

Establish Connectivity to Microsoft Power BI Cloud

This article describes how to connect to Microsoft Power BI in order to load data into Datasets and Reports in Metric Insights.

PREREQUISITES

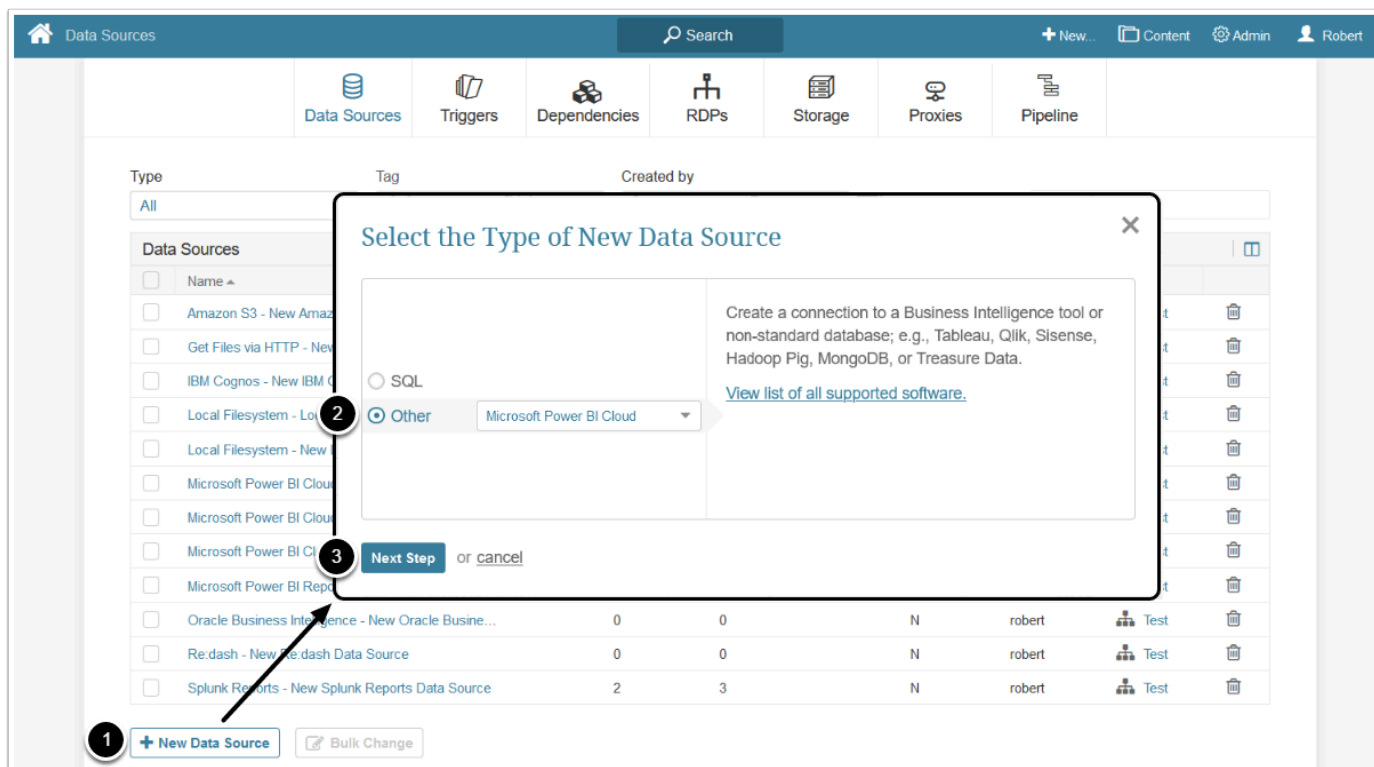
- Make sure all the [Prerequisites for connecting to Microsoft Power BI](#) have been met
- Refer to the [Power BI Plugin Capabilities](#) to understand for which type of Power BI Objects you can get data and images

The whole process comprises:

1. [Create New Data Source](#)
2. [Provide Required Parameters](#)
3. [Provide Optional Parameters](#)
 - [Object Filters Cheat Sheet](#)
4. [Advanced Configuration](#)
5. [Microsoft Power BI Cloud Elements and User Tokens](#)

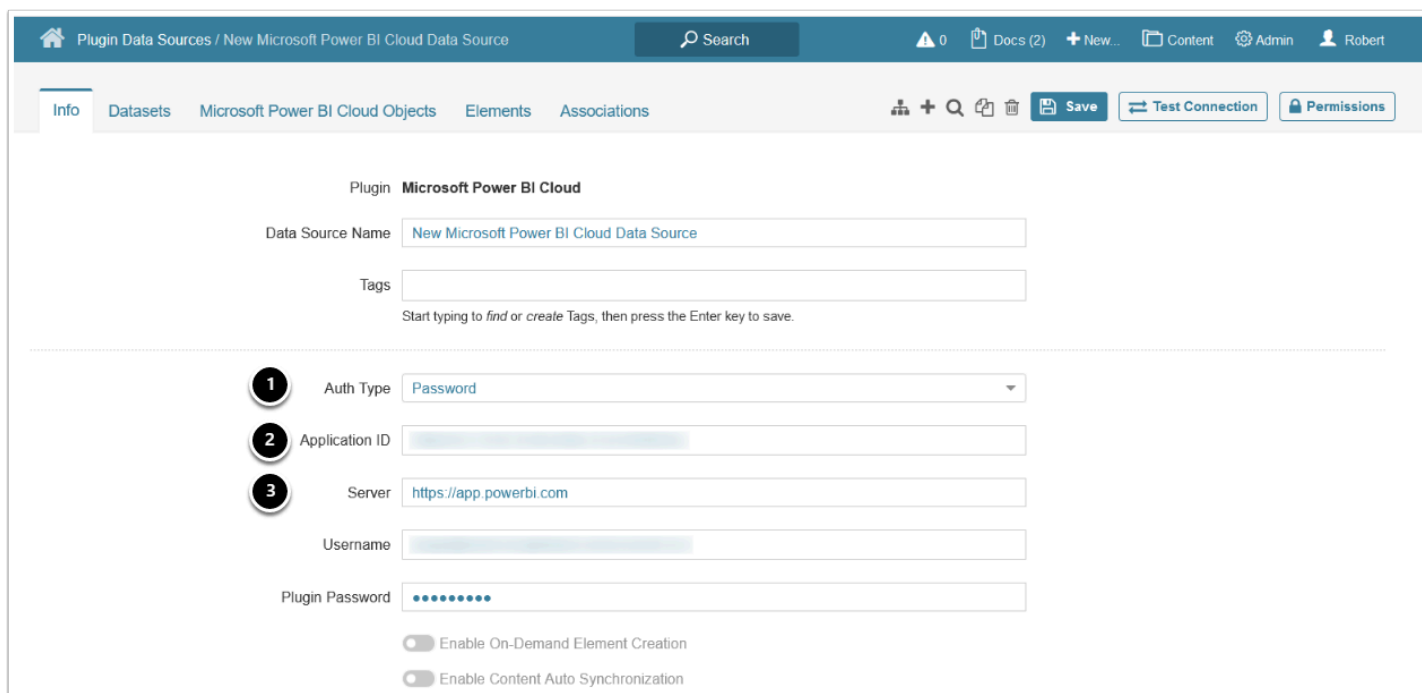
1. Create New Data Source

Access **Admin > Collection & Storage > Data Sources**



1. [+ New Data Source]
2. Choose "Microsoft Power BI Cloud" from **Other** drop-down list
3. [Next Step]

2. Provide Required Parameters



1. Select the **Auth Type**:

- **Password:** provide **Username** and **Plugin Password**, note that the username must be a cloud only Microsoft Power BI user, or if an AD user, the AD user must exist / be synced in Azure AD for Power BI authentication
 - If you choose the Password Auth Type, you will need to [enable row-level security \(RLS\)](#) in Metric Insights to be able to use RLS
 - **Identity Profile:** provide an [Identity Profile](#)
 - **OAuth:** enter **Client Secret** and click **[Get Token]** to grant permission to Office 365 API
 - You can enable **Client Secret** authorization for your Azure app. After the Client Secret has been generated, the Username/Password authorization **will no longer work**
2. Enter **Application ID** of the registered Azure app that represents Metric Insights (to connect to Power BI)
 3. **Server:** the URL of your Microsoft Power BI server (this is the same URL that you see when accessing Microsoft Power BI via your web browser)

i Enabling OAuth has the following benefits compared with the Username/Password authentication model:

- Ability to view content in iframes based on user account permissions rather than service account permissions
- Row-level security (RLS) without the need to use User Maps on MI side (you only have to enable RLS in Power BI)


See [Configure Microsoft Power BI OAuth in Azure AD](#) for details.

3. Provide Optional Parameters

Plugin Connection Profile Parameters		
Variable	Value	Description
1 App filter	*	Use * for all available apps or use a comma separated list of app name.
2 Power BI Premium: Collect native PDFs		If true, then plugin tries to get PDF documents for reports from Power BI (only work with Premium accounts). Otherwi...
3 Get token from Plugin		Get token from Plugin
4 Object types to collect	DASHBOARD, REPORT, DATASET, ...	comma separated list of object types to be returned (DASHBOARD, TILE, DATASET, TABLE, REPORT, APP, WORK...
5 OleDB Data	true	Parameter for getting data from OleDB instead of DAX API.
6 Workspace Filter	*	Use * for all available workspaces (except personal), use a comma separated list of workspace name, or leave blank t...

1. **App filter:**
 - **"*"**: the plugin will collect Power BI objects from all available Apps

- *App names (comma-separated, or wildcard patterns)*: the plugin will collect Power BI objects from the specified Apps
2. **Power BI Premium: Collect native PDFs**: set to "true" to get native PDFs from Power BI
 - Note that native PDFs can be generated only with Power BI Premium accounts, otherwise, PDFs are generated using collected images
 3. **Get token from Plugin**: specify whether the token used to display External Report images in iframes is fetched from plugin ("Y") or in the UI ("N")

 **Note:** It is recommended to set the parameter to "Y".


- If the parameter is set to "N", a new token is fetched in the UI for each embedding and image collection. The same applies for External Reports with *Drill-Down Authentication* parameter set to "Power BI OAuth" in the Report type.

4. **Object types to collect**: by default the plugin is configured to collect Dashboards, Reports, Datasets, Tiles and Tables (you may remove any object type you do not need to fetch)
 - Enter "Workspace" and "App" to be able to collect objects from Workspaces and Apps
5. **OleDB Data**:
 - "true": get data from OleDB instead of DAX API, an RDP is required
 - "false": get data using DAX API **without** using an RDP

 **Note:** If data is fetched using DAX API:

- Only data from V2 Workspaces can be fetched
- The returned Dataset data is limited by 100,000 rows

6. **Workspace Filter**:
 - **"*"**: the plugin will collect Power BI objects from all Workspaces the associated user has access to, **except for** My Workspace
 - *Workspace names (comma-separated or wildcard patterns)*: the plugin will collect Power BI objects from the specified Workspaces
7. **[Test Connection]**

 See [Object Filters Cheat Sheet](#) for details on configuring the **App filter**, **Workspace filter**, and **Object types to collect** parameters.

Object Filters Cheat Sheet

App filter	Empty	Empty	Empty	"*" or App name(s)	"*" or App name(s)	"*" or App name(s)
Workspace filter	"*" or Workspace name(s)	"*" or Workspace name(s)	Empty	"*" or Workspace name(s)	Empty	"*" or Workspace name(s)
Object types to collect	Neither "Workspace" nor "App" are listed OR "Workspace" is listed	"App" is listed	Both "Workspace" and "App" are listed	Neither "Workspace" nor "App" are listed	"App" is listed	Both "Workspace" and "App" are listed
Result	Objects from the specified Workspace(s) are collected	Object filtration error	Object filtration error	Object filtration error	Objects from the specified App(s) are collected	Objects from the specified App(s) and Workspace(s) are collected

4. Advanced Configuration

! If you have set **OleDB Data** to "true" on the [previous step](#) and want to be able to get Data from Power BI Datasets (to create Metrics, Reports, and Datasets in Metric Insights), you must utilize the Metric Insights *Remote Data Processor* to connect to Power BI directly.

- For more information on how to install and use the RDP, consult [Configuring Remote Data Processors](#)

If you are using AD, you may want to run the RDP service as an AD service account:

- Access **Services > Metric Insights Data Processor Daemon > Properties > Log On**, select AD service account

Plugin Data Sources / New Microsoft Power BI Cloud Data Source

Search

0 Docs (2) + New... Content Admin Robert

Info Datasets Microsoft Power BI Cloud Objects Elements Associations

Save Test Connection Permissions

Advanced Data Source Configuration

Use Remote Data Processor ☒ yes | ☐ no

Generate Object List ☒ automatically | ☐ manually

Object List Refresh Trigger No Trigger + ⚙ We strongly recommend avoiding Triggers that run more than once per day.

Threads to utilize during data and/or image fetch

Multiple dimension values delimiter

Use Proxy ☒ yes | ☐ no

Proxy New Proxy

Certified ☐ yes | ☒ no

Remote Processors

There are no Remote Processors

[+ New Remote Processor](#)

1. Advanced Configuration settings can be set to default values unless Data Source requires more precise tuning
 - See [Advanced Data Source Configuration](#) for more details
2. **Use Proxy:** set to "Yes" and choose a Proxy if your Data Source connection requires a proxy server
 - See [Create a Proxy](#) for more details
3. **[Test connection]** (this will also save your entries)

5. Microsoft Power BI Cloud Elements and User Tokens

The screenshot displays the 'Robert Data Source OAuth' interface. At the top, there's a navigation bar with 'Info', 'Datasets', 'Microsoft Power BI Cloud Objects', 'Elements', and 'Associations'. A search bar and user profile 'Robert' are also visible. Below the navigation, a table lists various data sources and datasets. A red circle '1' highlights the 'Datasets' tab, and a red circle '2' highlights the 'Permissions' button. Below the table, there's a 'User Tokens' section with a table showing user tokens and their expiration times. A red circle '3' highlights the 'User Tokens' section.

Source	Target	Test Embed 2
/groups/db8ab3f5-4278-4ef3-8a3c-5e2c3...	500000 Sales Records	Test Embed 2
/groups/1f8dfc6b-097e-4277-8a55-8b6de...	500000 Sales Records (Page 1)	REST_API_DAX_QUERIE...
/groups/db8ab3f5-4278-4ef3-8a3c-5e2c3...	500000 Sales Records.csv	Test Embed 2
/groups/1f8dfc6b-097e-4277-8a55-8b6de...	500000 Sales Records.csv	REST_API_DAX_QUERIE...
/groups/1f8dfc6b-097e-4277-8a55-8b6de...	500000 Sales Records.csv	REST_API_DAX_QUERIE...
/groups/db8ab3f5-4278-4ef3-8a3c-5e2c3...	500000 Sales Records.csv	Test Embed 2
/groups/1f8dfc6b-097e-4277-8a55-8b6de...	5m Sales Records	REST_API_DAX_QUERIE...
/groups/1f8dfc6b-097e-4277-8a55-8b6de...	5m Sales Records.csv	REST_API_DAX_QUERIE...
/groups/1f8dfc6b-097e-4277-8a55-8b6de...	5m Sales Records.csv	REST_API_DAX_QUERIE...
/groups/1f8dfc6b-097e-4277-8a55-8b6de...	5m Sales Report	REST_API_DAX_QUERIE...
/groups/3bebbfdf-ef57-4c07-88e5-f74889...	Account Analysis	Sales Analytics for Dynami...

User	Expires	
Robert Isaenko	2022-05-19 13:13:52	
John	2022-05-19 13:21:36	

1. You can create Datasets and view all the elements or Datasets using this Data Source from the respective tabs
2. Click **Permissions** to assign Data Source access to Groups or Power Users
3. **User Tokens** are displayed in the corresponding menu and can be deleted by clicking the trashcan icon. The lifetime of each token is 45 minutes

What's Next?

[Create a Dataset from Microsoft Power BI Cloud](#)