SSAS Connector for Qlik Sense User Guide

Content

This document describes how to use the SSAS Connector for Qlik Sense.
Please contact support at qlik.suport@stretch.dk for help.

Creating Connections

Creating a new connection

The SSAS connector for Qlik Sense support multiple cube sources:

- Server - Local or VM
  - Multi dimensional Cube
  - Tabular Cube
- Cloud Azure
  - Analysis Services
  - PowerBi Premium on Azure

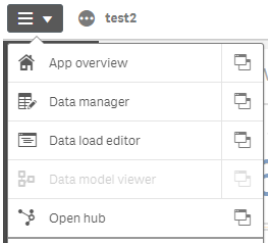
This document shows the configuration of connection to most of the sources

This document assumes the users are familiar with basic Qlik tasks e.g. creating connections. If help is need with these tasks, please contact us for assistance.

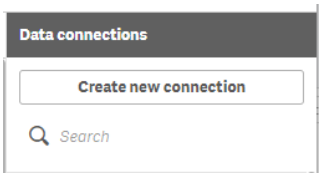
Support: qlik.support@stretch.dk

New connection – create

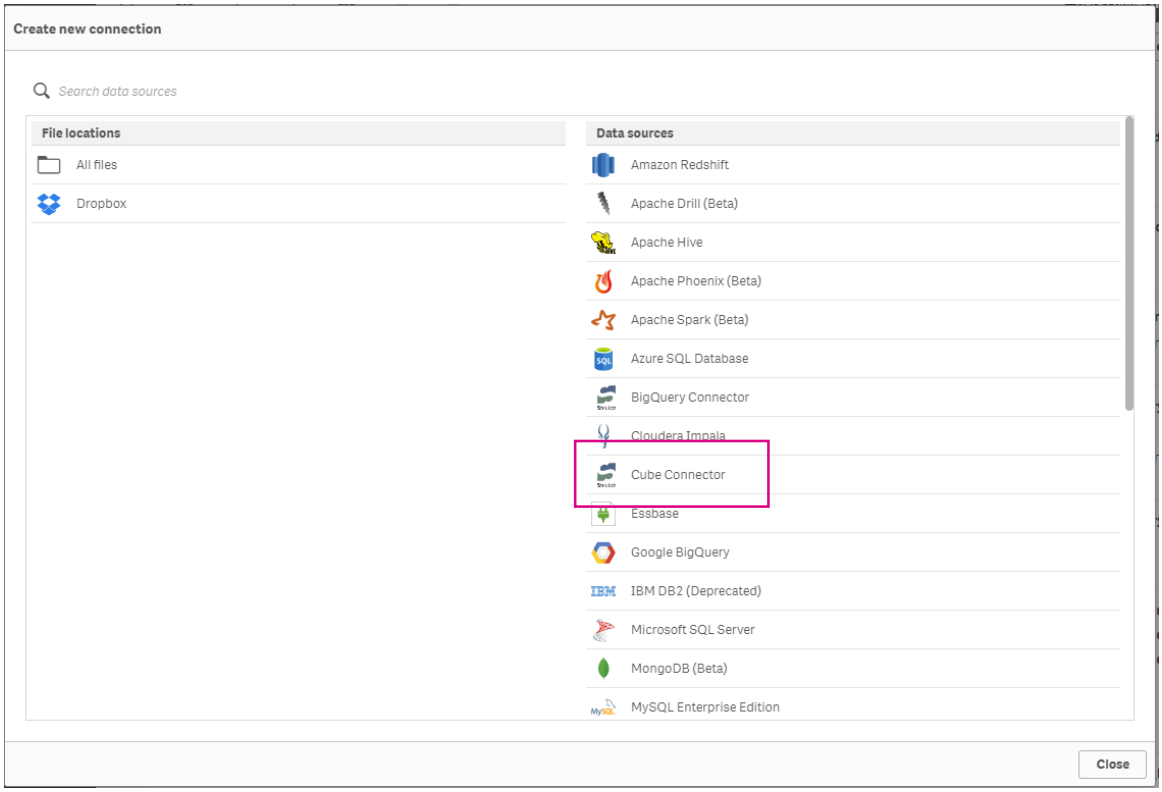
1. Go to the ”data load editor” in the upper left corner:



2. Click the button ”create new connection” in the upper left corner:



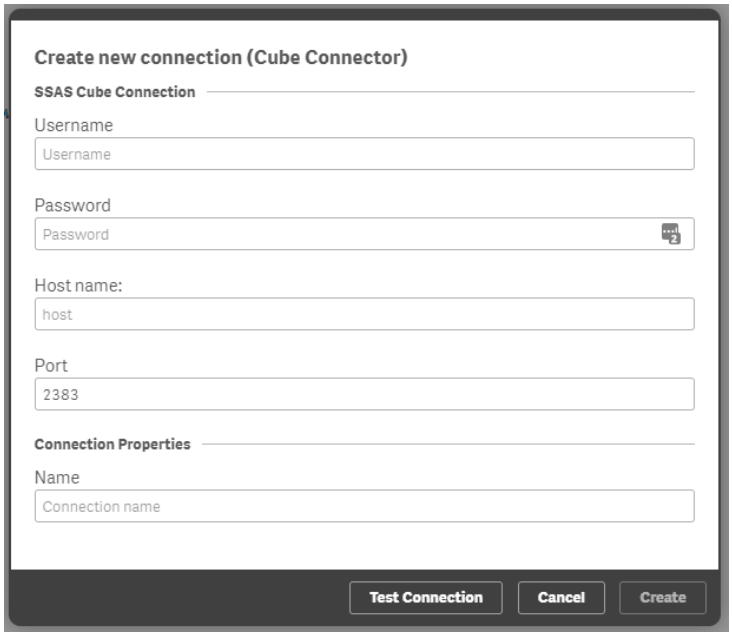
3. Select the Cube Connector form the list



MultiDim & Tabular – Server

For a connection in Multi dimensional & Tabular on local or VM server the following information is required.

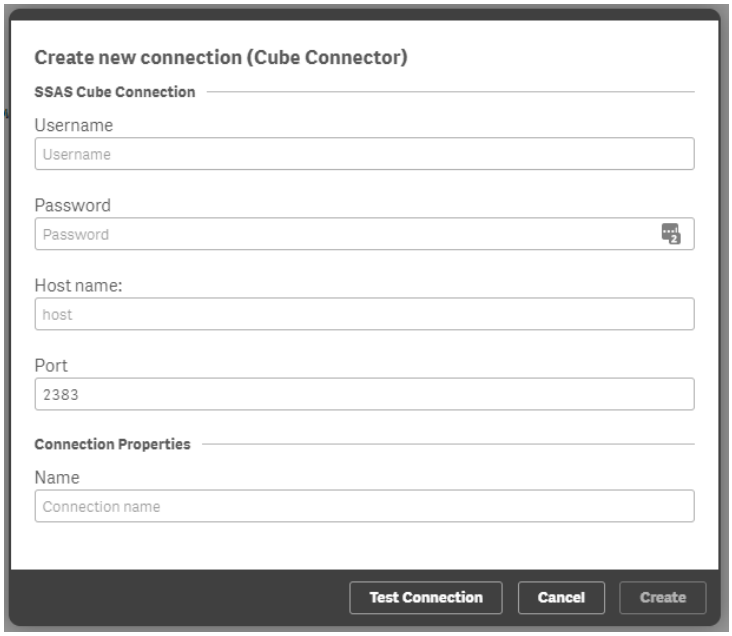
1. A username for the account to be used.
    1. An example: ”domain\qlikServiceUser”.
    2. No spaces is allowed in the name
    3. Domain are added by backslash Infront of the username
2. A password for the account.
    1. Note that two factor is not supported at the current time. Contact us for options.
3. The address of the server.
    1. An example: “cubeserver.domain.local” or a direct ip “10.2.23.120”.
    2. Instances can be defined by adding “\instance01” at the end of the address.
4. The port of the cube service on the server
    1. Default is 2383
5. The connection name is the name visible in Qlik



Analysis Services – Azure

For a connection to Analysis Services on Azure following information is required.

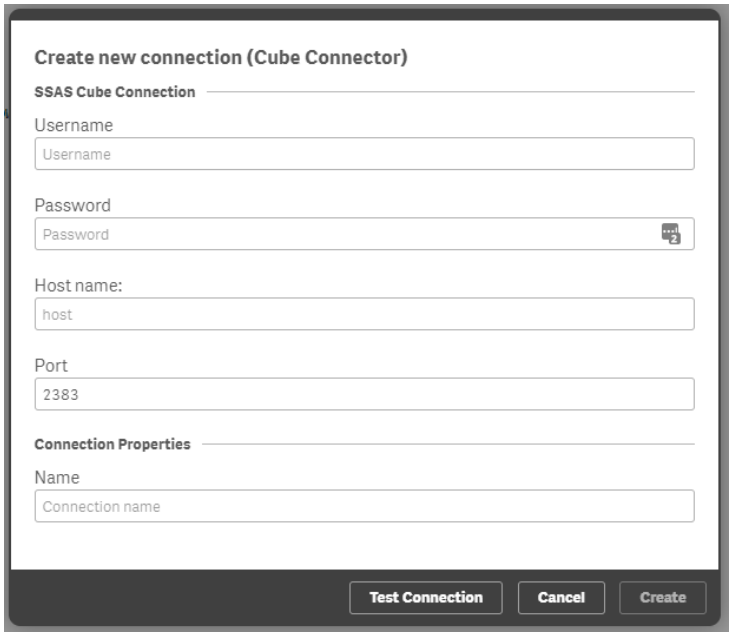
1. A username for the account to be used.
    1. An example: ”domain\qlikServiceUser”.
    2. No spaces is allowed in the name
    3. Domain are added by backslash infront of the username
2. A password for the account.
    1. Note that two factor is not supported at the current time. Contact us for options.
3. The address of the server.
    1. An example: “asazure://westeurope.asazure.windows.net/ssasInstanceName”
    2. The “asazure://” prefix is required
4. The port of the cube service on the server
    1. Default is 2383
5. The connection name is the name visible in Qlik



PowerBI Preium– Azure

For a connection to Analysis Services on Azure following information is required.

1. A username for the account to be used.
    1. An example: ”domain\qlikServiceUser”.
    2. No spaces is allowed in the name
    3. Domain are added by backslash infront of the username
2. A password for the account.
    1. Note that two factor is not supported at the current time. Contact us for options.
3. The address of the server.
    1. An example: “powerbi://api.powerbi.com/v1.0/myorg/dataSetName”
    2. The standard url are the same for all, just change dataset name.
    3. If other organization then you default, myorg can be changed. Consult Microsofts documentation
4. The port of the cube service on the server
    1. Default is 2383
5. The connection name is the name visible in Qlik



Configuring Cube Access

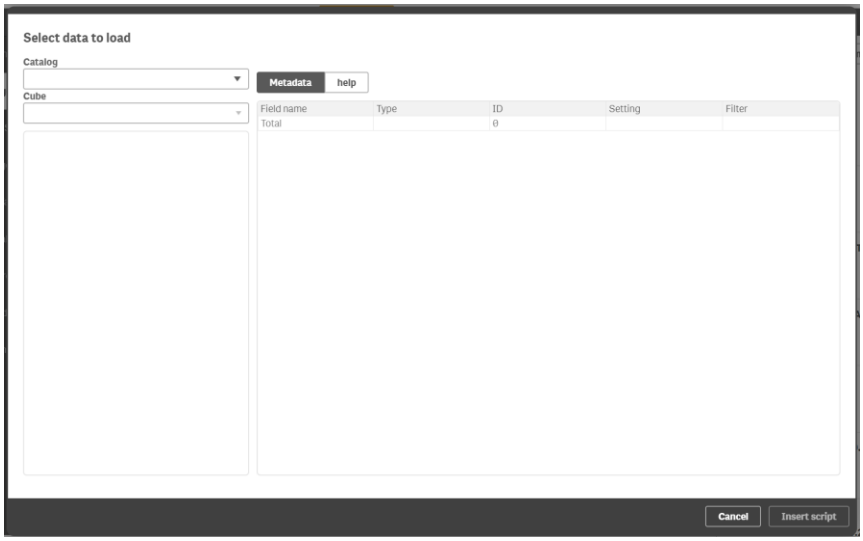
1. Ensuse the user(s) have a minimum of Read permission to the cube
2. Ensure the user(s) can query the following systems tables:
   - "$system.MDSchema_Cubes"
   - "$system.DBSchema_catalogs"
   - "$system.MDSchema_Dimensions"
   - "$systme.MDSchema_Measures"
   - "$system.MDSchema_hierarchies"
   - "$system.MDSchema _Levels"
   - "$system.MDSchema _KPIs"
   - "$system.MDSchema _Members”
3. Ensure the network, firewalls and routing is configured such that the Qlik Server (not the client) can communicate with the cube-server.

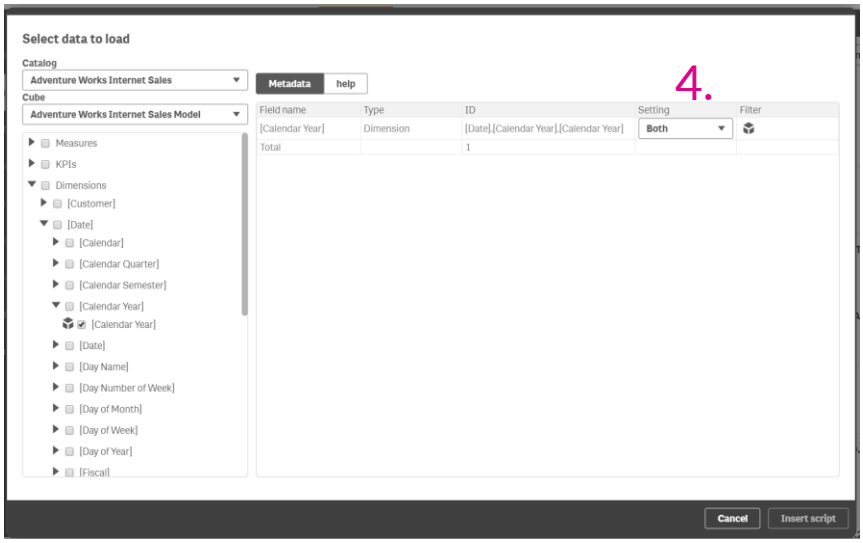
Loading data

Loading data – User interface

The connector has a graphical user interface (GUI) to assist in selection and creating queries for data from SSAS.

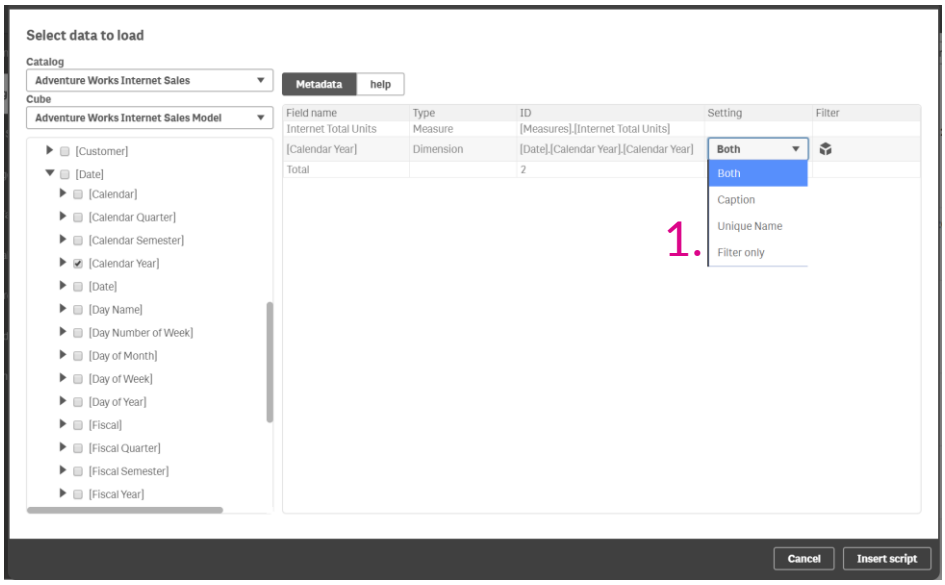
1. Select the catalog from the list of available catalogs
   - Attention: If a changing catalog while a selections are made an invalid query might be produced
2. Select the cube from the list of cubes in the catalog
   - Attention: If a changing catalog while a selections are made an invalid query might be produced
3. Select the dimension and measures with the desired data
   - Use the arrow to expand and contract the tree structure of the cube
   - Using the checkmark to the left of the name will select the measure or dimension
   - It is possible to select multiple child dimension by the checkmark of the parent
4. Select the desired setting for the field
   - Setting are available for dimensions, for more details consult the next page
5. Repeat step 3 & 4 to select data from multiple dimension
   - Note: Creating large queries can in some instances be challenging for the Cube server/service to handle and can cause timeouts and errors on the cube side. Please referrer to the Note and Tips & Trick to for strategies to mitigate this if experienced.
6. Click insert script when all desired dimensions and measures have been selected

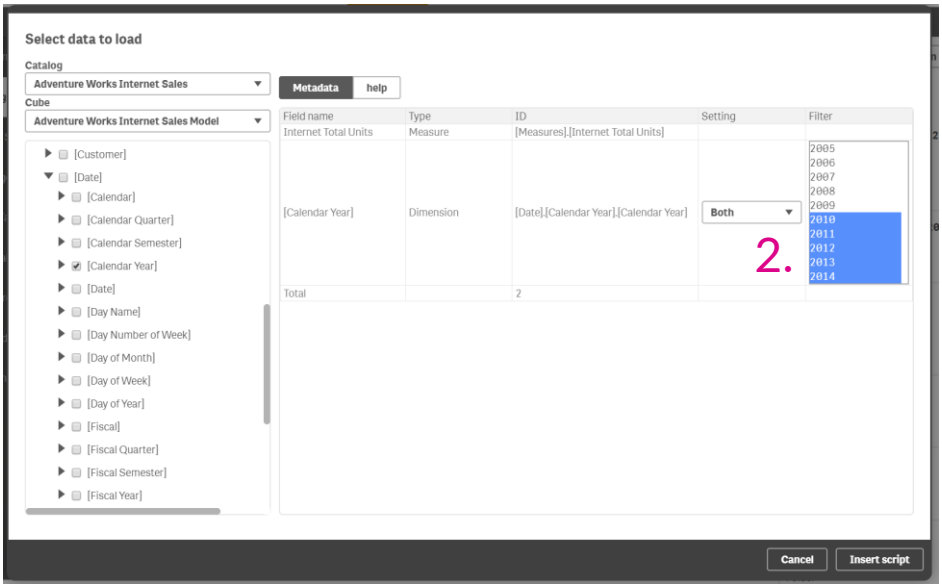




Dimension settings & filter

1. Setting are available for dimension:
   - Caption – The human readable name of the dimension member
   - Unique Member – The Cubes unique key for the dimension member
   - Both – Takes both above
   - Filter Only – Allows for filtering a dimension without including the filtered dimension in the data
2. Filter:
   - By clicking the cube icon in the filter option, the connector will load the list of dimension members.
   - It is possible to select one of more members to filter the dimension by





Notes
Tips & Tricks

Notes

- Qlik Sense
  - The data manager is at present time not supported for this connector, if a user tries to use it, they will get a message pointing them to the data editor.
- SSAS Connector
  - The connector doesn’t at present support two-factor login.
- SSAS Connector & the Cube
  - The connector is at all times limited by the resources and capabilities of the Cube server configuration. Designing the queries with some considerations of the nature of the cube can greatly help the cube server deliverer the data, reduce resource, load and load times.

Tips & Tricks

- SSAS – Error: Timeout
  - It is possible to create queries that exceeds the processing time limits defined in the Cube and the connector
    - The Connector has a default limit of 1000 seconds. This timeout can be increased by setting the parameter “cubeConnectionTimeout=xxxx” where xxxx is the timeout in seconds.
    - The Cube server often has an imposed limit usually at 3600 seconds. This can be increased by changing the property “ExternalCommandTimeout” on the Cube. Reference : Link
- SSAS – Error: Out of memory
  - It is possible to create queries that exceeds the capabilities of the server hosting the Cube, especially the memory. This can be mitigated by slicing the query up into multiple queries, e.g. by selecting a single year, period or country. This can be done by using the filter functionality in the user interface.
- SSAS – Complex MDX queries
  - The connector supports custom MDX queries not generated by the GUI, but it is required to declare the desired column in the top part between LOAD and MDX. The MDX query needs be placed in below the MDX keyword. It is a good idea to test the query in the Sql Server Management Studio or other tool before loading in qlik.