

Connecting Power BI to Azure Synapse (DW) - Provisioned

Overview

In this section we will connect Power BI desktop to Azure Synapse (DW) provisioned warehouse and quickly build a model and start visualizing data.

Pre-requisites

1. Go to Powerbi.com -> Products -> Power BI desktop (<https://powerbi.microsoft.com/en-us/desktop/>) and click on the download link. If you are on a Windows server VM click on the "See download and language options" and download the x64 version of Power BI desktop.

Choose the download you want

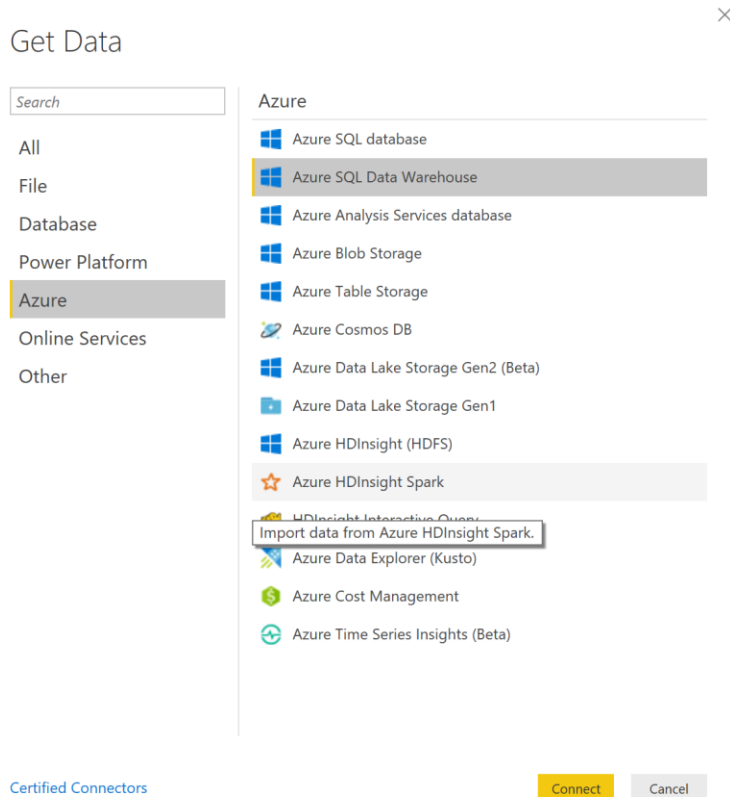
<input type="checkbox"/> File Name	Size
<input checked="" type="checkbox"/> PBIDesktopSetup_x64.exe	263.9 MB
<input type="checkbox"/> PBIDesktopSetup.exe	245.0 MB

- 2.
3. Install Power BI desktop with the default settings on your VM.

Connecting Power BI to Azure Synapse (DW)

1. Launch Power BI desktop app on the VM desktop. It might ask you to sign-in to power bi. You can use your Azure credentials from the on-demand lab or your corporate credentials to sign-in to power bi.

2. Click the “Get data” more option and select Azure -> Azure SQL Data Warehouse.



3. For connector login information enter the Azure Synapse (SQL DW) server name, AdventureWorksDW as the database, select DirectQuery data connectivity mode, and use the admin user (sqladmin) sql credentials:

Database (optional)

AdventureWorksDW

Data Connectivity mode ⓘ

☐ Import

☒ DirectQuery

> Advanced options

Windows

Database

Microsoft account

SQL Server database

labsql130293.database.windows.net;Adventureworks

User name

sqladmin

Password

.....

Select which level to apply these settings to

labsql130293.database.windows.net

4. Select the following tables and load it into Power BI:

AdventureWorks01 [34]

☒ AggregateSales

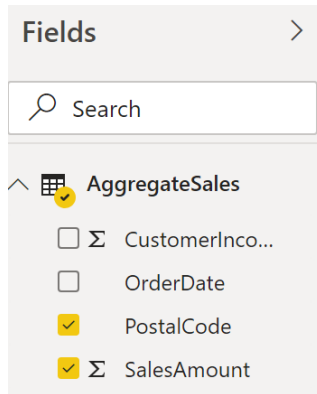
☐ SalesByCategory

☐ SalesByCustomer

☐ SalesByDate

You are now ready to use Power BI to analyze your AdventureWorksDW sample data. To perform the analysis, AdventureWorksDW has a view called AggregateSales. This view contains a few of the key metrics for analyzing the sales of the company.

5. To create a map of sales amount according to postal code, in the right-hand fields pane, click the AggregateSales view to expand it. Click the PostalCode and SalesAmount columns to select them.



Power BI automatically recognized geographic data and put it in a map for you.



6. This step creates a bar graph that shows amount of sales per customer income. To create the bar graph, go to the expanded AggregateSales view. Click the SalesAmount field. Drag the Customer Income field to the left and drop it into Axis.

What kind of chart did it create for you?

7. This step creates a line chart that shows sales amount per order date. To create the line chart, go to the expanded AggregateSales view. Click SalesAmount and OrderDate. In the Visualizations column, click the Line Chart icon, which is the first icon in the second line under visualizations.

You now have a report that shows three different visualizations of the data.

You can save your progress at any time by clicking **File** and selecting **Save**.

8. Try this yourself. Go to app.powerbi.com and login using the same credentials you used to sign into power bi desktop. Create a workspace and call it SampleWorkspace. Then from Power BI desktop publish the file to the SampleWorkspace.

Using Direct Connect

As with Azure SQL Database, SQL Data Warehouse Direct Connect allows logical pushdown alongside the analytical capabilities of Power BI. With Direct Connect, queries are sent back to your Azure SQL Data Warehouse in real-time as you explore the data. This feature, combined with the scale of SQL Data Warehouse, enables you to create dynamic reports in minutes against terabytes of data. In addition, the introduction of the Open in Power BI button allows users to directly connect Power BI to their SQL Data Warehouse without collecting information from other parts of Azure.