

Power BI: BigQuery Connector

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Power BI Desktop

Download Power BI Desktop (64bit)

There are 3 ways to download Power BI Desktop:

- [Microsoft Site](#) : Needs Manual update for latest version
- Software Center (available in your system)
- Microsoft Store (available in your system) : Auto-Update



A screenshot of the Microsoft Store page for 'Power BI Desktop' by Microsoft Corporation. The page features a large yellow bar chart icon. A prominent blue 'Install' button is at the top. Below it, the product name 'Power BI Desktop' and the developer 'Microsoft Corporation' are displayed. To the right, there are sections for '4.8 ★ Average' and '3K Ratings'. The overall layout is clean and modern.

Proxy Settings

New Environment Variables

- Open “Edit the system environment variables” from Windows Start.
- In “Advanced”, open “Environment Variables”.
- Add both proxy variables(mentioned below) in user variables and click Apply/OK.

Name: https_proxy

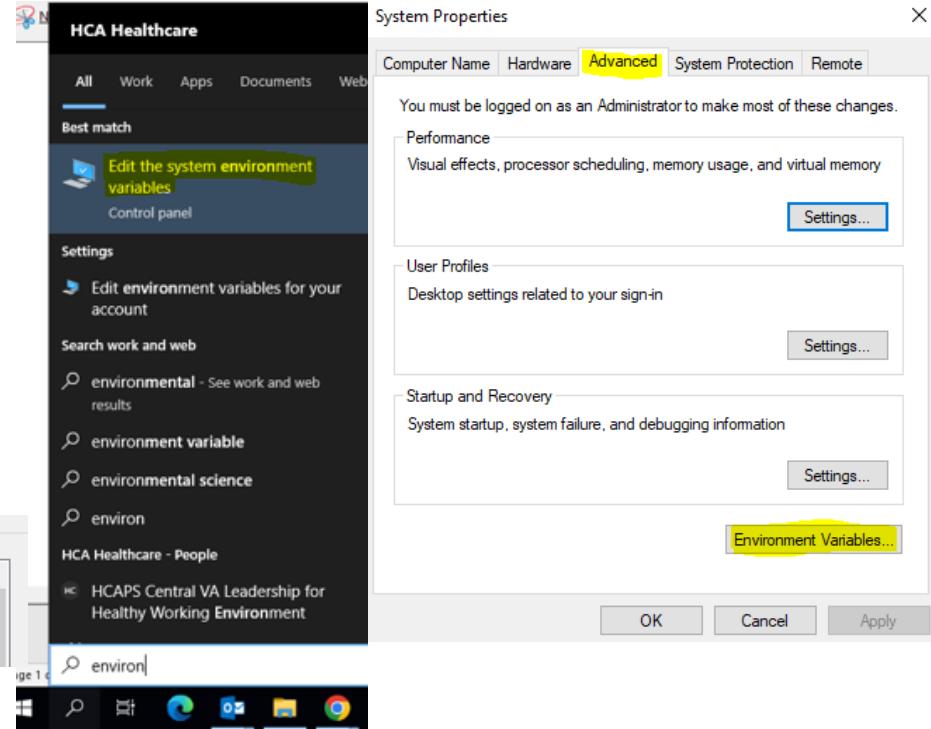
Value: <http://proxy.nas.medcity.net:80>

Name: http_proxy

Value: <http://proxy.nas.medcity.net:80>

User variables for DSO4562

Variable	Value
http_proxy	http://proxy.nas.medcity.net:80
https_proxy	http://proxy.nas.medcity.net:80



JSON Key File Formatting

Format Service Account JSON Key File Content

- Open the JSON key file that was issued with the service account email and private key for connecting to BigQuery.
- Format the file content so that there are no spaces or returns between lines. Everything should be formatted to show on a single line. See screenshot below of before and after formatting.

Before:

```
1  {  
2   "type": "service_account",  
3   "project_id": "...",  
4   "private_key_id": "...",  
5   "private_key": "-----BEGIN PRIVATE KEY-----\n",  
6   "client_email": "...",  
7   "client_id": "...",  
8   "auth_uri": "...",  
9   "token_uri": "...",  
10  "auth_provider_x509_cert_url": "...",  
11  "client_x509_cert_url": "..."  
12 }  
13 
```

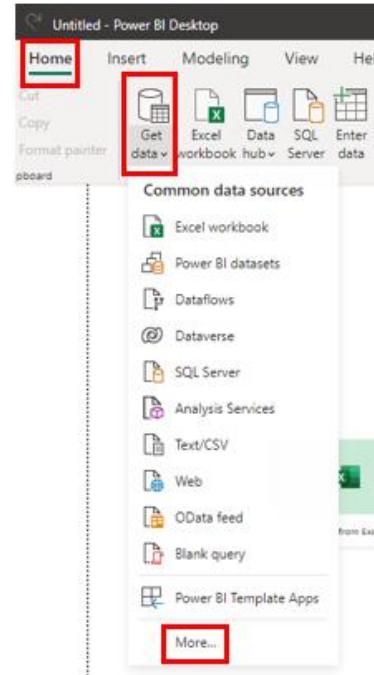
After:

```
1  {"type": "service_account", "project_id": "...", "private_key_id": "...", "private_key": "-----BEGIN PRIVATE KEY-----\n", "client_email": "...", "client_id": "...", "auth_uri": "...", "token_uri": "...", "auth_provider_x509_cert_url": "...", "client_x509_cert_url": "..."}  
2 
```

BigQuery Connection

How to connect BigQuery in Power BI

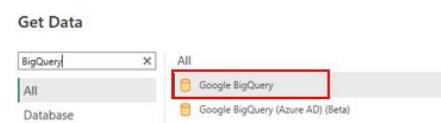
- Open new Power BI Desktop.
- Go to “Home” tab and select “Get Data” and Click “More...”.



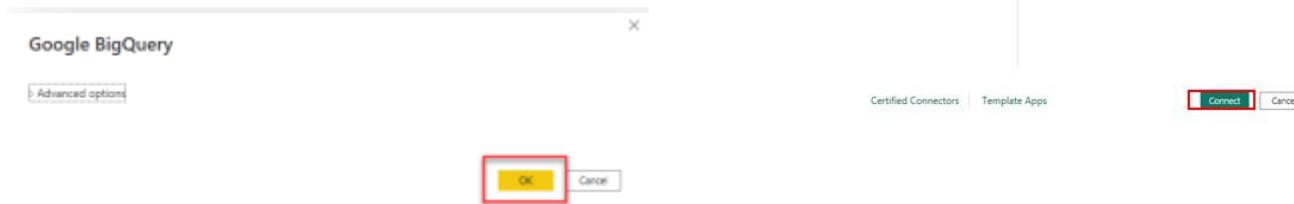
Continued...

How to connect BigQuery in Power BI

- Select “Google BigQuery” and “ Connect”.



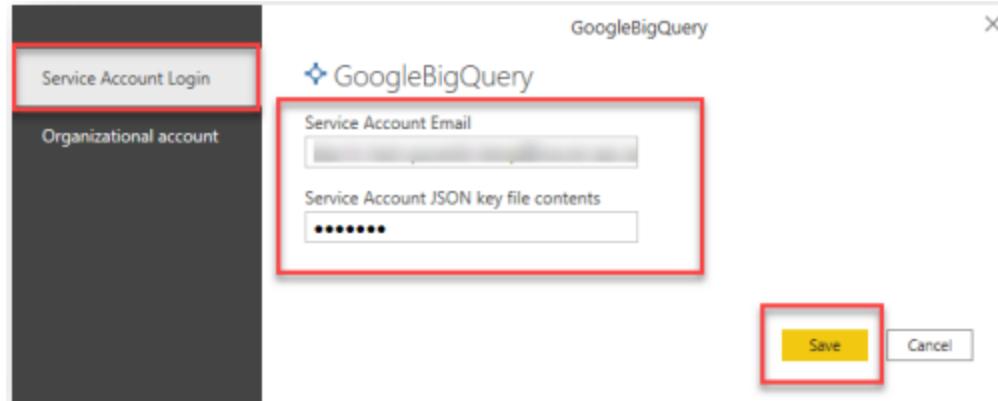
- Click Ok to skip the Advanced Options.



Continued...

How to connect BigQuery in Power BI

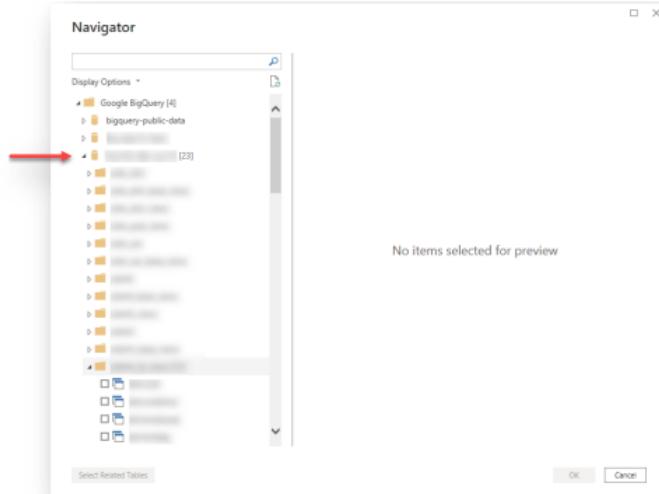
- Choose Service Account Login when prompted for credentials and then enter the Service Account Email from the JSON key file. Copy and paste the entire contents of the JSON key file into the Service Account JSON key file contents box. Click Save.
*Note that this should be formatted to one line of content per the instructions at the beginning of this document.



Continued...

How to connect BigQuery in Power BI

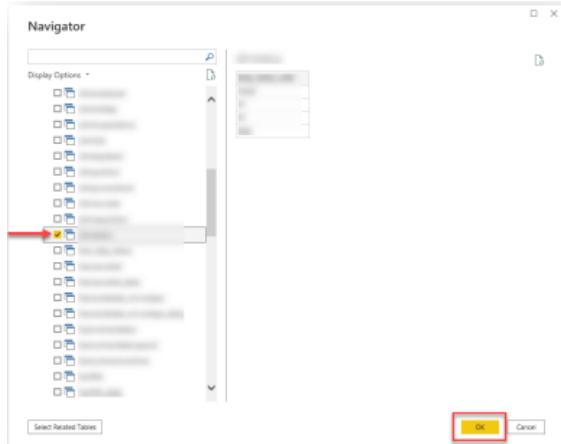
- Choose the project you are working with from the list of available projects and click the arrow beside it to expand and see the contents.



Continued...

How to connect BigQuery in Power BI

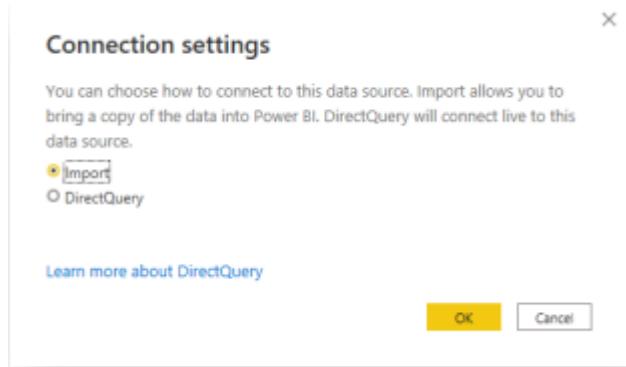
- Now, choose the dataset and click the checkbox next to the appropriate table/view. Wait for the preview to load to ensure that the connection will load. Click OK to load the data.



Continued...

How to connect BigQuery in Power BI

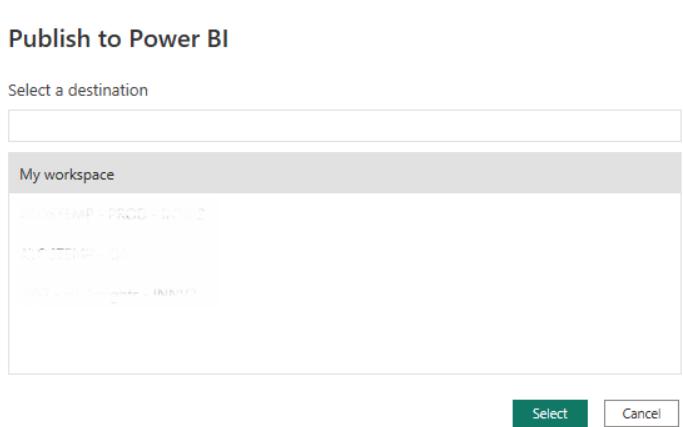
- Choose Import and click OK to proceed and Click Load/Transform data for further steps.
*This selection depends on the needs for the data model. Please find the difference [here](#).
- Follow same process to import all the tables required for your data model.



Publish Power BI-BigQuery Dataset/Report

How to publish report in Power BI Services(Cloud)

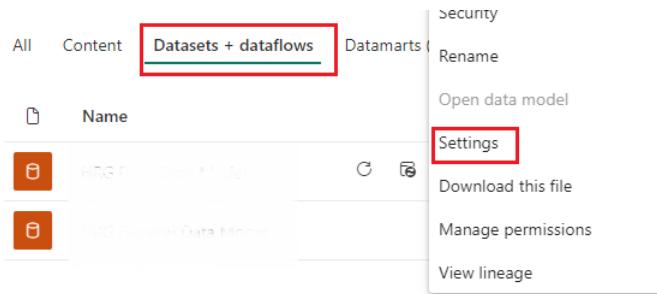
- Once data model and report is created, publish your report in Power BI Services(Cloud).
*Sign-in window will be prompted if you are not already logged in on Power BI Desktop.
- Select Workspace where you want to publish your report.



BigQuery Dataset Configuration in Power BI Services

How to configure BigQuery dataset in Power BI Services(Cloud)

- Once report is published, Go to [Power BI Services](#) and open workspace where you have published your report and go to your dataset of the published report, select ellipses(...) and click on settings.



- Select “Dataset” from settings if not selected.



Continued...

How to configure BigQuery dataset in Power BI Services(Cloud)

- There are two ways to configure BigQuery Dataset in Power BI Services:

1. Data source Credentials: Pass Service Account Email from the JSON key file. Copy and paste the entire contents of the JSON key file into the Service Account JSON key file contents box. Click Sign in.
*Note that this should be formatted to one line of content per the instructions at the beginning of this document.

« Data source credentials
GoogleBigQuery [Edit credentials](#) [Show in lineage view](#)

The screenshot shows the 'Edit credentials' dialog for a GoogleBigQuery data source. It includes fields for extensionDataSourceKind (set to GoogleBigQuery), extensionDataSourcePath (set to GoogleBigQuery), and Authentication method (set to Basic). The User name and Password fields are highlighted with a red border. Below the authentication section, there is a Privacy level setting for this data source, set to Organizational. At the bottom right, there are 'Sign in' and 'Cancel' buttons, with the 'Sign in' button also highlighted with a red border.

Continued...

How to configure BigQuery dataset in Power BI Services(Cloud)

2. Gateway connections: Create a Data source in provided Power BI Gateway(Organizational) by passing Service Account Details.

New data source X

On-premises Virtual network Cloud

Gateway cluster name *

Data source name * Google BigQuery

Data source type * Google BigQuery

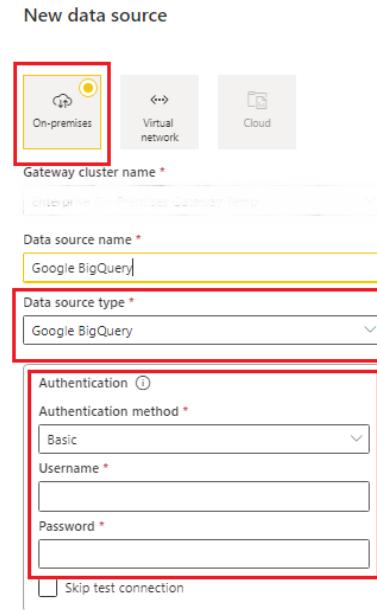
Authentication ⓘ

Authentication method * Basic

Username *

Password *

Skip test connection



Continued...

How to configure BigQuery dataset in Power BI Services(Cloud)

- There are two ways to configure BigQuery Dataset in Power BI Services:
2. Gateway connections: Map your new data source in the dataset Gateway connection and click “Apply”.

↳ Gateway connections

You don't need a gateway for this dataset, because all of its data sources are in the cloud; but you can use a gateway for enhanced control over how you connect. [Learn more](#)

Use an On-premises or VNet data gateway

On

Gateway	Department	Contact information	Status	Actions
<input type="radio"/>	corp-finance-gateway	corp-finadmin1Q123	Active	 
<input checked="" type="radio"/>	corp-fin-admin-on-prem	corp-finadmin1Q123	Active	 

Data sources included in this dataset:

<input checked="" type="radio"/> Extension("extensionDataSourceKind":"GoogleBigQuery","extensionDataSourcePath":"GoogleBigQuery")	Maps to:
<input type="radio"/> corp-fin-admin-on-prem	

Power BI Cloud White-Listing

Power BI Cloud White-Listing in the VPC-SC perimeter

- You might observe VPC Service Control issue(as available in the shared screenshot) while refreshing your dataset.
- This means we need to white-list Power BI cloud in the VPC-SC perimeter from BigQuery.
- To resolve this issue, please connect with your respective Cloud Infrastructure/Networking team.

Something went wrong

There was an error when processing the data in the dataset.

Please try again later or contact support. If you contact support, please provide these details.

Hide details ^

Data source error DataSource.Error: <ccon>ODBC: ERROR [42000] [Microsoft][BigQuery] (100) Error interacting with REST API: VPC Service Controls: Request is prohibited by organization's policy.
vpcServiceControlsUniqueIdentifier: AQ3E3DyQVyxU7pjigh3ZDbv8xbHfplW2cFbItSYCoxj9-zPOKzBNg..
DataSourceKind = GoogleBigQuery. DataSourcePath = GoogleBigQuery. OdbcErrors = #table(["SQLState", "NativeError", "Message"], []). </ccon>. The exception was raised by the IDbCommand interface. Table: dimHoliday.
Cluster URI WABI-US-NORTH-CENTRAL-C-PRIMARY-redirect.analysis.windows.net
Activity ID a32ae921-904d-40e1-b62e-f67e26b7059f
Request ID 9c5f17ff-8d74-d9a1-4e3b-6611cce817e
Time 2023-03-16 17:43:58Z

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THANK YOU