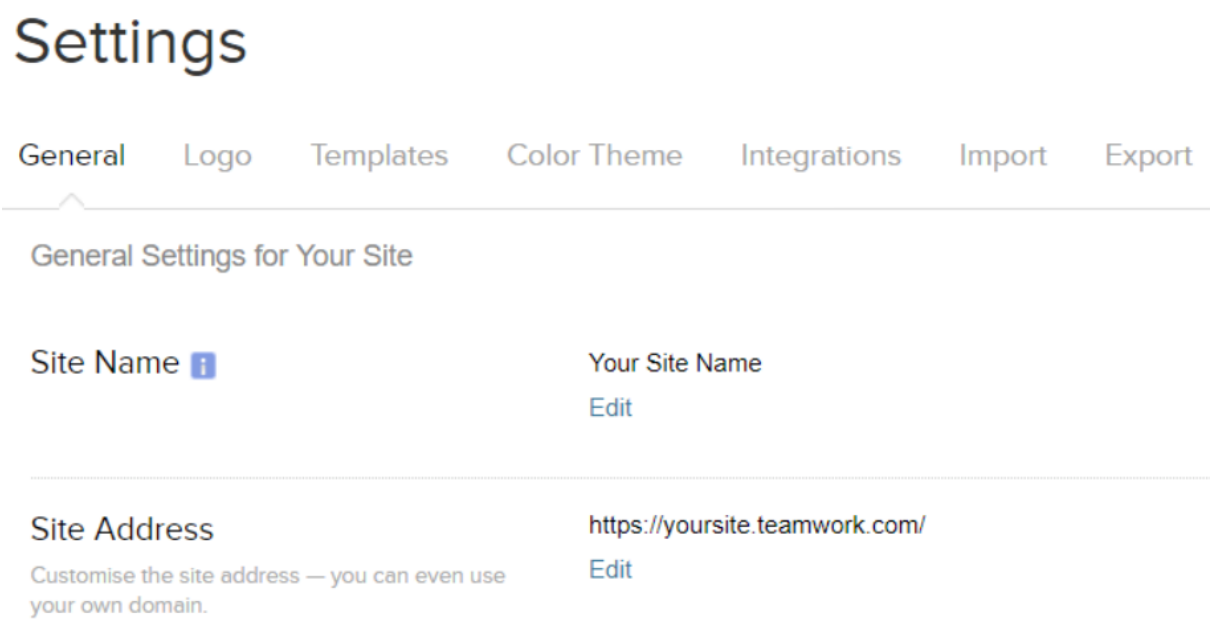
Teamwork Projects

This connector is used to connect to the Teamwork REST API. It collects data from the endpoints Account and People .

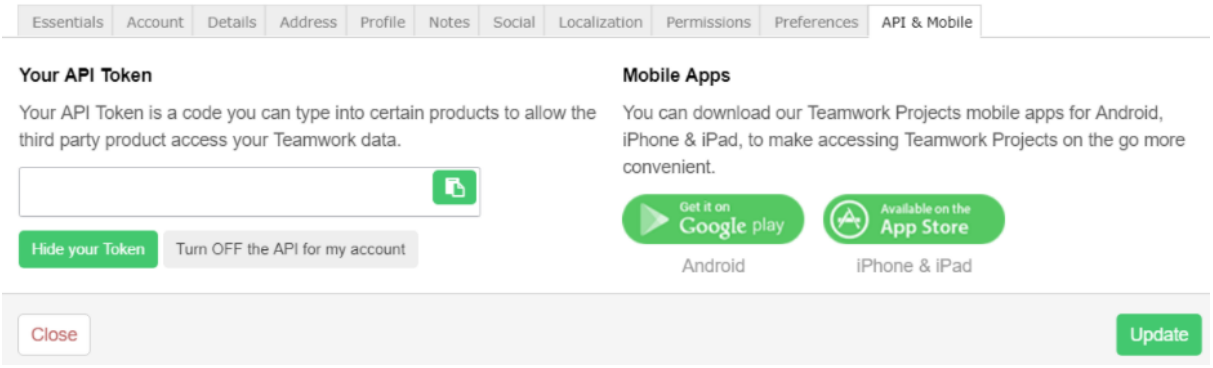
Prerequisites

In order to use the connector the URL and an API token are needed.

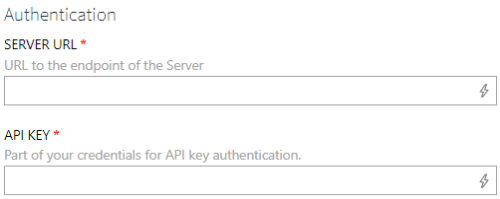
In order to find the correct URL go to the **Settings** section of the Teamwork site. When in the **Settings** section select the **General** tab located at the top right corner of the site. The main project settings will now be shown and the URL can be found in the **Site Address** section.



The API Token can be found by logging into the Teamwork account, clicking on the avatar located in the top right and choosing the **Edit my details** option. Select the **API & Mobile** tab and click on the **Show your Token** button.



Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key that is part of the credentials for the API Key authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

API Key

This parameter contains part of the credentials for the API key authentication.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
account	• billingPeriod • code • companyId • name • pricePlan • pricePlanType • projectsNextBillingDate	• String • String • String • String • String • String • String
users	• addressCountry • administrator • canAccessPortfolio • canAccessTemplates • canAddProjects • canManagePeople • canManagePortfolio • canManageProjectTemplates • canViewProjectTemplates • companyId • companyName • createdAt • deleted • emailAddress • firstName • id • lastLogin • lastName • twoFactorAuthEnabled • userType • username	• String • String

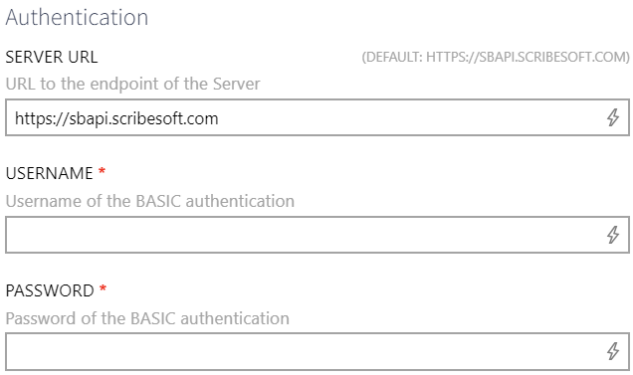
Tibco Scribe

Connects to the Tibco Scribe REST API and retrieves organizations, organization users, and subscriptions.

Prerequisites

To use the connector and connect to the Tibco Scribe REST API only the username and the password of the BASIC authentication are needed.

Connector Setup



- By default the URL to the endpoint of the server in the **SERVER URL** field is https://sbapi.scribesoft.com.
- Enter the username of the BASIC authentication into the **USERNAME** field.
- Enter the password of the BASIC authentication into the **PASSWORD** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://sbapi.scribesoft.com`
Example Values	`https://sbapi.scribesoft.com`

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverURL}/v1/orgs
Description:	List organizations.
Documentation:	https://sbapi.scribesoft.com/#/Organizations/Organizations_GetOrganizations

Endpoint:	{+serverURL}/v1/orgs/{orgId}/users
Description:	List organization users.
Documentation:	https://sbapi.scribesoft.com/#/Organizations/Organizations_GetUsers

Endpoint:	{+serverURL}/v1/orgs/{orgID}/subscriptions

Description:	List organization subscriptions.
Documentation:	https://sbapi.scribesoft.com/#/Subscriptions

Tables

Table	Column	Type
users	• apiToken • captureDuringCloudAppRuns • captureDuringLocalAgentAppRuns • captureOnFailedRecordsForReprocessing • city • country • dataCenterId • dataCenterLocation • dataCenterName • id • isAgentLogDownloadAllowed • isSourceDataLocal • isTibcoOrg • name • parentId • postalCode • primaryContactCity • primaryContactCountry • primaryContactEmail • primaryContactFirstName • primaryContactLastName • primaryContactPhoneNumber • primaryContactPostalCode • primaryContactState • primaryContactStreet • state • status • street • tenantRole • tenantType • website	• String • Boolean • Boolean • Boolean • String • String • Integer • String • String • Integer • Boolean • Boolean • Boolean • String • Integer • String • String • String • String • String • String • String • String • String • String • String • String • String • Integer • String
organization_users	• email • firstName • lastName • organizationId • pendingInvitation • role	• String • String • String • Integer • Boolean • String
subscriptions	• description • expirationDate • id • isTrial • name • orgId • recordsAllowed • recordsProcessed • sku	• String • String • String • Boolean • String • Integer • String • String • String

Table	Column	Type
	• startDate • tscAccountId • tscRegion • tscSubsc	• String • String • String • String
subscription_usages	• date • recordsProcessed • subscriptionId	• String • String • String

TravelPerk

Connects to the TravelPerk REST API to retrieve trip and user data. It requires Premium or Pro account.

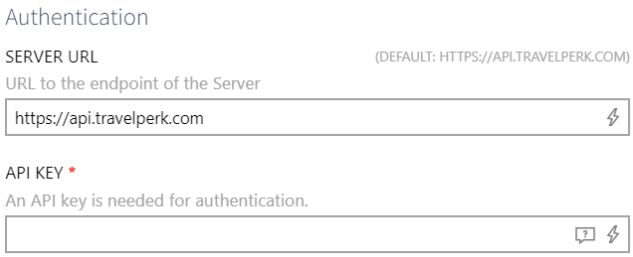
Prerequisites

In order to use the connector it is necessary that either a Premium or a Pro account is being used. The connector cannot be used with a Free account.

To enable the connector to connect to the TravelPerk REST API an API Key is needed. The user creating the API Key needs to have administrative privileges.

The API Key can be created in the **Developers** section under the **Company settings**. Once created it is necessary to save the API Key to a secure location since it will not be possible to view it again.

Connector Setup



- By default the URL to the endpoint of the server in the **SERVER URL** field is https://api.travelperk.com.
- Enter the API Token that is needed for the authentication with the API into the **API TOKEN** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in

time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.travelperk.com`
Example Values	`https://api.travelperk.com`

API Key

This parameter contains the API key that is needed for authentication

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The authentication process is based on an API Key. More information on the authorization with

TravelPerk can be found here. The API Key can be created here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`50`
Example Values	`50`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/trips`
Description:	List trips.
Documentation:	https://developers.travelperk.com/reference#list-all-trips

Endpoint:	`{+serverURL}/users`
Description:	List users.
Documentation:	https://developers.travelperk.com/reference#list-all-users-1

Tables

Table	Column	Type
trips	• end • id • modified • start • status • tripName	• String • String • String • String • String • String
users	• active • firstName • id • jobTitle • lastName • locale • middleName • preferredLanguage • title • userName	• Boolean • String • String • String • String • String • String • String • String • String

Twilio

Connects to the Twilio REST API and fetches usage records.

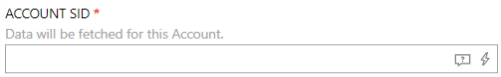
Prerequisites

Authentication in Twilio is based on a username and a password. In Twilio there are two types of credentials.

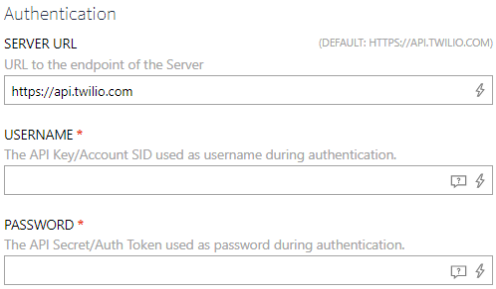
1. The Account SID and the Auth Token which are displaced in the Twilio Console.
2. The API Key and the API Secret (Recommended) which can be created in the Twilio Console.

It is recommended to create a new API Key and API Secret for this connector, because this allows fine-grained revocation.

Connector Setup



- In the **Configuration** tab, enter the Account SID of the account from which to fetch data into the **ACCOUNT SID** field. The username used for authentication can be different from the Account SID. The Account SID can be found in the Twilio API Console menu and is unique for each account.



- In the **Connection** tab, enter the API Key or the Account SID that is used as username during the authentication into the **USERNAME** field. The username entered must not match the Account SID used in the **ACCOUNT SID** field.
- Enter the API Secret or the Auth Token used as password during the authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Account SID

This parameter defines the account for which data will be fetched.

Technical Name	`account_s_i_d`
Category	Functional
Type	String
Default Value	n/a
Example Values	

The username used during authentication might not be same as the Account SID for which to fetch data. The Account SID can be found in the Twilio API Console menu and is unique for each account.

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.twilio.com`
Example Values	`https://api.twilio.com`

Username

This parameter contains the API Key/Account SID used as username during the authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The authentication is based on username and password (Basic) authentication.

There are two types of credentials:
1. Account SID and Auth Token which are displaced in the Twilio Console.
2. API Key and API Secret (Recommended) which can be created in the Twilio Console.

It is recommended to create a new API Key and API Secret for this connector, because it allows fine-grained revocation. If using the API Key and the API Secret for authentication, it is necessary to use the 'Main' type. See Authentication with Twilio's REST API for more information.

Password

This parameter contains the API Secret/Auth Token used as password during authentication.

Technical Name	`password`

Category	Authentication
Type	String
Default Value	n/a
Example Values	

The authentication is based on username and password (Basic) authentication.

There are two types of credentials:
1. Account SID and Auth Token which are displaced in the Twilio Console.
2. API Key and API Secret (Recommended) which can be created in the Twilio Console.

It is recommended to create a new API Key and API Secret for this connector, because it allows fine-grained revocation. If using the API Key and the API Secret for authentication, it is necessary to use the 'Main' type. See Authentication with Twilio's REST API for more information.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`

Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/2010-04-01/Accounts/{accountSID}/Usage/Records.json`
Description:	List usage records.
Documentation:	https://www.twilio.com/docs/usage/api/usage-record

Tables

Table	Column	Type
usage_records	• accountSid • apiVersion • asOf • category • count • countUnit • descriptions • endDate • price • priceUnit • startDate • usage • usageUnit	• String • String • String • String • Integer • String • String • String • Integer • String • String • Integer • String

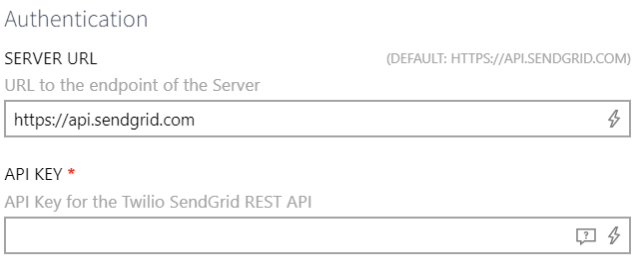
Twilio Sendgrid

Connects to the Twilio Sendgrid REST API and retrieves email stats and contacts.

Prerequisites

In order to use the connector an API Key is needed. The API Key can be generated in the Settings section of the SendGrid account.

Connector Setup



- By default the URL to the endpoint of the server in the **SERVER URL** field is https://api.sendgrid.com.
- Enter the API Token that is needed for the authentication with the Twilio SendGrid REST API into the **API TOKEN** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Email Stats Since

This parameter defines the duration in days since when email statistics will be fetched. The duration is defined using ths ISO 8601 format.

Technical Name	`email_stats_since`
Category	Functional
Type	String
Default Value	`P30D`
Example Values	`P30D, P7D, P15D, P60D, P180D`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.sendgrid.com`

Example Values	`https://api.sendgrid.com`

API Key

This parameter contains the API key for the Twilio SendGrid REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The API Key can be obtained as described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverURL}/v3/stats
Description:	List email statistics.
Documentation:	https://docs.sendgrid.com/api-reference/stats/retrieve-global-email-statistcs

Endpoint:	{+serverURL}/v3/marketing/contacts/count
Description:	Contacts Count.
Documentation:	https://sendgrid.api-docs.io/v3.0/contacts/get-total-contact-count

Tables

Table	Column	Type
email_stats	• blocks • bounceDrops • bounces • clicks • date • deferred • delivered • invalidEmails • opens • processed • requests • spamReportDrops • spamReports • uniqueClicks • uniqueOpens • unsubscribeDrops • unsubscribes	• Integer • Integer • Integer • Integer • String • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer • Integer
contacts_count	• billableCount • contactCount	• Integer • Integer

Typeform

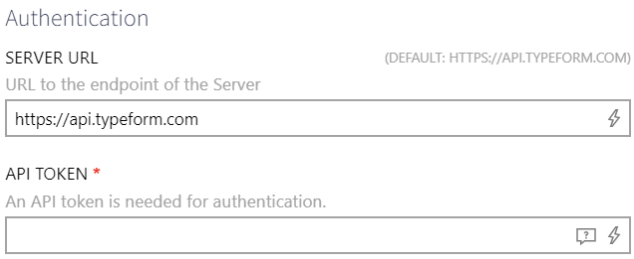
Connects to the Typeform REST API and fetches forms and responses.

Prerequisites

In order to use the connector an API Token is needed. In order to create the token, log in to the Typeform account.

1. Click on **My Account**, which can be found in the dropdown menu next to the profile photo in the upper-right corner.
2. In the left menu, click on **Personal tokens**.
3. Click on **Generate a new token**.
4. Enter a descriptive name into the **Token name** field.
5. Select the scopes for the API Token.
6. Click on **Generate token**.
7. Save the API Token to a secure location.

Connector Setup



- By default the URL to the endpoint of the server in the **SERVER URL** field is https://api.typeform.com.
- Enter the API Token that is needed for the authentication with the Typeform REST API into the **API TOKEN** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222

the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.typeform.com`
Example Values	`https://api.typeform.com`

API Token

This parameter contains the API Token that is needed for the authentication.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The authentication process is based on an API Token. Information about the authorization with

Typeform can be found here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/forms`
Description:	Get forms.
Documentation:	https://developer.typeform.com/create/reference/retrieve-forms/

Endpoint:	`{+serverURL}/forms/{formId}/responses`
Description:	Get responses.
Documentation:	https://developer.typefrom.com/responses/reference/retrieve-responses/

Tables

Table	Column	Type
forms	• id • lastUpdatedAt • title • type	• String • String • String • String
form_responses	• browser • formId • landedAt • landingId • networkId • platform • referer • responseId • submittedAt • token • userAgent	• String • String • String • String • String • String • String • String • String • String • String

Upland Tenrox

This connector is used to connect to Upland Tenrox. Currently it only exports users.

Documentation:

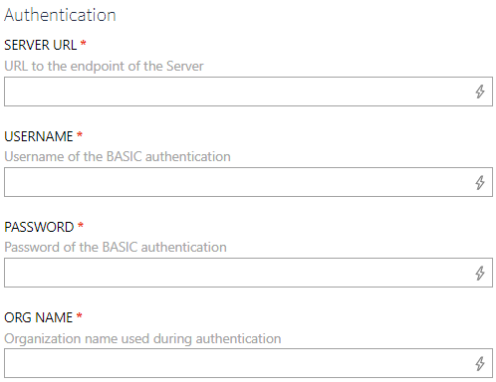
- UPLAND Tenrox REST API
- Users API
- OData URI conventions (used for paging)

Prerequisites

In order to use the connector an access token is needed. To create the token execute the following steps in Smartsheet:

1. Click on the **Account** button. It is located in the upper-right corner of the Smartsheet screen.
2. Click **Personal Settings**.
3. Go to the **API Access** tab.
4. Click on the **Generate new access** token button.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.
- Enter the organization name that is used during the authentication into the **ORG NAME** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional

Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`

Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Org Name

This parameter contains the organization name used during authentication.

Technical Name	`org_name`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`500`
Example Values	`500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
`users`	• `firstName` • `id` • `lastName` • `uniqueId`	• `String` • `String` • `String` • `Integer`

Vanilla Forums

Connects to the Vanilla Forums REST API (V2) and fetches user information.

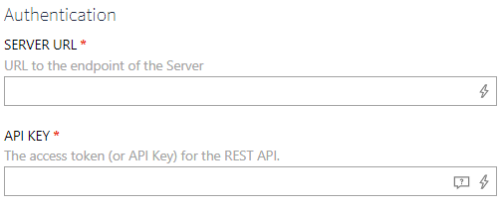
Prerequisites

In order to use the connector it is necessary to create an access token. In order to create an access token execute the following steps:

1. Click on **Edit Profile** while on the **Profile** page.
2. Click on the **Access Tokens** item in the menu.
3. Click on **Generate New Token**.
4. Give the token a descriptive name (for example: RayVentory Data Hub).
5. Click on **Generate** in order to generate the token and save the token to a secure location.

The token will reflect the permissions of the user who has generated it.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Key that is needed for the authentication into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

API Key

This parameter contains the access token (or API key) for the REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The connector requires the generation of a personal access token.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`30`
Example Values	`30`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/users
Description:	Fetch users
Documentation:	https://success.vanillaforums.com/kb/articles/202-apiv2-reference-endpoints#/Users

Endpoint:	{+serverUrl}/subcommunities
Description:	Fetch subcommunities
Extracted Fields:	https://success.vanillaforums.com/kb/articles/2020-apiv2-reference-endpoints#/Subcommunities

Tables

Table	Column	Type
users	• banned • bypassSpam • dateInserted • dateLastActive • dateUpdated • email • emailConfirmed • hidden • name • photoUrl • points • rankId • rankName • rankUserTitle • roles • showEmail • userId	• Integer • Boolean • String • String • String • String • Boolean • Boolean • String • String • Integer • Integer • String • String • String • Boolean • Integer
subcommunities	• folder • locale • name • productBody • productId • productName • siteSectionGroup • siteSectionId • subcommunityId • subcommunityUrl	• String • String • String • String • String • String • String • String • String • String

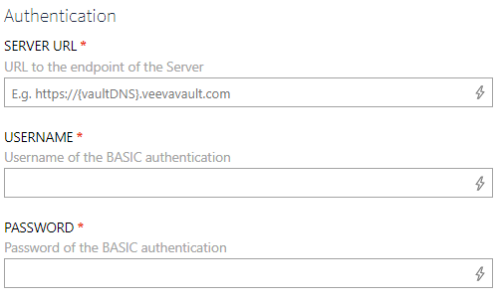
Veeva Vault

Connects to the Vault REST API and fetches the users of the vault via the /api/{version}/metadata/objects/user endpoint. The implementation follows the official documentation.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Page Skip

This parameter defines if and how many pages are skipped before the whole paging fails. If this is set to something other than zero, it can lead to inconsistent or incomplete data.

Technical Name	`max_skip`
Category	Functional
Type	Integer
Default Value	`0`
Example Values	`0, 3`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://{vaultDNS}.veevavault.com`

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer Null
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• active • alias • company • createdDate • domainActive • domainId • domainName • fax • federateId • groupId • id • isDomainAdmin • lastLogin • mobilePhone • modifiedDate • officePhone • salesforceUserName • securityPolicyId • site • userEmail • userFirstName • userLanguage • userLastName • userLocale • userName • userTimeZone • userTitle • vaultId	• Boolean • String • String • String • Boolean • Integer • String • String • String • String • Integer • Boolean • String • String • String • String • String • Integer • String • String • String • String • String • String • String • String • String • String
vaults	• domainName • domainType • vaultApplication • vaultFamilyLabel • vaultFamilyName • vaultId • vaultName • vaultStatus	• String • String • String • String • String • String • String • String
vault_membership	• active • licenceType • securityProfile • userName • vaultId	• Boolean • String • String • String • Integer

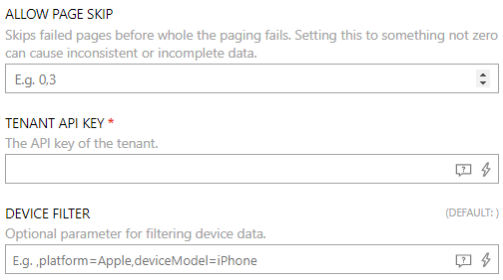
VMware AirWatch

This connector connects to the Workspace ONE UEM (previously: AirWatch) REST API.

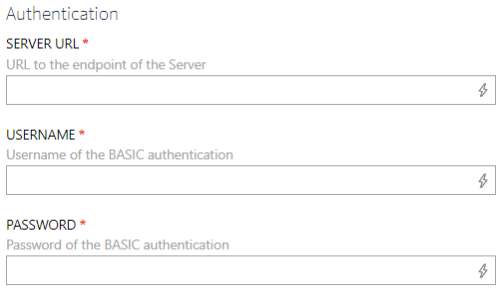
Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- In the **Configuration** tab, enter the API Key for the tenant used into the **TENANT API KEY** field.



- In the **Connection** tab, enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)

Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Allow Page Skip

This parameter defines if and how many pages are skipped before the whole paging fails. If this is set to something other than zero, it can lead to inconsistent or incomplete data.

Technical Name	`max_skip`
Category	Functional
Type	Integer
Default Value	`0`
Example Values	`0, 3`

Tenant API Key

This parameter contains the API key of the tenant.

Technical Name	`tenant_api_key`

Category	Functional
Type	String
Default Value	n/a
Example Values	

The API key that can be found at 'Groups & Setting -> All Settings -> System -> Advanced -> API -> REST API'.

Device Filter

This parameter contains the optional parameter for filtering device data.

Technical Name	`device_filter`
Category	Functional
Type	Array
Default Value	n/a
Example Values	

The parameter must be written exactly as a list of Strings formatted as 'key=value', otherwise the connector may not work as intended.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1500`
Example Values	`1500`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`arp_page_size`

Category	Technical
Type	Integer
Default Value	`300`
Example Values	`300`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Rate Limiter Number of Requests

This parameter limits the number of requests issued in the time interval set by the parameter Rate Limiter Duration.

Technical Name	`rate_limiter_num_requests_per_minute`
Category	Technical
Type	Integer
Default Value	`120`
Example Values	`120, 20`

Rate limiting is done per Organization Group (OG). There are tow different rate limits: for a 1-minute interval and daily. The specific limits depend on the Organization Group.

Rate Limiter Number of Requests

This parameter limits the number of requests issued in the time interval set by the parameter Rate Limiter Duration.

Technical Name	`rate_limiter_num_requests_per_day`
Category	Technical
Type	Integer

Default Value	`50000`
Example Values	`50000, 20`

Rate limiting is done per Organization Group (OG). There are tow different rate limits: for a 1-minute interval and daily. The specific limits depend on the Organization Group.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/api/mdm/devices/search
Description:	Get the device data.
Documentation:	https://resources.workspaceone.com/view/zv5cgwjrcv972rd6fmml

Endpoint:	{+serverUrl}/api/system/users/search
Description:	Get the user data.
Documentation:	https://resources.workspaceone.com/view/zv5cgwjrcv972rd6fmml

Endpoint:	{+serverUrl}/api/mdm/devices/{id}/apps

Description:	Get the applications per device data.
Documentation:	https://resources.workspacone.com/view/zv5cgwjrcv972rd6fmml

Endpoint:	`{+serverUrl}/api/mam/apps/search`
Description:	Get the application data.
Extracted Fields:	https://resources.workspaceone.com/view/zv5cgwjrcv972rd6fmml

Tables

Table	Column	Type
devices	• acLine • assetNumber • complianceStatus • compromiseStatus • currentMcc • dataEncryptionYN • deviceFriendlyName • deviceReportedName • easId • enrollmentStatus • id • imei • isSupervised • lastComplianceCheck • lastCompromisedCheck • lastEnrolledOn • lastSeen • locationGroupId • locationGroupName • macAddress • model • modelId • oemInfo • osVersion • ownership • phoneNumber • platformId • platformName • serialNumber • simMcc • udid • userEmailAddress • userId • userName • virtualMemory	• Integer • String • String • Boolean • String • String • String • String • String • String • String • String • Boolean • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • String • Integer
users	• contactNumber • customAttribute • email • emailUserName • enroleDevicesCount • firstName • group • id • lastName • locationGroupId • messageType	• String • String • String • String • String • String • String • String • String • String • String

Table	Column	Type
	• mobileNumber • role • securityType • status • userName	• String • String • String • Boolean • String
apps	• actualFileVersion • appType • appUrl • applicationName • assignedDeviceCount • assignmentStatus • bundleId • id • installedDeviceCount • isReimbursable • locationGroupId • platform • pushMode • status	• String • String • String • String • Integer • String • String • String • Integer • Boolean • String • Integer • Integer • String
rawapps	• applicationId • applicationIdentifier • applicatoinName • buildVersion • deviceId • isManaged • size • status • type • version	• String • String • String • String • String • String • Integer • Integer • String • String

VMware Customer Connect

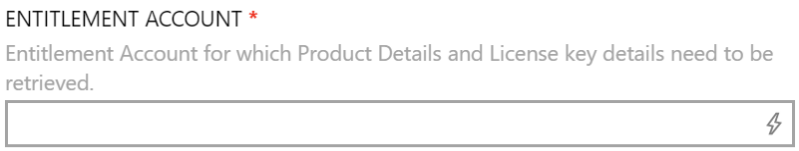
Connects to the VMware Customer Connect API and fetches information on products and licenses.

Prerequisites

In order to connect to the Customer Connect API an API Key is needed. The API key can be created in the Customer Connect portal. A Customer Connect login is needed.

The API key can be created in the **API Management** tab on the **My Profile** page.

Connector Setup



- Enter the Entitlement Account for which the information will be retrieved into the **ENTITLEMENT ACCOUNT** field.

- Enter the API Key that is used as access token for the API into the **API KEY (PERSONAL ACCESS TOKEN)** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Entitlement Account

This parameter contains the Entitlement Account for which Product Details and License key details need to be retrieved.

Technical Name	`data_center_id`
Category	Functional
Type	String
Default Value	`{empty}`
Example Values	

Fetch Folder Users

This parameter can be used to activate or deactivate the fetching of folder users for every license folder.

Technical Name	`fetch_folder_users`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Authentication

API Key (Personal Access Token)

This parameter contains the user's access token to the API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Generation of a Personal Access Token is described in the documentation.

Task Parameters

Page Size

This parameter specifies the page size (number of records) during a paginated API request.

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`10000`
Example Values	`10000`

Changing the page size should only be necessary if running into connection issues or rate limitation. The larger the page the longer every single request takes. However, the total number of necessary requests decreases. The sweet spot depends on the server capabilities and the connection quality. Most APIs limit the maximum page size.

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical

Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://apiqw.vmware.com/v1/m4/api/myvmware/auth/api-tokens/authorize`
Description:	Token endpoint of the Customer Connect API.
Documentation:	https://developer.vmware.com/apis/customer-connect/latest/v1/m4/api/myvmware/auth/api-tokens/authorize/get/

Endpoint:	`https://apiqw.vmware.com/v1/m4/api/myvmware/entitlements/accounts/{entAccount}/licenses/products`
Description:	Gets list of products.
Documentation:	https://developer.vmware.com/apis/customer-connect/latest/v1/m4/api/myvmware/entitlements/accounts/entAccount/licenses/products/get/

Endpoint:	`https://apiqw.vmware.com/v1/m4/api/myvmware/entitlements/accounts/{entAccount}/licenses`
Description:	Gets list of licenses.
Documentation:	https://developer.vmware.com/apis/customer-connect/latest/v1/m4/api/myvmware/entitlements/accounts/entAccount/licenses/get/

Endpoint:	`https://apiqw.vmware.com/v1/m4/api/myvmware/entitlements/accounts/{entAccount}/folders/{folderId}/users`
Description:	Gets list of users entitled to the given license folder.
Documentation:	https://developer.vmware.com/apis/customer-connect/latest/v1/m4/api/myvmware/entitlements/accounts/entAccount/folders/folderId/users/get/

Tables

Table	Column	Type
products	• instanceQuantity • licenseKeysCount • productId • productName • secondaryName • uom	• Integer • Integer • String • String • String • String
licenses	• instanceQuantity • isNewKey • licenseFolder • licenseFolderID • licenseKey • permissionsDivComb • permissionsManage • permissionsUpgDwg • permissionsView • productId • uom	• String • Boolean • String • Integer • String • Boolean • Boolean • Boolean • Boolean • String • String
folder_users	• cn • email • firstName • folderId • isDesigneeServiceOwnerPermission • isFolderAdmin • isManagePermissionk • isOnlySdpUser • isProcurementUser • isServiceOwnerPermission • isSuperUser • lastName	• String • String • String • Integer • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • Boolean • String

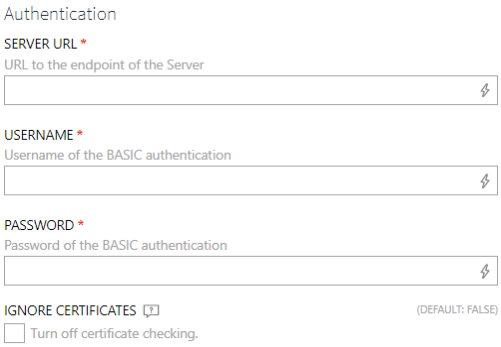
VMware vCenter

This connector uses the Yavijava library to fetch data from vCenter.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL of the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Ignore Certificates

This parameter specifies if certificates are turned off or turned on.

Technical Name	`ignore_certs`
Category	Authentication
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Use with care and only if no GDPR related information is transmitted. In the vmware.vcenter connector only device meta information is involved, thus we can allow invalid certificates.

Extracted Data

Tables

Table	Column	Type
vmhostlicenses	• costUnit • editionKey • hostName • licenseKey • product • total • used • uuid	• String • String • String • String • String • Integer • Integer • String
clusters	• drsEnabled • haEnabled • name • numCpuCores • numCpuThreads • numHosts • totalCPU • totalMemory • usanEnabled	• String • String • String • String • String • String • String • String • String
vmhosts	• cluster • cpuCores • dataCenter • esXi • esxiStatus • isHyperThreadingActive • licenseName • licenseVersion • logical_CPUs • manufacturer • maxEvcKey • model • name • numCPUs • numCpuCoresOverall • numCpuCoresPerCPU • physicalNics • physical_CPUs • powerState • pweronVMs • processorType • sockets • totalHost_Mhz • totalVMs • vCenter	• String • String

Table	Column	Type
vms	• cluster • cpuCoreCount • cpuCount • firmware • fqdn • hardwareVersion • installedOS • instanceUUID • ipAddress • macAddress • moRef • name • numCoresPerSocket • numCpuShares • originalHostName • pwerState • ram • settingOS • totalHDD_GB • uuid • vCenterServer • vmHost • vmHostUUID • vmToolsRunningStatus • vmToolsStatus • vmToolsVersion • vmToolsVersionStatus	• String • String

VMWare vRealize Operations

This connector connects to the vRealize Operations Manager REST API. The connector works in 4 steps:

1. Get the resources but do not write them. Find clusters, VMs and hosts within them.
2. Get the clusters and write them.
3. Get the VMs and write them.
4. Get the hosts and write them.

The API runs locally on the customer's server, where they can configure many things:

- Basic or OAuth2 authentication
- Token validity duration
- Allowed page size
- Rate limitation

> **Note:**
> This connector was never tested because we do not have any credentials, and the connector cannot access the test VM. Even if it could be tested, keep in mind that in the production system there may be different/many more fields than in the test system.

Here are links to some relevant documentation.

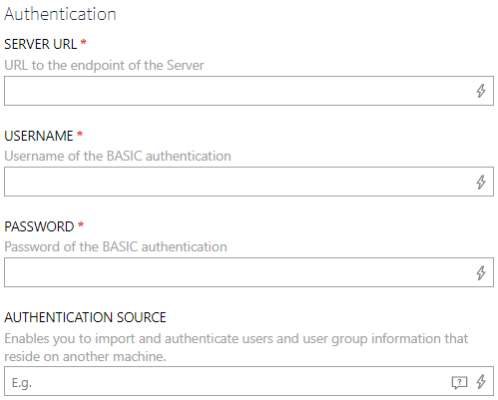
- Overview
- API browser
- Get an authentication token
- Use the authentication token

The test VM, on which you can do some Postman requests:
https://labs.hol.vmware.com/HOL/catalogs/lab/5521\nHOL-1971-01-CMP - What is new in vRealize Operations Manager 7.0

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Header Look Ahead

This parameter contains the number of records fetched beforehand to determine the set of columns. Set this value to `null` for all records. This only applies to clusters.

Technical Name	`header_look_ahed`
Category	Functional
Type	Integer `null`
Default Value	`100000`
Example Values	`100000, null`

Some API endpoints have variable records, but do not describe the columns and respectively the column names beforehand. However, this is necessary to prepare the output CSV. The connector will collect and cache a number of records before writing the first line to the CSV. If this number is too small, then not all fields will be determined, and these will be missing in the final data. If the number is large, the memory consumption of the connector will increase.

Cluster Fields

This parameter contains a comma-separated lists of saved cluster fields.

Technical Name	`cluster_fields`
Category	Functional
Type	Array `null`
Default Value	`null`

Example Values	`null,`
	`configuration|dpmConfiginfo|defaultDpmBehavior,`
	`configuration|dpmConfiginfo|enabled,`
	`configuration|drsconfig|affinityRules,`
	`configuration|drsConfig|defaultVmBehavior,`
	`configuration|drsConfig|enabled,`
	`configuration|drsConfig|vmotionRate,`
	`config|name,`
	`summary|drsTunable,`
	`summary|folder,`
	`summary|parentDatacenter,`
	`summary|parentVcenter,`
	`summary|resourcePool`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter contains the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter contains the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Authentication Source

This parameter can be used to import and authenticate user and user group information that resides on another machine.

Technical Name	`authentication_source`
Category	Authentication
Type	String
Default Value	""
Example Values	""

This parameter is required only if the given user should login via SSO, see here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer Null
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
`clusters`		
`vms`	• `configCpuAllocationLimit` • `configGuestFullName` • `configHardwareDiskSpace` • `configHardwareMemoryKB` • `configHardwareNumCoresPerSocket` • `configHardwareNumCpu` • `configHardwareNumSockets` • `configHardwareThinEnabled` • `configMemoryAllocationLimit` • `configMemoryAllocationReservation` • `configName` • `configVersion` • `cpuSpeed` • `net4000IpAddress` • `net4000MacAddress` • `net4000VnicType` • `resourceId` • `summaryConfigIsTemplate` • `summaryConfigNumEthernetCards`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`

Table	Column	Type
	• summaryDatastore • summaryFolder • summaryGuestFullName • summaryGuestIpAddress • summaryParentCluster • summaryParentDatacenter • summaryParentFolder • summaryParentHost • summaryParentVcenter • summaryRuntimePowerState	• String • String • String • String • String • String • String • String • String • String
hosts	• configDiskSpace • configHyperThreadActive • configHyperThreadAvailable • configName • configProductApiVersion • configProductProductLineId • cpuCpuModel • cpuSpeed • hardwareBiosVersion • hardwareCpuInfoHz • hardwareCpuInfoNumCpuCores • hardwareMemorySize • hardwareServiceTag • hardwareVendorModel • netMgmtAddress • netVmk0IpAddress • netVmnic0DiscoveryProtocolCdpHardwarePlatform • netVmnic0DiscoveryProtocolCdpMangementIpAddress • netVmnic0DiscoveryProtocolCdpSoftwareVersion • netVmnic0DiscoveryProtocolCdpSystemName • resourceId • runtimeMemoryCap • runtimePowerState • summaryHostuuid • summaryParentCluster • summaryParentDatacenter • summaryParentVcenter • summaryVersion • sysBuild • sysProduct	• String • String

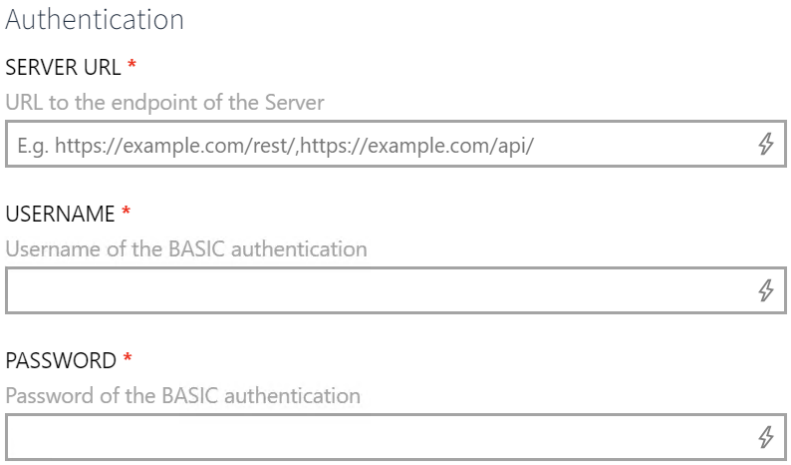
VMware vSphere

Connects to the VMware vSphere Automation API.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL of the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	`"https://example.com/rest/", "https://example.com/api/"`

Username

This parameter should contain the username of the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Password

This parameter should contain the password of the BASIC authentication.

Technical Name	`password`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/com/vmware/cis/session`
Description:	Create a new session using BASIC authentication.

Documentation:	https://developer.vmware.com/apis/vsphere-automation/v7.0U2-deprecated/cis/rest/com/vmware/cis/session/post/

Endpoint:	`{+serverUrl}/vcenter/datacenter`
Description:	List all datacenters. Limited to 1,000 results.
Documentation:	https://developer.vmware.com/apis/vsphere-automation/latest/vcenter/api/vcenter/datacenter/get/

Endpoint:	`{+serverUrl}/vcenter/cluster`
Description:	List all clusters. To avoid congestion, the connector fetches per datacenter. Limited to 1,000 results.
Documentation:	https://developer.vmware.com/apis/vsphere-automation/latest/vcenter/api/vcenter/cluster/get/

Endpoint:	`{+serverUrl}/vcenter/host`
Description:	List all hosts. To avoid congestion, the connector fetches per cluster. Limited to 2,500 results.
Documentation:	https://developer.vmware.com/apis/vsphere-automation/latest/vcenter/api/vcenter/host/get/

Endpoint:	`{+serverUrl}/vcenter/vm`
Description:	List all VMs. The connector fetches per host, to avoid congestion. Limited to 4,000 results.
Documentation:	https://developer.vmware.com/apis/vsphere-automation/latest/vcenter/api/vcenter/vm/get/

Tables

Table	Column	Type
`vms`	• `cpuCount` • `memorySizeMiB` • `name` • `powerState` • `vm`	• `Integer` • `Integer` • `String` • `String` • `String`

VMware Wavefront

This connector is used to connect to the VMWare WaveFront REST API in order to collect data from the WaveFront Console. It collects user and consumption data.

Prerequisites

In order to connect to the Wavefront REST API the connector needs an API token for a Service Account. As a Wavefront administrator it is possible to generate API tokens when creating a service account. It is also possible to create API tokens for an existing service account at a later stage.

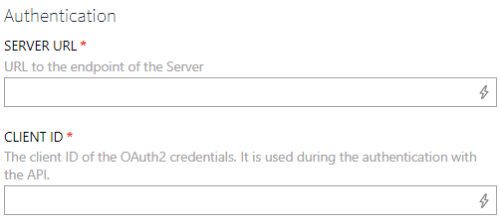
To create an API Token for an existing service account execute the following steps:

1. Click on the gear icon at the top right of the taskbar and select **Account Management**.
2. On the **Service Accounts** tab, click the ellipsis icon next to the service account for which to generate an API token. Select **Edit**.
3. Click Generate in the Tokens section to generate a new token. It is possible to create up to 20 tokens per service account. If there are already 20 tokens for a service account, it is necessary to revoke one of the existing tokens before creating a new one.
4. Click on the Revoke button next to the token in order to revoke a token.

> **Be aware:**
> Revoking a token cannot be undone!

5. Select the appropriate permissions for the service account and click **Update**.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID of the OAuth2 credentials used during the authentication with the API into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String

Default Value	n/a
Example Values	

Client ID

This parameter contains the client ID of the OAuth2 credentials. This information is used while authenticating with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`

Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`10000`
Example Values	`10000`

When a request fails, the connector does a so-called *exponential backoff*. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`3`
Example Values	`3`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• customer • identifier • lastSuccessfulLogin	• String • String • Integer
data_points	• hostName • lastUpdate • metricName • timestamp • value	• String • Integer • String • Integer • Integer

Vonage Contact Centers

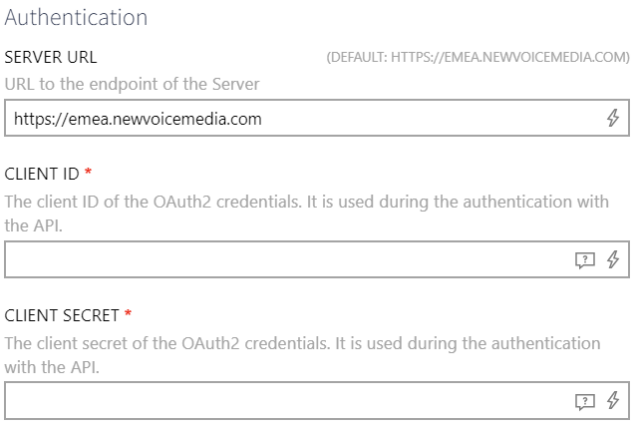
Connects to the Vonage Contact Centers REST API to retrieve user data. This connector uses the (recommended) V2 version of the API, but V4 is already in alpha phase and a transition may be necessary in the future.

Prerequisites

To authenticate with the API, a Client ID and a Client Secret are needed. To create the Client ID and the Client Secret execute the following steps.

1. Log in to the Vonage Contact Center Admin Portal.
2. Go to **API Credentials**.
3. Click on the **Create New** button.
4. In the **Create API Credentials** dialog provide the following information:
   - A descriptive name that can be used to later identify the credentials.
   - The scopes that the API credentials will work with.
5. Click on the **Save API credential** button.
6. Copy the Client ID and the Client Secret and save them to a secure location. It will not be possible to retrieve them again once they are lost.
7. Click on the **OK** button.

Connector Setup



- By default the URL to the endpoint of the server in the **SERVER URL** field is https://emea.newvoicemedia.com.
- Enter the Client ID of the OAuth2 credentials that will be used for the authentication with the API into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth2 credentials that will be used for the authentication with the API into the **CLIENT SECRET** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication

Type	String
Default Value	`https://emea.newvoicemedia.com`
Example Values	`https://emea.newvoicemedia.com, https://nam.newvoicemedia.co`

Client ID

This parameter contains the Client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Vonage REST API uses the Client Credentials grant type from OAuth2. The credentials Client ID and Client Secret can be created as described in the official documentation. The scope required is `users:read`.

Client Secret

This parameter contains the Client Secret of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The Vonage REST API uses the Client Credentials grant type from OAuth2. The credentials Client ID and Client Secret can be created as described in the official documentation. The scope required is `users:read`.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/Auth/connect/token`
Description:	OAuth authentication endpoint.
Documentation:	https://newvoicemedia.atlassian.net/wiki/spaces/VCCA/pages/3567190030/How+to+authenticate+with+a+Vonage+Contact+Center+VCC+API

Endpoint:	`{+serverURL}/useradmin/users/{companyID}/users`
Description:	Retrieve all users.
Documentation:	https://newvoicemedia.atlassian.net/wiki/spaces/VCCA/pages/3568762915/Get+all+users

Tables

Table	Column	Type
`users`	• `active` • `chargeable` • `email` • `license`	• `Boolean` • `Boolean` • `String` • `String`

Table	Column	Type
	• name • ssoExternalId • type • username	• String • String • String • String

Vonage Unified Communications

Connects to the Vonage Unified Communications Provisioning API to retrieve user data.

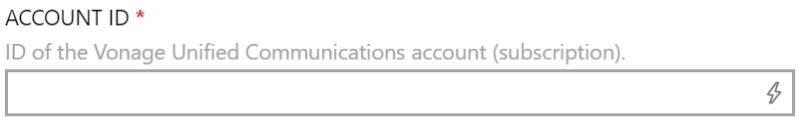
> **Note:**
> The API documentation does not provide any information about rate limits or maximum page size.

Prerequisites

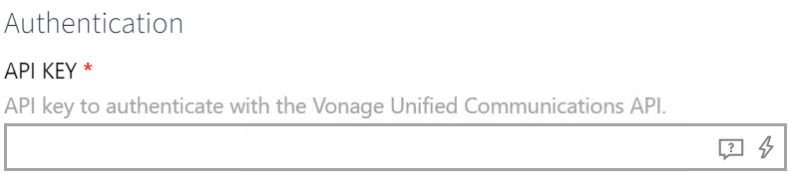
In order to use the connector, an API key is needed. In order to get the API key, it is necessary to add RayVentory Data Hub to the Vonage Application list.

- Log in to the Business Communications Developer Portal using developer credentials.
- Select **Vonage Business Communications** from the platform dropdown list.
- Select **My Applications** from the navigation menu.
- Click on **Add Application**.
- Enter a descriptive name into the Name field and click on the **Add** button.
- To subscribe to the click on the **API Directory** link.
- Select the newly created application from the **My Applications** dropdown and click on **Subscribe**.
- In order to finally create the Access Token, click on **My Applications** in the navigation menu.
- Locate the newly created application in the table and click on the **View** link located in the **Actions** column.
- Select the **Production Keys** tab.
- Enter a valid callback URL into the **Callback URL** field and activate the **Refesh Token** checkbox.
- Click on the **Generate keys** button.

Connector Setup



- Enter the ID of the Vonage Unified Communications account into the **ACCOUNT ID** field.



- Enter the API key that is used to authenticate with the Vonage Unified Communications API into the **API KEY** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Account ID

This parameter should contain the ID of the Vonage Unified Communications account (subscription).

Technical Name	`account_id`
Category	Functional

Type	String
Default Value	{empty}
Example Values	

Authentication

API Key

This parameter should the API key used to authenticate with the Vonage Unified Communications API.

Technical Name	api_key
Category	Authentication
Type	String
Default Value	{empty}
Example Values	

Its creation is described in the official documentation.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	page_size
Category	Technical
Type	Integer
Default Value	100
Example Values	100

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

	Be aware: Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, RayVentory Data Hub does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt. In order to limit the total runtime of the connector, it is possible to set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	https://api.vonage.com/t/vbc.prod/provisioning/api/accounts/
Description:	Retrieve all users of one account.
Documentation:	https://developer.uc.vonage.com/api/provisioning

Tables

Table	Column	Type
users	• email • extensionNumber • firstName • id • lastName • loginName	• String • String • String • Integer • String • String

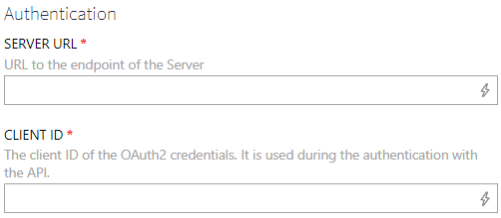
Wingify VWO

This connector is used to connect to the Wingify REST API.

Prerequisites

For the connector to authenticate with the API a Client ID is needed. The Client ID can be received by creating an application using the Developers Dashboard of Wingify. The Developers Dashboard can be found at: https://app.vwo.com/#/developers/application.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID of the OAuth2 credentials used during the authentication with the API into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter contains the client ID of the OAuth2 credentials. It is used during the authentication with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
accounts	• createdOn • enabled • id • name	• String • Boolean • String • String
users	• account • createdOn • department • email • id	• Integer • String • String • String • String

Table	Column	Type
	• name • permission • title	• String • String • String

Workable

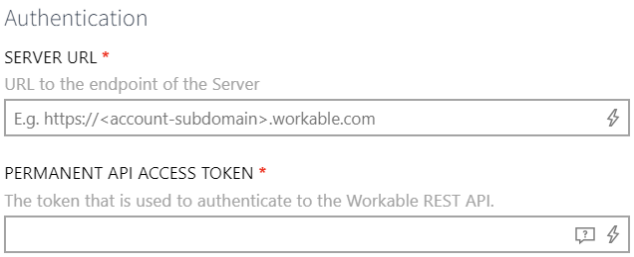
Connects to the Workable API and fetches jobs, candidates, and members.

Prerequisites

In order to use this connector an API Token is needed. To create an API Token execute the following steps.

1. Select **Integrations** from the dropdown menu on the top right of the screen.
2. Click on the **Generate new token** button.
3. Copy the access token and save it to a secure location.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the API Token that is used to authenticate with the Workable REST API into the **PERMANENT API ACCESS TOKEN** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`https://<account-subdomain>.workable.com`

Permanent API Access Token

This parameter contains the token that is used to authenticate to the Workable REST API.

Technical Name	`api_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The token can only be generated by Admin users. The process of generating a token is described

in the official documentation.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/spi/v3/jobs`
Description:	Get all jobs.
Documentation:	https://workable.readme.io/docs/jobs

Endpoint:	`{+serverURL}/spi/v3/candiates`
Description:	Get candidates.
Documentation:	https://workable.readme.io/docs/job-candidates-index

Endpoint:	`{+serverURL}/spi/v3/members`
Description:	Get members.
Documentation:	https://workable.readme.io/docs/members

Tables

Table	Column	Type
jobs	• city • code • country • countryCode • createdAt • department • fullTitle • id • locationStr • region • regionCode • shortcode • shortlink • state • telecommuting • title • url • zipCode	• String • String • String • String • String • String • String • String • String • String • String • String • String • String • Boolean • String • String • String
candidates	• accountName • accountSubdomain • createdAt • disqualificationReason • disqualified • domain • email • firstname • headline • id • jobShortcode • jobTitle • lastname • name • sourced • stage • updatedAt	• String • String • String • String • Boolean • String • String • String • String • String • String • String • String • String • Boolean • String • String
members	• email • headline • id • name • role	• String • String • String • String • String

Workbooks CRM

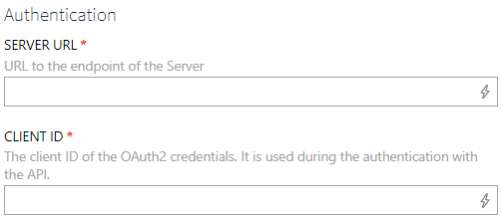
This connector is used to connect to the Workbooks CRM. It collects user data. n

Prerequisites

An API Key can be created under **Start > Configuration > Email & Integration > API Keys > New API Key**.

1. Use the **Access as User** dropdown menu to select the target user (choose a user that has at least read permissions for the data needed).
2. Enter a descriptive name for the API Key (for example: RayVentory Data Hub).
3. Click on **Save & Close**.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID of the OAuth2 credentials used during the authentication with the API into the **CLIENT ID** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Client ID

This parameter should contain the client ID of the OAuth2 credentials. This information is used while authenticating with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer

	null
Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
users	• createdAt • id • isAutomationUser • isDeleted • isEnabled • lastSuccessfulLogin • loginName • personName	• String • Integer • String • String • String • String • String • String

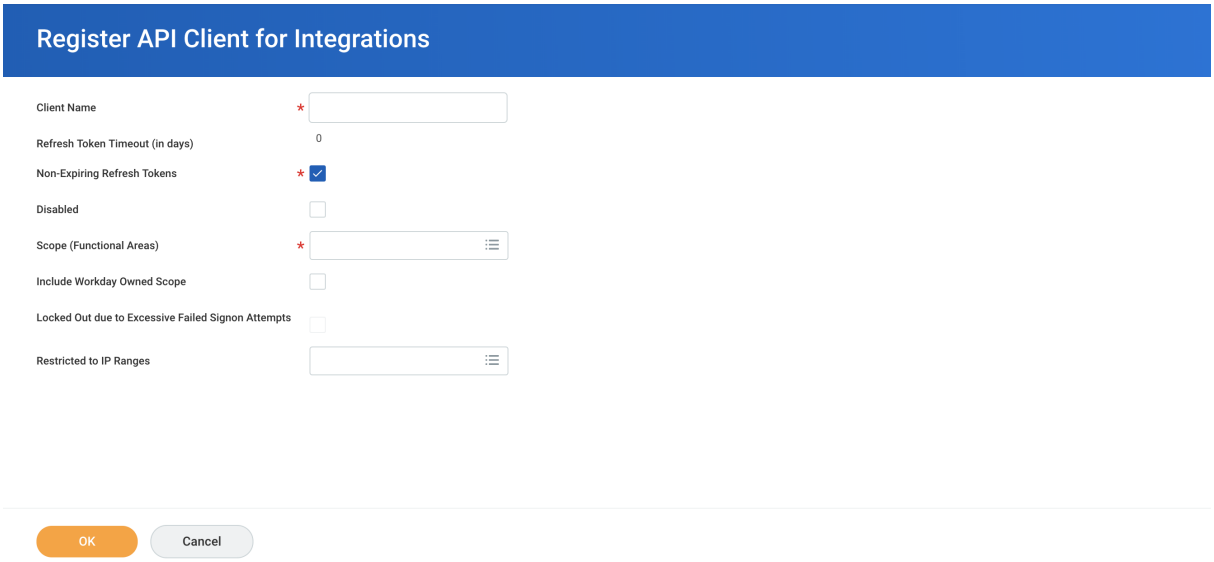
Workday

Connects to the Workday REST API to retrieve worker data.

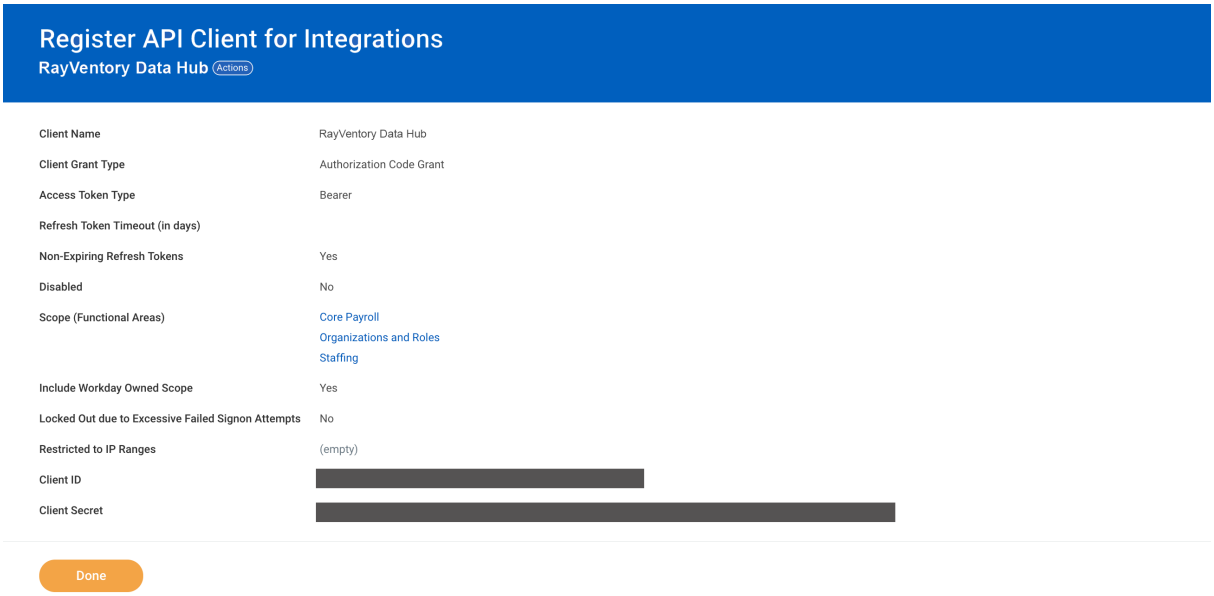
Prerequisites

In order to use the Workday connector it is necessary to create an API Client. In order to create an API Client execute the following steps:

1. Navigate to the **Register API Client for Integrations** page.

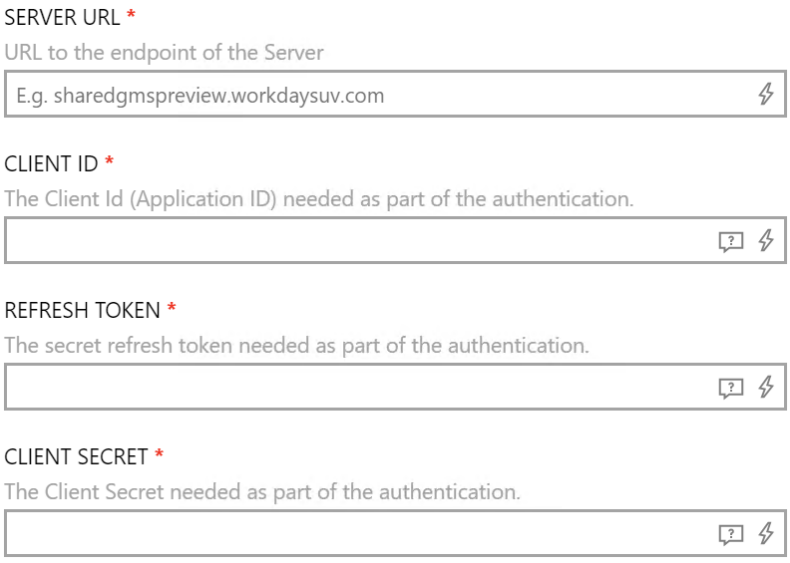


2. Enter a meaningful name into the **Client Name** field.
3. Select the **Non-Expiring Refresh Tokens** option.
4. Select all necessary scopes in the **Scope (Functional Areas)** field.
5. Click on the **OK** button.



6. Save the **Client ID** and the **Client Secret** to a secure location.
7. Select **Action** > **API Client** > **Manage Refresh Tokens for Integrations**.
8. Select the integration user.
9. Select **Generate new refresh token**, copy the new Refresh Token and safe it to a secure location.

Connector Setup



- Enter the Server URL to the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID that is needed as part of the authentication into the **CLIENT ID** field.
- Enter the Refresh Token that is needed as part of the authentication into the **REFRESH TOKEN** field.
- Enter the Client Secret that is needed as part of the authentication into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`api_key`
Category	Authentication

Type	String
Default Value	`{empty}`
Example Values	`sharedgmspreview.workdaysuv.com`

Client ID

This parameter contains the Client ID (Application ID) needed as part of the authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The Client ID is generated during the registration of the API for integrations. It is also needed for the generation of the Refresh Token.

Refresh Token

This parameter contains the secret refresh token that is needed as part of the authentication.

Technical Name	`refresh_token`
Category	Authentication
Type	String
Default Value	`{empty}`
Example Values	

The connector will generate short-lived access tokens for the requests based on a long lived refresh token. The refresh token must be generated interactively with the Client Secret and the Client ID as described in the official documentation.

Client Secret

This parameter contains the client secret that is needed as part of the authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String

Default Value	`{empty}`
Example Values	

The Client Secret is generated during the registration of the API for integrations. It is also needed for the generation of the Refresh Token.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`

Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer Null
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`

Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`https://{serverUrl}/ccx/oauth2/gms/token`
Description:	Authenticate with the API and returns a token in exchange for valid credentials.
Documentation:	https://developers.marketo.com/rest-api/authentication

Endpoint:	`https://{serverUrl}/ccx/api/v1/gms/workers`
Description:	Retrieves a collection of workers (user data).
Documentation:	https://www.youtube.com/watch?v=dB2aOJApzeI&list=PLSOBs3HgPrkE0hHad4Wg_GeM4xN01dp3f&index=9

Tables

Table	Column	Type
`worker`	• `businessTitle` • `descriptor` • `href` • `id` • `isManager` • `primarySupervisoryOrganizationDescriptor` • `primarySupervisoryOrganizationHref` • `primarySupervisoryOrganizationId` • `primaryWorkEmail` • `primaryWorkPhone`	• `String` • `String` • `String` • `String` • `Boolean` • `String` • `String` • `String` • `String` • `String`

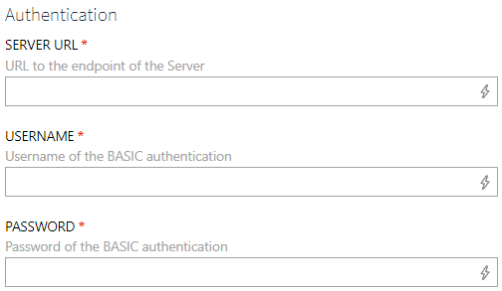
Zendesk Support

This connector is used to connect to the Sunshine API of Zendesk. It collects user data.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the URL to the endpoint of the server into the **SERVER URL** field.
- Enter the username of the user used for the BASIC information into the **USERNAME** field.
- Enter the password of the user used for the BASIC information into the **PASSWORD** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Username

This parameter specifies the username that is used for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter specifies the password that is used for the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Tables

Table	Column	Type
`users`	• `active` • `createdAt` • `email` • `id` • `lastLoginAt` • `name` • `organizationId` • `role` • `updatedAt`	• `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String` • `String`

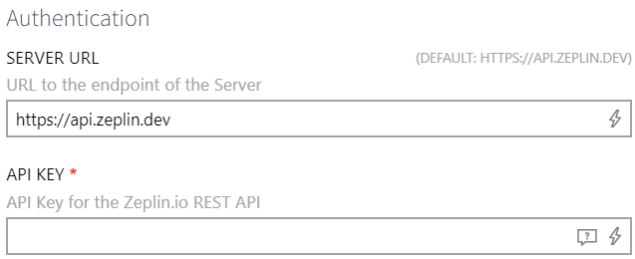
Zeplin.io

Connects to the Zeplin.io REST API. It fetches organizations and organization members and writes members per organization.

Prerequisites

In order to use the connector an API Token is needed for the authentication with the Zeplin.io REST API. The API Token can be created in the Zeplin web app. In order to create the API Token go to the **Developer** tab on the **profile** page and click on the **Create new token** button.

Connector Setup



- By default the URL to the endpoint of the server in the **SERVER URL** field is https://api.zeplin.dev.
- Enter the API Token that is needed for the authentication with the Zeplin.io REST API into the **API TOKEN** field.

Connector Parameter

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.zeplin.dev`
Example Values	`https://api.zeplin.dev`

API Key

This parameter contains the API Key used for the authentication with the Zeplin.io REST API.

Technical Name	`api_key`
Category	Authentication
Type	String
Default Value	n/a
Example Values	`{empty}`

The API Key can be obtained as described here.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`100`
Example Values	`100`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null` `10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the delay starts with the time defined in this parameter and will then exponentially increase with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the delay increases with every failed attempt up to the duration defined in this parameter or until the request was successful.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverURL}/v1/organizations`
Description:	List organizations.
Documentation:	https://docs.zeplin.dev/reference#getorganizations

Endpoint:	`{+serverURL}/v1/organizations/{orgId}/members`
Description:	List organization members.
Documentation:	https://docs.zeplin.dev/reference#getorganizationmembers

Tables

Table	Column	Type
`organization_members`	• `email` • `id` • `invited` • `lastSeen` • `organizationId` • `restricted` • `role`	• `String` • `String` • `Integer` • `Integer` • `String` • `Boolean` • `String`

Table	Column	Type
	• username	• String

Zoho Books

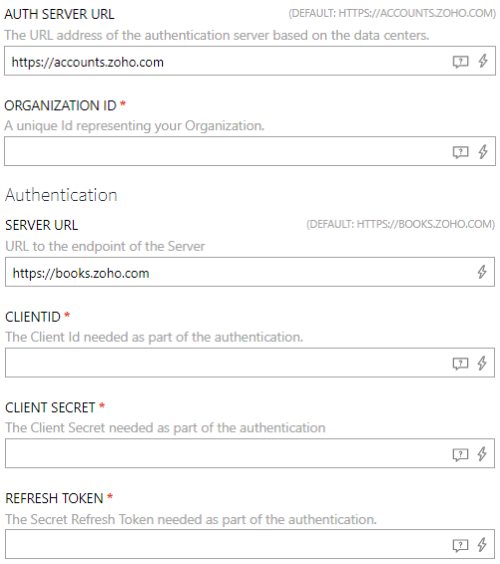
Connects to the Zoho Books V3 API and fetches users and invoices.

Prerequisites

To use the Zoho Books API the following prerequisites must be fulfilled.

1. A valid Zoho username and password is needed.
2. An authentication token, also called oauthtoken is also needed.

Connector Setup



- In the **Configuration** tab, enter the unique ID representing the organization into the **ORGANIZATION ID** field.
- In the **Connection** tab, enter the Client ID that is needed as part of the authentication into the **CLIENTID** field.
- Enter the Client Secret that is needed as part of the authentication into the **CLIENT SECRET** field.
- Enter the Secret Refresh Token that is needed as part of the authentication into the **REFRESH TOKEN** field.
- If the Zoho Books server is not located in the US Data Center the default URL in the **SERVER URL** field needs to be changed to one of the following URLs:
  - Europe: https://books.zoho.eu/
  - India: https://books.zoho.in/
  - Australia: https://books.zoho.com.au/

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`

Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Auth Server URL

This parameter contains the URL address of the authentication server based on the data centers.

Technical Name	`auth_server_url`
Category	Functional
Type	String
Default Value	`https://accounts.zoho.com`
Example Values	`https://accounts.zoho.com, https://accounts.zoho.com, https://accounts.zoho.eu, https://accounts.zoho.in, https://accounts.zoho.com.au`

Documentation regarding data centers can be found here.

Organization ID

This parameter contains the unique ID representing the organization.

Technical Name	`organization_id`

Category	Functional
Type	String
Default Value	n/a
Example Values	

An organization ID can be obtained as described here.

Authentication

Server URL

This parameter contains the URL to the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://books.zoho.com`
Example Values	`https://books.zoho.com`

ClientID

This parameter contains the client ID that is needed as part of the authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The whole process of authorization is described here. The client ID is generated during the Application Setup.

Client Secret

This parameter contains the client secret needed as part of the authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The client secret is generated during the Application Setup described with the parameter client ID.

Refresh Token

This parameter contains the secret refresh token needed as part of the authentication.

Technical Name	`refresh_token`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The Refresh Token is a long lived token which can be exchanged for short lived Access Tokens which in turn are used by the connector to fetch the data.

The generation of a Refresh Token is a multi-step process described in the official documentation.

One can use the Self Client from the Zoho Console which is easiest and facilitates the creation of an authentication code. After that one should proceed to Step 2: Generating Grant Token described in the official documentation. It is possible to use multiple tools (e.g. Postman, curl, Firefox Developer Mode) in order to retrieve the refresh token after the last redirect. The refresh token never expires. A new token should be created for this connector in order to be able to revoke access on a per-app basis.

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`200`
Example Values	`200`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+authServerUrl}/oauth/v2/token`
Description:	Authenticate with the API and get an access token in exchange for a valid refresh token.
Documentation:	https://www.zoho.com/books/api/v3/#oauth

Endpoint:	`{+serverUrl}/api/v3/users`
Description:	Get users. Requires the 'ZohoBooks.fullaccess.all' scope, or at least the 'ZohoBooks.settings.READ' scope.
Documentation:	https:/www.zoho.com/books/api/v3/#Users_List_Users

Endpoint:	`{+serverUrl}/api/v3/invoices`
Description:	Get invoices. Requires the 'ZohoBooks.fullaccess.all' scope, or at least the 'ZohoBooks.invoices.READ' scope.
Documentation:	https://www.zoho.com/books/api/v3/#Invoices_List_invoices

Tables

Table	Column	Type
users	• email • isCurrentUser • isEmployee • name • status • userId • userRole • userType	• String • Boolean • String • String • String • String • String • String
invoices_count	• invoicesCount	• Integer

Zoom

This connector is used to connect to the Zoom API. It is used to collect user data, user features, and (optionally) devices, rooms, and meeting durations.

- JWT with Zoom Guide

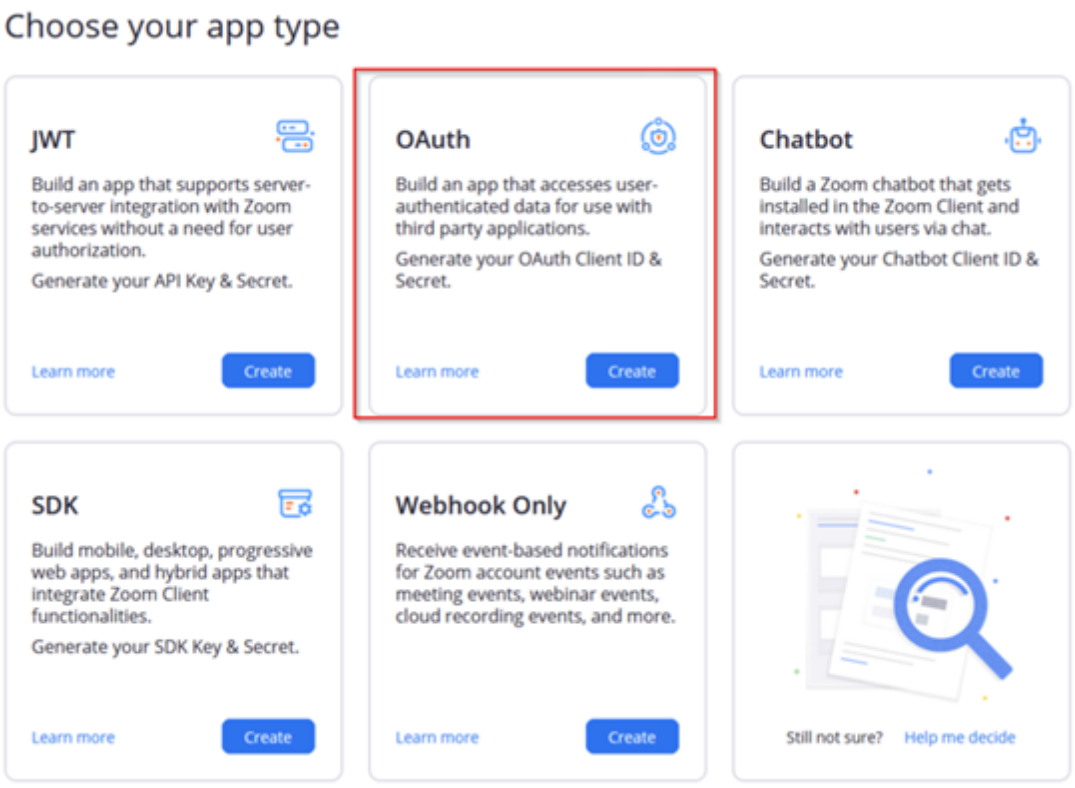
Prerequisites

For a connection with the Zoom API the following parameters are required:

- Server URL (https://api.zoom.us)
- Client ID
- Client Secret

The connection will be established using OAuth2 authentication. Execute the following steps in order to get the required parameters:

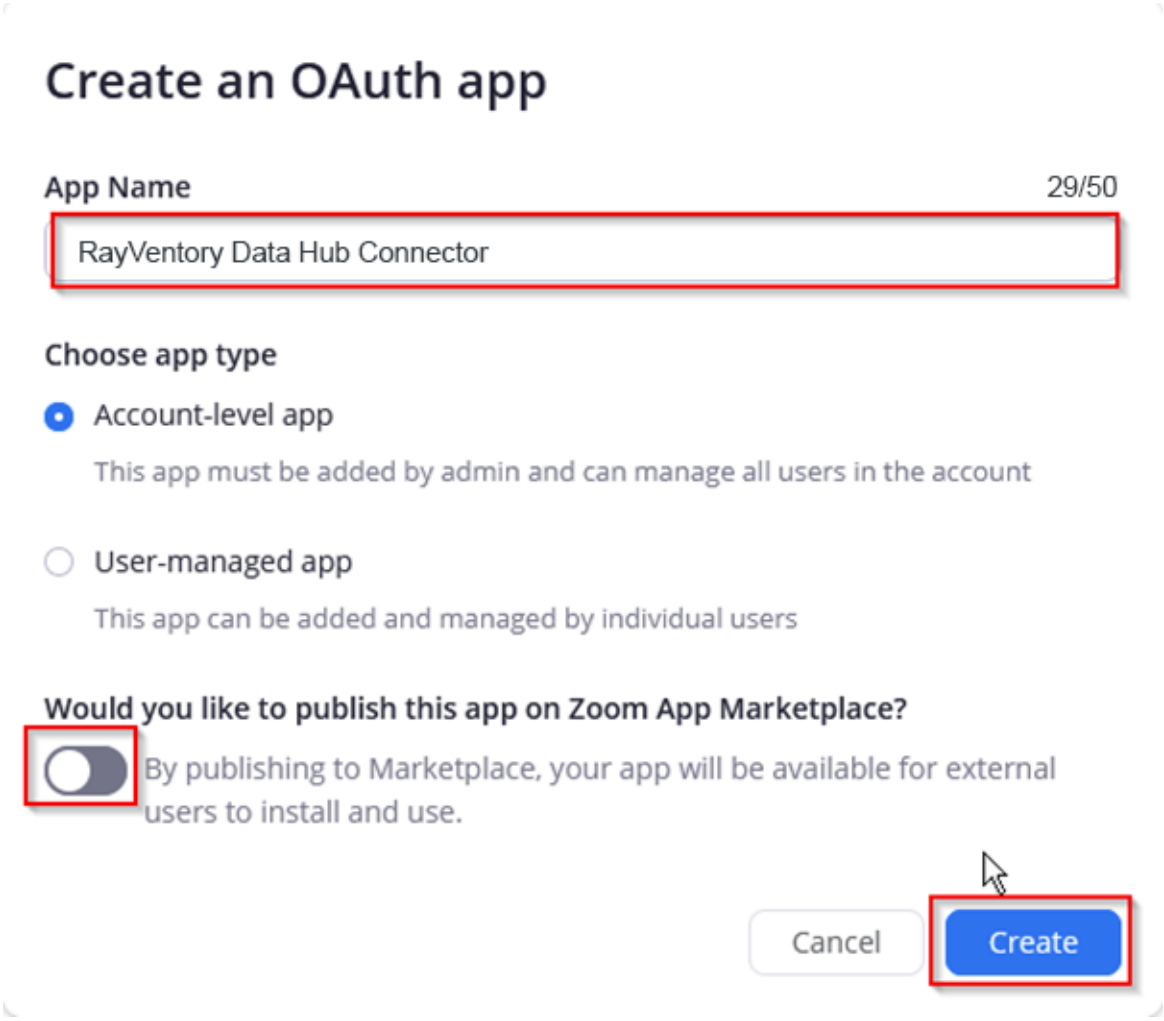
1. Sign into the Zoom account and select **Advanced** and then **App Marketplace** on the left navigation bar.
2. In **App Marketplace** click on **Manage** in the upper right corner.
3. Select the **OAuth** app type and click on **Create**.



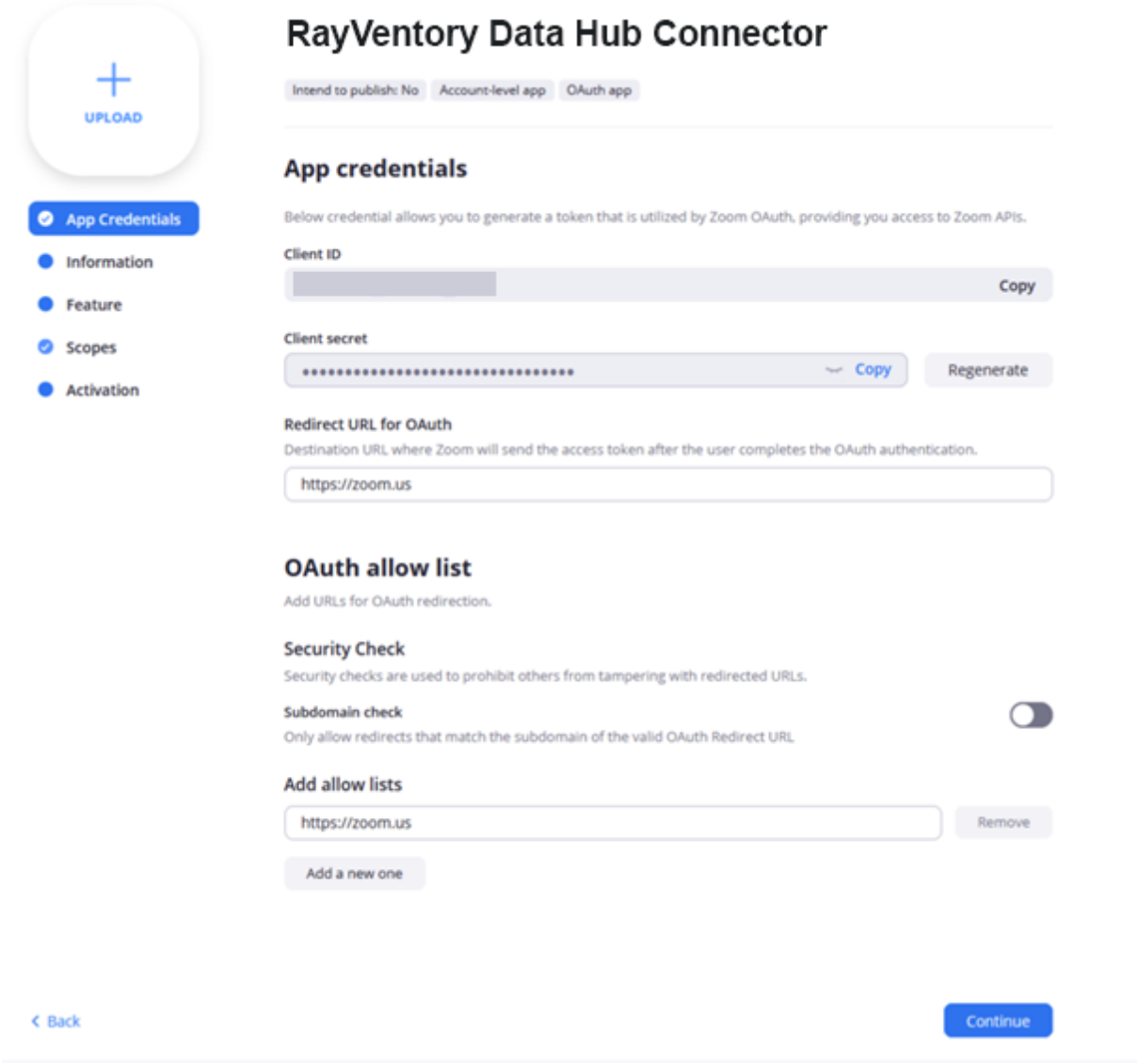
4. Enter a meaningful name for the OAuth app into the **App Name** field and click on the **Create**

button.

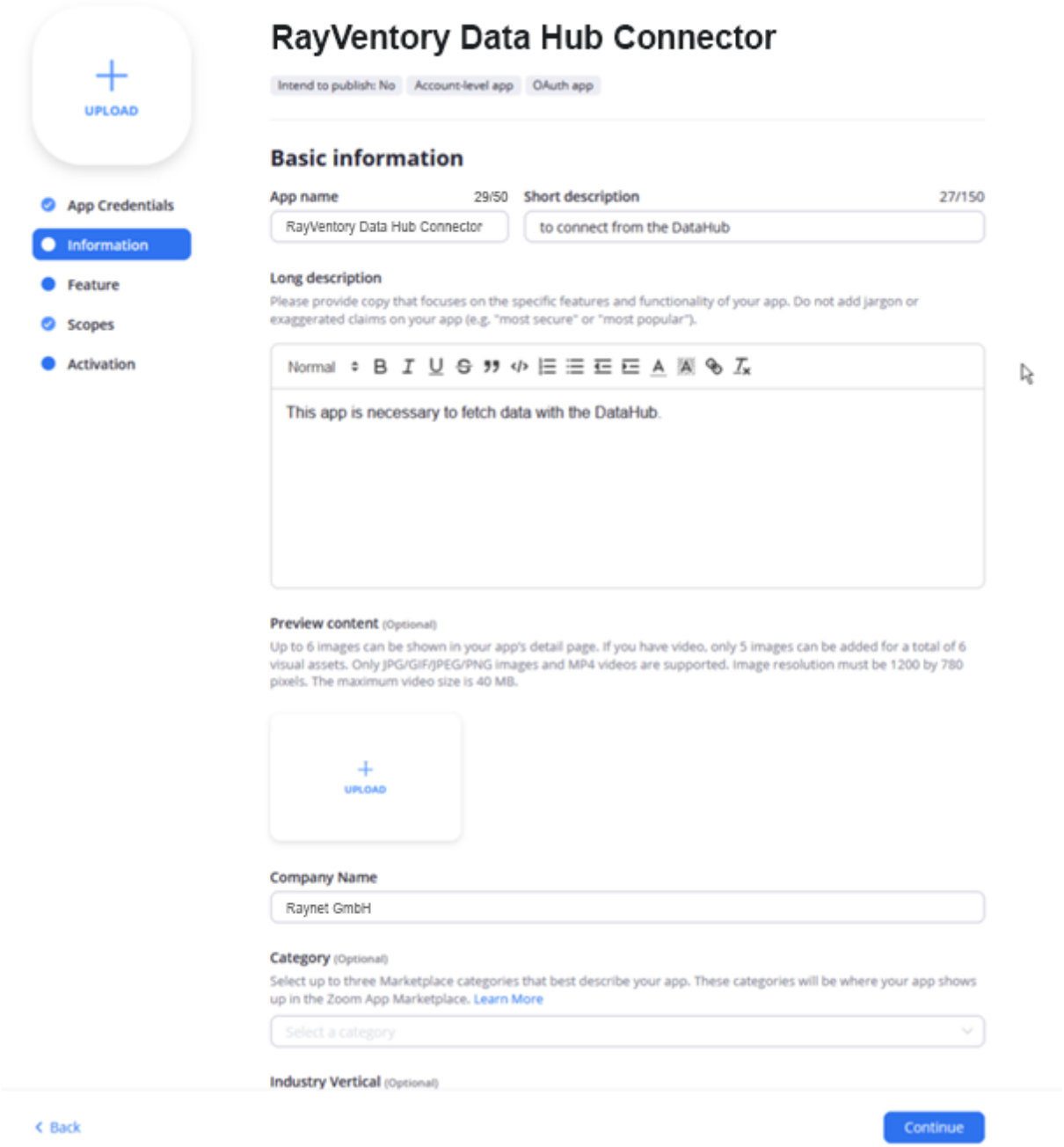
> **WARNING**
> By default, applications will be published in the Zoom App Marketplace. Ensure that this is deactivated by clicking on the slidebutton!



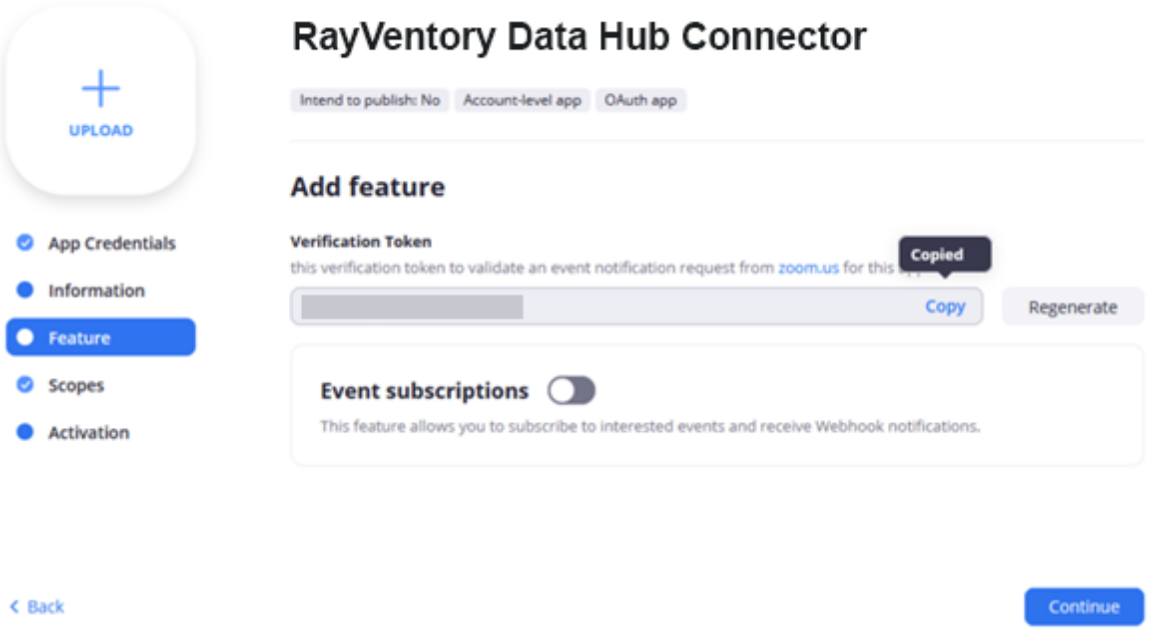
5. Enter all necessary information into the App window.
6. In the **App Credentials** tab the Client ID and the Client Secret are shown. These are necessary for the connector.



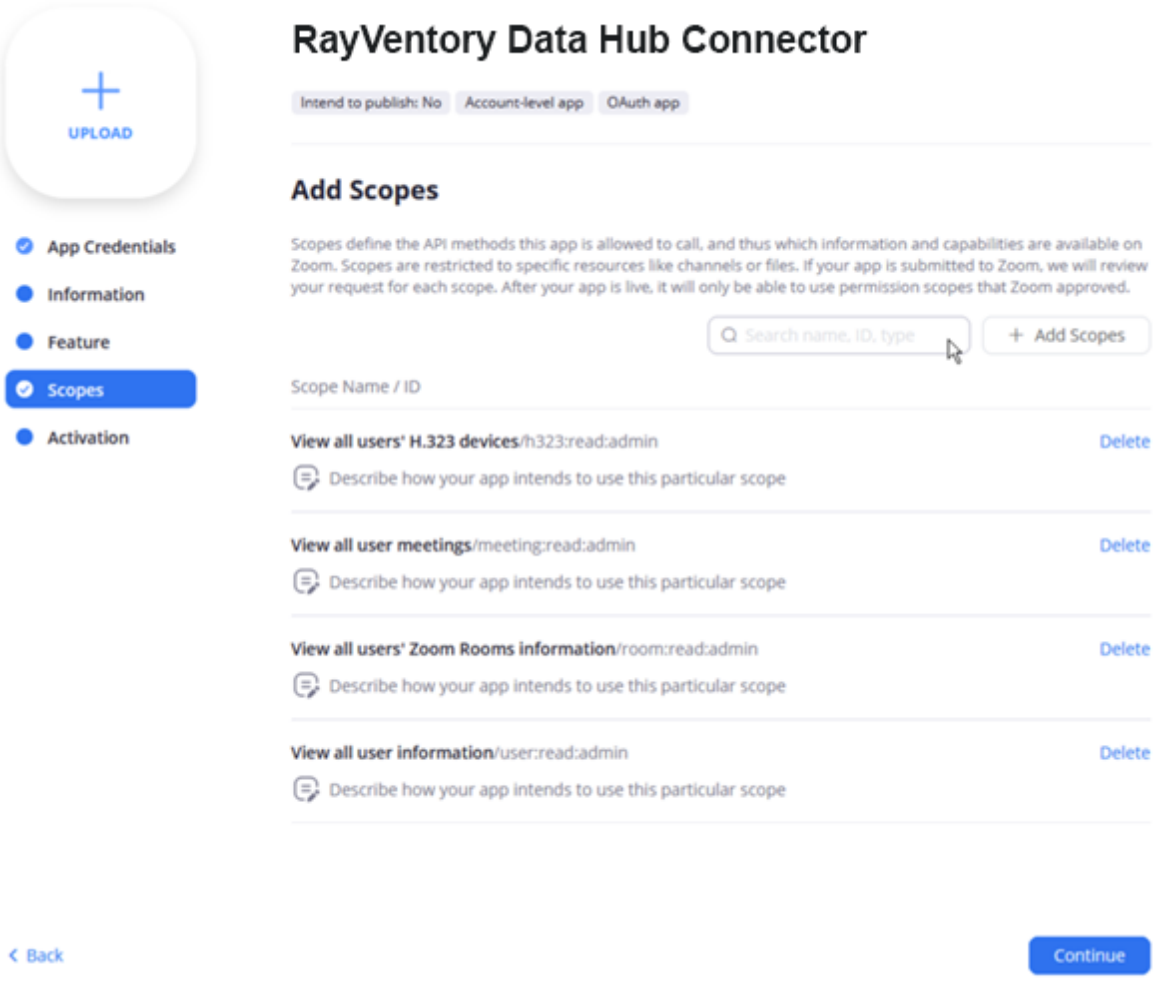
7. Enter additional information about the connector into the **Information** tab.



8. The **Verification Token** can be found in the **Feature** tab. Copy the token and save it to secure location.



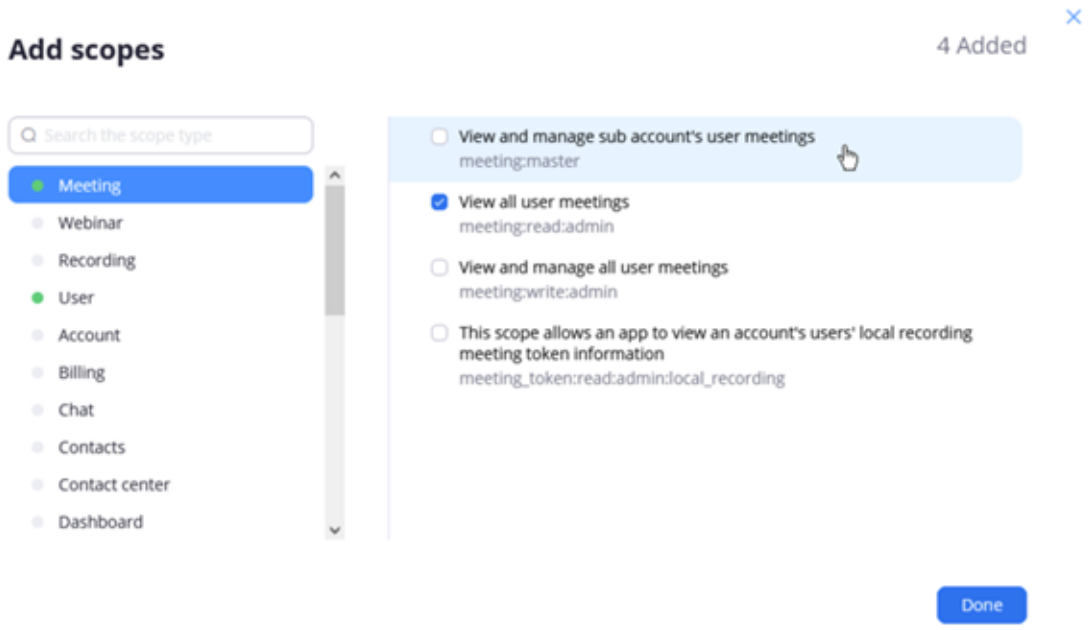
9. In the **Scopes** tab, the necessary scopes must be added to the connector. Click on the **+ Add Scopes** button to add the necessary scopes.



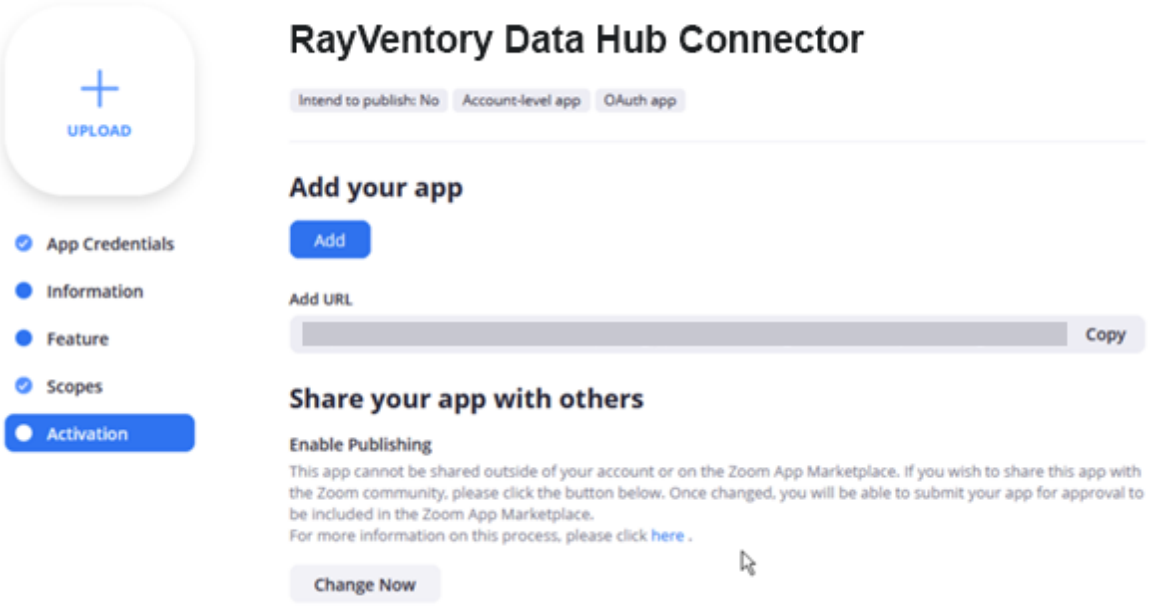
10.The following scopes are needed:

- **Meeting**: View all user meetings.
- **User**: View all user information
- **Devices (H323)**: View the H.323 devices of all users.
- **Room**: View the Zoom Rooms information of all users.

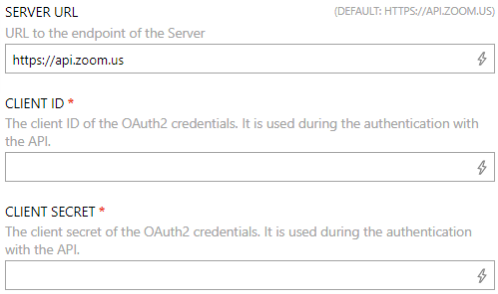
After all scopes have been added, click on the **Done** button.



11. In the **Activation** tab, click on the **Add** button to activate the tab.



Connector Setup



- Enter the Client ID of the OAuth2 credentials that are used during the authentication with the API into the **CLIENT ID** field.
- Enter the Client Secret of the OAuth2 credentials that are used during the authentication with the API into the **CLIENT SECRET** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Fetch Devices

This parameter can be used to activate or deactivate the device import. If the account has no device subscription, the data export will fail.

Technical Name	`fetch_devices`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Fetch Rooms

This parameter is used to activate or deactivate the room import. If the account has no room subscription, the data export will fail.

Technical Name	`fetch_rooms`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Fetch Meetings

This parameter is used to activate or deactivate the meetings duration export.

Technical Name	`fetch_meetings`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

Fetching meetings can take a long time, therefore it can be deactivated. If the account has no meetings, the data will return an empty list.

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`"https://api.zoom.us"`
Example Values	`"https://api.zoom.us"`

Client ID

This parameter should contain the client ID of the OAuth2 credentials. This is used when authenticating with the API.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a

Example Values	

Client Secret

This parameter should contain the client secret of the OAuth2 credentials. This is used when authenticating with the API.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Page Size

This parameter defines the page size during the API request (number of records).

Technical Name	`page_size`
Category	Technical
Type	Integer
Default Value	`300`
Example Values	`300`

It is recommended to change this value only if there are connection issues or rate limitation. Otherwise changing this parameter should not be necessary. The larger the page size, the longer a request will take. On the other hand, a high page size will decrease the total number necessary requests.

Be aware:
Most APIs will limit the maximum page size!

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`

Default Value	3600000
Example Values	3600000

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	max_attempts
Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	{+serverUrl}/v2/users
Description:	Fetch users.
Documentation:	n/a

Endpoint:	{+serverUrl}/v2/users/{userId}/settings
Description:	Fetch users settings.
Documentation:	n/a

Endpoint:	{+serverUrl}/v2/h323/devices

Description:	Fetch devices.
Documentation:	n/a

Endpoint:	`{+serverUrl}/v2/rooms/`
Description:	Fetch rooms.
Documentation:	n/a

Endpoint:	{+serverUrl}/v2/users/{userId}/meetings
Description:	Fetch user meetings.
Documentation:	n/a

Tables

Table	Column	Type
users	• createdAt • email • firstName • id • lastLoginTime • lastName • status • type	• String • String • String • String • String • String • String • String
userfeatures	• cnMeeting • inMeeting • largeMeeting • largeMeetingCapacity • meetingCapacity • userId • webinar • webinarCapacity • zoomPhone	• String • String • Boolean • String • String • String • String • String • String
devices	• id • ip • name • protocol	• String • String • String • String
rooms	• id • name • status	• String • String • String
meetings	• duration • hostId • meetingId • startTime • type • userId	• Integer • String • String • String • String • String

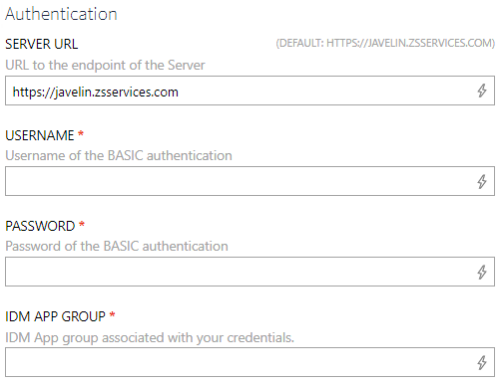
Zs Associates

This connector is used to connect to the ZS Associates Identity Manager Web Services API. It collects user account information and user application roles.

Prerequisites

In order to use the connector it is necessary to have access to a user with at least read access to the target environment. Since BASIC authentication is used, only the server URL, username, and password are necessary.

Connector Setup



- Enter the username of the user used for the BASIC authentication into the **USERNAME** field.
- Enter the password of the user used for the BASIC authentication into the **PASSWORD** field.
- Enter the IDM App Group that is associated with the credentials that are used into the **IDM APP GROUP** field.

Connector Parameters

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://javelin.zsservices.com`
Example Values	`https://javelin.zsservices.com`

Username

This parameter specifies the username that is used for the BASIC authentication.

Technical Name	`username`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Password

This parameter specifies the password that is used for the BASIC authentication

Technical Name	`password`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

IDM App Group

This parameter should contain the IDM App group that is associated with the credentials.

Technical Name	`idm_app_group`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`

Category	Technical
Type	Integer
Default Value	5
Example Values	5

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`/{idmAppGroup}/IdentityManager/app/Service/Data/v1.svc/Users`
Description:	Fetches all users in the IDM App Group.
Documentation:	n/a

Endpoint:	`/{idmAppGroup}/IdentityManager/app/Service/Data/v1.svc/UserA`
Description:	Fetches user application roles.
Documentation:	n/a

Tables

Table	Column	Type
`users`	• `emailAddress` • `inactive` • `name`	• `String` • `String` • `String`
`application_roles`	• `applicationRoleName` • `userName`	• `String` • `String`

Zylo

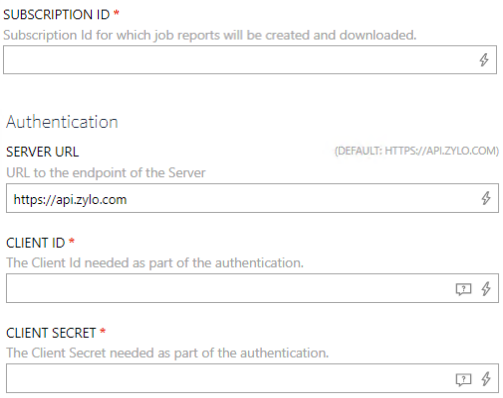
Connects to the Zylo API and exports subscriptions.

Prerequisites

To retrieve the Token ID and the Token Secret needed for the authentication with the Zylo API execute the following steps.

1. Go to the account and select **Admin** from the main menu.
2. Select the **Company Tokens** tab.
3. Select Request Token and create a named token. Assign the necessary permissions (at least read rights) that should be associated with token.
4. Store the Token ID and the Token Secret in a secure location, since the Token Secret will only be displayed when the key is generated.

Connector Setup



- In the **Configuration** tab, enter the Subscription ID for which job reports shall be created and downloaded into the **SUBSCRIPTION ID** field.
- In the **Connection** tab, enter the URL of the endpoint of the server into the **SERVER URL** field.
- Enter the Client ID needed as part of the authentication into the **CLIENT ID** field.
- Enter the Client Secret needed as part of the authentication into the **CLIENT SECRET** field.

Connector Parameter

Output Path

The directory to which the connector writes its output files.

Technical Name	`output_path`
Category	System
Type	String
Default Value	n/a
Example Values	`"/home/user/output"`

Use New Naming Strategy

Use the new file naming convention, available since 12.2.20211

Technical Name	`use_new_naming`
Category	Functional
Type	Boolean (`true` or `false`)
Default Value	`false`
Example Values	`false`

With version 12.2.20213 the new convention will be used by default. With version 12.2.20222 the option to use the old filename convention will be deleted. Make sure to update any scripts in time.

Output Identifier

A string which is added to every output filename in order to distinguish connector executions.

Technical Name	`output_identifier`
Category	Technical
Type	String `null`
Default Value	`null`
Example Values	`null, "testrun"`

Configuration

Subscription ID

This parameter contains the subscription ID that defines for which job reports will be created and downloaded.

Technical Name	`subscription_id`
Category	Functional
Type	String
Default Value	n/a

Example Values	

Authentication

Server URL

This parameter represents the endpoint of the server.

Technical Name	`server_url`
Category	Authentication
Type	String
Default Value	`https://api.zylo.com`
Example Values	`https://api.zylo.com`

Client ID

This parameter contains the client ID needed as part of the authentication.

Technical Name	`client_id`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The Client Id and Client Secret are created from the **Company Tokens** menu in the Admin panel. The authentication process is described in the official documentation.

Client Secret

This parameter contains the client secret needed as part of the authentication.

Technical Name	`client_secret`
Category	Authentication
Type	String
Default Value	n/a
Example Values	

The Client Id and Client Secret are created from the **Company Tokens** menu in the Admin panel. The authentication process is described in the official documentation.

Task Parameters

Connection Timeout (in ms)

This parameter specifies the time after which a running request will be aborted. If set to `null`, the default timeout of the system will be used.

Technical Name	`timeout`
Category	Technical
Type	Integer `null`
Default Value	`null`
Example Values	`null, 10000`

Initial Delay (in ms)

This parameter represents the initial time (in milliseconds) to wait before a failed request will be reattempted.

Technical Name	`initial_delay`
Category	Technical
Type	Integer
Default Value	`1000`
Example Values	`1000`

When a request fails, the connector does a so-called exponential backoff. The delay starts with this duration and then exponentially increases with every failed attempt.

Maximum Delay (in ms)

This parameter represents the maximum time (in milliseconds) to wait before an HTTP request that has been failed will be reattempted. If set to `null`, the delay will not be restricted.

Technical Name	`max_delay`
Category	Technical
Type	Integer `null`
Default Value	`3600000`
Example Values	`3600000`

When a request fails, the connector does a so-called exponential backoff. The delay increases with every failed attempt up to this duration. In order to limit the total runtime of the connector, on can set a maximum delay.

Maximum Number of Attempts

This parameter represents the maximum number of attempts after which an HTTP request will fail permanently.

Technical Name	`max_attempts`
Category	Technical
Type	Integer
Default Value	`5`
Example Values	`5`

Failed requests will be resend by the connector before failing the whole connector run. When experiencing a lot of connectivity issues which are not related to server overload or some kind of rate limitation, it is recommended to increase this parameter as well as the Timeout and the Maximum Delay parameter.

Extracted Data

Endpoint:	`{+serverUrl}/v1/subscriptions/{subscriptionId}/exportJobs`
Description:	Creates a new export job report and checks if the export job report has been created.
Documentation:	https://developers.zylo.com/#operation/SubscriptionController_exportJobs

Endpoint:	`{+serverUrl}/v1/subscriptions/{subscriptionId}`

	`/exportJobs/{id]`
Description:	Fetches the status of an export job running on the Zylo server.
Documentation:	https://developers.zylo.com/#operation/SubscriptionController_getExportJob

Endpoint:	`https://zylo-export-production.s3.amazonaws.com/`
Description:	Reports are probably downloaded from AWS S3.
Documentation:	n/a

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