# Senturus Analytics Connector

# User Guide Cognos to Power BI

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### Overview

This guide describes how the Senturus Analytics Connector is used from Power BI after it has been configured.

Please refer to the *Senturus Analytics Connector Installation and Configuration Guide* for instructions on installing and configuring the Analytics Connector.

The Analytics Connector is designed for Power BI and has been tested against different versions, including both Power BI Desktop and Power BI Gateway on Windows starting with the August 2018 release. For optimal stability and performance, it is recommended that you keep your Power BI software fully updated.

# Data Connector vs SQL Server Database Connection

Starting from version 5.0, you can connect from Power BI Desktop and Power BI Gateway to Analytics Connector via SQL Server database connection.

If you migrated from version 4.x, you may still use our custom Data Connector to connect, all your old reports and data sources will continue working. And you can still use our custom Data Connector in new reports if you wish.

Comparing to custom Data Connector, using SQL Server database connection gives you following advantages:

- 1. No need to install Analytics Connector ODBC client<sup>1</sup>.
- 2. No need to copy custom Data Connector (.mez files).
- Use Windows authentication from Power BI Desktop to Analytics Connector server to Cognos.<sup>2</sup>
- 4. More Power BI functions are supported, e.g. <u>query cancellation</u>.

But there is a known issue when using SQL Server database connection to connect to Analytics Connector, you cannot filter decimal columns. This issue will be fixed in later releases.

Our custom Data Connector wraps Analytics Connector ODBC client and enables DirectQuery capabilities.

To use custom Data Connector, follow steps below:

- 1. Install Senturus Analytics Connector ODBC client. The latest ODBC client can be found at Senturus Analytics Connector - Customer Resources.<sup>3</sup>
- 2. Copy the Custom Data Connector "SenturusAnalyticsConnector.mez" from Analytics Connector server (under "<install\_root>\Power BI" folder) to you Power BI Desktop computer (under "{User}\Documents\Power BI Desktop\Custom Connectors" folder).

If your Senturus Analytics Connector server administrators made some changes using Senturus Data Source Configuration tool or Service Configuration tool, for example mapped a

<sup>&</sup>lt;sup>1</sup> You still need to install SQL Server Native Client 11 or above on your client computer.

<sup>&</sup>lt;sup>2</sup> Both Power BI Desktop and Cognos server must be secured by the same Active Directory service.

<sup>&</sup>lt;sup>3</sup> ODBC client is automatically installed when you are installing Senturus Analytics Connector server. So, you don't have to install ODBC client separately on the same computer.

new database to a Cognos package, or moved Analytics Connector server to a new host, a new "SenturusAnalyticsConnector.mez" file will be generated and you need to copy it again.

3. Start Power BI Desktop, go to Files -> Options and Settings -> Options, select Security on left panel, and under "Data Extensions" option, check "(Not Recommended) Allow any extensions to load without validation or warning." You need to restart Power BI Desktop.

# Connecting to Analytics Connector Server from Power BI Desktop

You don't connect to Cognos directly from Power BI Desktop or Power BI Gateway. Instead you connect to Analytics Connector server and Analytics Connector server connects to Cognos dispatcher on your behalf. For more information, please refer to "*Senturus Analytics Connector Installation Guide*", section Architecture Overview.

As mentioned before, you can connect to Analytics Connector Server using either Power BI built-in SQL Server database connector, or Senturus custom Data Connector.

### Conecting via SQL Server database connector<sup>4</sup>

To begin, open Power BI Desktop and select **Get Data -> SQL Server** from the ribbon. "SQL Server database" dialog pops up.

In Server input box, Type in hostname of IP of Analytics Connector server.

In **Database (optional)** input box, type in database name given by your Analytics Connector administrator when he/she mapped a Cognos package or data module to it. Please note, Database is mendentary in this case.

Check DirectQuery and (optionally) check "Navigate using full hierarchy".

<sup>4</sup> Make sure you have installed SQL Server Native Client 11 or above in order to use SQL database connection. The download can be found here: <u>https://www.microsoft.com/en-us/download/details.aspx?id=50402</u>

#### Then click on **OK** button.

SQL Server database	
O	
Server ① win03.example.com	
Database (optional)	
GO Sales (query)	
Data Connectivity mode 🛈	
O Import	
• DirectQuery	
Advanced options	
Command timeout in minutes (optional)	
SQL statement (optional, requires database)	
Include relationship columns	
Navigate using full hierarchy	
Enable SQL Server Failover support	
	OK Cancel

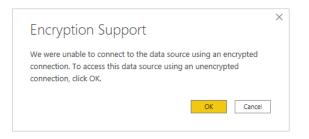
You can use either **Windows** authentication or **Database** authentication (by providing your Cognos login user name and password).

	SQL Server database	$\times$
Windows	win03.example.com;GO Sales (query)	
Database	User name cognos	
Microsoft account	Password  Password  Select which level to apply these settings to  win03.example.com;GO Sales (query)  Back Connect Cancel	

**NOTE:** Power BI desktop will securely store these credentials and skip this dialog if you have entered before.

To manage or delete the stored authentication information, go to File  $\rightarrow$  Options and settings  $\rightarrow$  Data source settings.

You may see a warning popup if SSL is not enabled on Analytics Connector server. Click **OK** to dismiss this message.



If your database is mapped from Cognos package, you will see following objects in Navifator panel:

- 1. Each namespace is mapped to a schema. Plus some system schemas as you will see when connecting to a real SQL server database.
- 2. Each query subject is mapped to a table.
- 3. Each query item will be mapped to a column. Plus a dummy column AAA\_LINK in each mapped table. See *Creating Relationships* regarding more informaton.
- 4. If you have standalone calculations under a namespace, each calculation is mapped to a column under a special table AAA\_CALCULATIONS (table name is configurable in Data Source Configuration tool). You can use this special table same as other query subject mapped tables.
- 5. If you configured schema to report folder mappings, each report will be mapped to a table under a schema. However, you cannot use report mapped tables as regular tables, please refer to *Working with Reports* for more information.

If your database is mapped from Cognos data module, you will see following objects in Navifator panel:

- 1. Only one schema with the same name as your data module. Plus some system schemas as you will see when connecting to a real SQL server database.
- 2. Each table in data module is mapped to a SQL Server database table.
- 3. If you configured schema to report folder mappings, each report will be mapped to a table under a schema. However, you cannot use report mapped tables as regular tables, please refer to Working with Reports for more information.

Select only tables you need to pull columns from and click on Load button.

Hint, you don't have to wait table preview to be loaded before clicking on Load button, and you can uncheck **Display Options -> Enable data previews** option to skip previews.

	Q	Products			C
splay Options 🔻	C.	AAA_LINK	Product line code	Product line	Product type co
Only selected items		1	994	Outdoor Protection	
Enable data previews	^	2	991	Camping Equipment	
Sales (query) [15]		3		Personal Accessories	
✓ □ Branch		4		Personal Accessories	
		5		Personal Accessories Personal Accessories	_
		6		Personal Accessories	_
		8		Outdoor Protection	
Order method		9		Camping Equipment	
Parameterized Products		10		Camping Equipment	
🗆 🛅 Parameterized Products 2		11	994	Outdoor Protection	
✓ 🦳 Products		12	994	Outdoor Protection	
🗖 🗖 Retailer type		13	994	Outdoor Protection	
🗆 🛅 Retailers		14	994	Outdoor Protection	
Sales		15		Outdoor Protection	
□ □ □ Sales staff		16		Camping Equipment	_
		17		Camping Equipment	_
□ □ Time (close date)		18		Camping Equipment	
		20		Golf Equipment	
Time (ship date)		21		Outdoor Protection	
🗖 🗖 User		22	995	Golf Equipment	
Sales target (query)		23	993	Personal Accessories	~
⊳ 🛑 sys	~	(			>

Power BI will then inspect the selected tables and load them into report.

Apply query changes	X
.: Sales Evaluating	
.∵ Time Evaluating	
.: Products Evaluating	
∴ Branch Evaluating	
	Cancel

After loading tables into Power BI, you need to create relationships among tables before building report pages. Please refer to *Creating Relationships* for more information.

### Connect via Data Connector

To begin, open Power BI Desktop and select Get Data.

Find the Senturus Analytics Connector in the list.

Click <b>Connect</b> .		
Get Data		×
Senturus :	All	
All	analytics Connector	
Other		
Certified Connectors	Connect Cancel	
	Connect Connect	

Power BI will display a dialog where you can select the Server, Port, Database, and Data Connectivity modes.

The Server, Port and Database lists are pulled from the configuration information in the DataSourceConfig.xml file under the server's Analytics Connector installation folder.

For the **Data Connectivity** mode, select *DirectQuery*.

#### Click OK.

Senturus Analytics C	Connector			
Server				
Server	*			
Port				
FOIL	•			
Database				
Database	*			
Data Connectivity mode 🕕				
Import				
<ul> <li>DirectQuery</li> </ul>				
		_	ОК	Cancel
		_	UK	Cancel

An authentication dialog will appear. Type in your Cognos credentials, then click **Connect**.

	Senturus Analytics Connector	$\times$
Basic	Senturus Analytics Connector	
	User name	
	Password	
	Back Connect Cancel	

**NOTE:** Power BI desktop will securely store these credentials and skip this dialog if you select the same Server and Database in a future connection.

To manage or delete the stored authentication information, go to File  $\rightarrow$  Options and settings  $\rightarrow$  Data source settings.

Once connected to the Senturus Analytics Connector data source, the **Navigator** window will display.

Select the tables you wish to include.

	P	Branch			
Display Options 👻	Co.	Preview downloade	d on Thursday, Oc	tober 4, 2018	
🖌 📕 Cognos_Senturus: GO Sales (query) [1]		_LINK_COLUMN_	Branch code	Address 1	Address 1 (multi
🖌 🧧 GO Sales (guery) [11]	$\sim$	1	6	75, rue du Faubourg St-Honoré	75, rue du Fau
Connector Reports		2		Piazza Duomo, 1	Piazza Duomo
		3		Singelgravenplein 4	Singelgravenp
-		4		Schwabentor 35	Schwabentor :
Inventory (query)		5		Leopoldstraße 36	Leopoldstraße
⊳ 🛑 ns1		6		Isafjordsgatan 30 C	Isafjordsgatan
⊳ 🛑 ns2		7		7800, 756 - 6th Avenue. S.W.	7800, 756 - 6tl
Product forecast (query)		8		789 Yonge Street	789 Yonge Str
Returned items (query)		9		1288 Dorchester Avenue	1288 Dorchest
		10		299 Yale Avenue	299 Yale Aven
⊳ 🔜 root		11		1288 South Barrington Ave.	1288 South Ba
🛛 📕 Sales (query) [14]		12		10032 NW 186th	10032 NW 186
AAA_CALCULATIONS		13		6c, rue de l'Église	6c, rue de l'Ég
🖌 📰 Branch		14		Prol. Paseo de la Reforma No. 51	Prol. Paseo de
Order		15		202-2-3 Hyakunincho 543-225 Asahi	202-2-3 百人田 543-225 旧
Order method		16		2315 Queen's Ave	2315 Queen's
Parameterized Products		17		Plaza de la Constitución, s/n	Plaza de la Col
		18		Avenida Paulista, 333	Avenida Paulis
Parameterized Products 2		20		Kauppakatu 33	Kauppakatu 3
✓ III Products		23		234-12, Kongdeok-Dong	공덕동 234-1:
🔲 🎫 Retailer type		22		10 Claymore Hill	克莱莫山 10 +
Retailers	$\sim$			10 oldymore min	>

### Power BI will then inspect the selected tables for column information.

Cancel

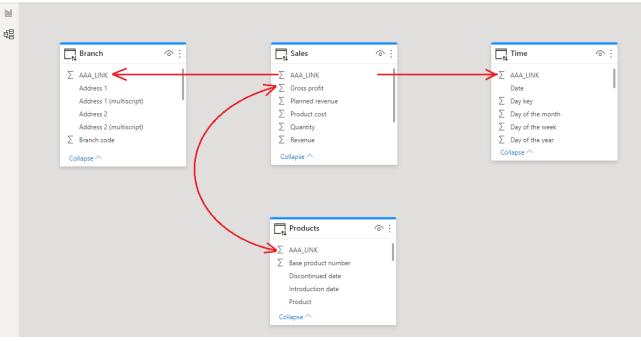
When complete, navigate to the Relationships view and creaste relationships among tables.

# **Creating Relationships**

Power BI requires relationships between the tables, but Cognos typically does not present primary key and foreign keys at the business user view.

The Analytics Connector injects AAA\_LINK columns into the tables so you can build relationships between the tables. The Analytics Connector ignores these columns when passing queries to Cognos to execute.

**NOTE:** It is very important that you create the relationships as described so that Power BI sends the appropriate queries to Cognos!



Start by dragging the AAA\_LINK column in the fact table to the AAA\_LINK table in the dimension table.

In the Create Relationship dialog, make sure the cardinality is set Many to one (\*:1).

Change the Cross filter direction to Both.

Check the box next to Assume referential integrity.

Click OK.

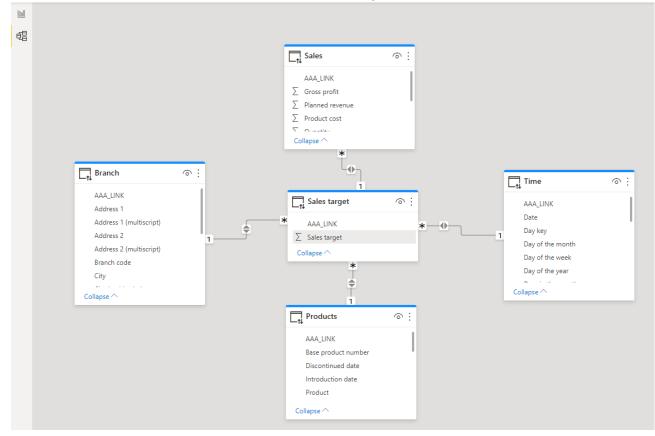
Hint: You don't have to wait Power BI to populate preview contents before clicking OK button. And if Power BI pops up an error dialog because it does not finish probing two tables yet, you can

simply dismiss and ignore that error, as Power BI will create relationships as you specified anyway.

Sales					*				
AAA_LINK	Quantity	Unit cost	Unit price	e U	nit sale price	Revenue	Product cost	Gross profit	Pla
	1 146	40.45		85	85	12410	5905.7	6504.	3
	2 8	42.73	i	89.3	89.3	714.4	341.84	372.5	6
	3 23	41.36		73	73	1679	951.28	727.7	
<									>
	2	39 Jedleser			Straße 7		null		Wien
	1	40 55 Rue R	othschild	55 Rue I	Rothschild	r	null	null	Genè
	3	39 Jedleser : 38 Interleuv					null	null	
<	2	58 Interieuv		interieu	veniddri 2	1	luli	nun	>
									-
Cardinality					Cross filter	direction			
Many to or	ie (*:1)				* Both				*
Make thi	s relationship	active			Apply set	ecurity filter i	n both directions		
Many to or		active			both	ecurity filter i	n both directions		*

Repeat these steps until the fact table has relationships to all dimension tables.

If you have multiple fact tables, chain these fact tables based on granularity and link the highest level fact table to dimension tables, as shown in the diagram below.



After creating relationships, change to the **Report** view.

D	5 0	Untitled	I - Power BI Deskte	р			х	uesong	g Gao 🌑	-	_ ×	ł
File	Home Insert I	Modeling View	w Help	Format	Data / D	rill	Table	e tool	s			
Paste	X     Get     Excel     Power BI       ✓     data ~     datasets		ces 🗸 🛛 data 🗸	m Refresh eries	New Text visual box	visual	-			Publish Share		^
u ti	Back to report					7	< <	<	Fields	ch	)	>
	Product line Camping Equipment	2010 332.986.338.06	2011 402,757,573	2012	0,382,422.83	2013 35;	- T	Visualizations				
	Golf Equipment	153,553,850.98	168,006,427		0,110,270.55	174		izat	∨ 🎛 Bra			
	Mountaineering Equipment		107,099,659	.94 16	1,039,823.26	14		ē.	🗸 🖬 🗛 🗠	ducts		
	Outdoor Protection	36,165,521.07	25,008,574	.08 1	0,349,175.84	4		S	🔨 🎛 Sale	es		
	Personal Accessories Total	391,647,093.61 914,352,803.72	456,323,355 1,159,195,590		4,009,408.42 , <b>891,100.90</b>	44: 1,117,				AAA_LINK	:	
									_ Σ	Gross pro	fit	
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	<					>						
Page 1	of 1			Storage	Mode: DirectQ	uery (clic	k to cl	hange)	Update avai	lable (click	to downloa	iq)

#### Use the columns under the **Fields** tab to create your report.

# **Cognos Parameterized Tables and Reports**

You cannot use parameterized tables (mapped from Cognos parameterized query subjects) or report mapped tables as regular tables. Power BI will not be able to import them if you select any parameterized tables or report tables:



When using parameterized query subjects in a Cognos report, or executing a pre-defined Cognos report with prompts, users will be prompted to enter parameter values. But you cannot provide parameter values in Power BI for regular database tables.

The answer is to write custom SQL and use **OpenTable** and **RunReport** functions to feed parameter values to Cognos.

### Working with Parameterized Tables

The Analytics Connector supports working with parameterized tables in Power BI by using the OpenTable function, which lets you pass parameter values to Cognos.

#### Example:

```
select p."Product line", p."Product type", sum(s.Revenue) as Revenue,
sum(s.Quantity) as Qantity
from
    OpenTable (
      "Sales (query)"."Parameterized Products",
      "p_product line code"="[991, 992, 993, 994, 995]",
      "p_Product Line"="'Golf Equipment'",
      "p_Date"="{d '2010-01-01'}",
      "p_Datetime"="'2010-01-01 19:00:00'"
    ) as p
```

```
join "Sales (query)"."Sales" as s on (p.AAA_LINK = s.AAA_LINK)
group by p."Product line", p."Product type"
```

Instead of selecting from table directly, you use OpenTable function (a tabular function) to invoke the parameterized table and join it to other tables. The first parameter "schema name"."table name" is the Cognos table name. This is followed by zero or more Cognos parameter name-value pairs separated by commas. For more information, please refer to *Function Syntax*.

To begin, open Power BI Desktop and select **Get Data -> SQL Server** from the ribbon. "SQL Server database" dialog pops up.

In Server input box, Type in hostname of IP of Analytics Connector server.

In **Database (optional)** input box, type in database name given by your Analytics Connector administrator when he/she mapped a Cognos package or data module to it. Please note, Database is mendentary in this case.

Check DirectQuery and (optionally) check "Navigate using full hierarchy".

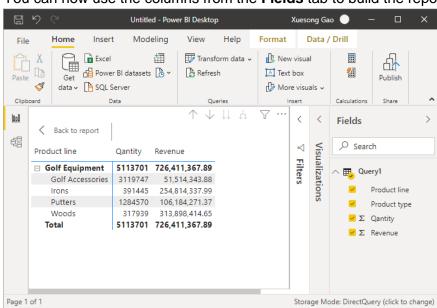
Expend "Advanced options", put custom SQL in "SQL Statement (optional, requires database)" box.

### Click OK.

Server 🛈	
localhost	
Database (optional)	
GO Sales (query)	
ata Connectivity mode 🕕	
O Import	
DirectQuery	
Advanced options	
Command timeout in minutes (optional)	
QL statement (optional, requires databas	e)
<pre>select p."Product line", p."Produ from OpenTable ( "Sales (query)"."Parameterize "p_product line code"="[99], </pre>	
Include relationship columns	
<ul> <li>Include relationship columns</li> <li>Navigate using full hierarchy</li> </ul>	

### A data preview window will display. Click Load.

ocalhost	t: GO Sale	es (quei	ry)		
Product line	Product type	Revenue	Qantity		
Golf Equipment	Golf Accessories	51514343.88	3119747		
Golf Equipment	Irons	254814338	391445		
Golf Equipment	Putters	106184271.4	1284570		
Golf Equipment	Woods	313898414.7	317939		



You can now use the columns from the Fields tab to build the report.

### Working with Reports

The Analytics Connector supports working with Cognos reports in Power BI by using the RunReport function, which lets you pass parameter values to a Cognos report.

Analytics Connector only support list style Cognos reports, not crosstabs or charts.

### Example:

```
Select *
From
    RunReport (
        "Connector Reports"."Parameter Report",
        "p_product line code"="[991,992,993,994,995]",
        "p_Product Line"="'Golf Equipment'",
        "p_Date"="'2010-01-01'",
        "p_Datetime"="2010-02-01 19:00:00"
) as "Report"
```

The first parameter "schema name". "report name" is the Cognos report. This is followed by zero or more Cognos parameter name-value pairs separated by commas. For more information of about RunReport function, please refer to *Function Syntax*.

To begin, open Power BI Desktop and select **Get Data -> SQL Server** from the ribbon. "SQL Server database" dialog pops up.

In Server input box, Type in hostname of IP of Analytics Connector server.

In **Database (optional)** input box, type in database name given by your Analytics Connector administrator when he/she mapped a Cognos package or data module to it. Please note, Database is mendentary in this case.

Check DirectQuery and (optionally) check "Navigate using full hierarchy".

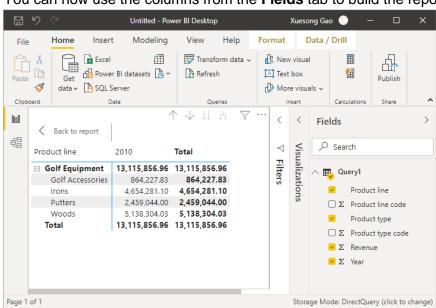
Expend "Advanced options", put custom SQL in "SQL Statement (optional, requires database)" box.

### Click OK.

SQL Server database	
Server ①	
localhost	
Database (optional)	
GO Sales (query)	
Data Connectivity mode ①	
O Import	
• DirectQuery	
Advanced options	
Command timeout in minutes (optional)	
SQL statement (optional, requires database)	
Select * From	~
RunReport (	
"Connector Reports"."Parameter Report",	
"p_product line code"="[991,992,993,994,995]", "p_Product Line"="'Golf Equipment'",	$\checkmark$
✓ Include relationship columns	
Navigate using full hierarchy	
Enable SQL Server Failover support	
	OK Cancel

### A data preview window will display. Click Load.

Product line code	Product line	Product type code	Product type	Year	Revenue
995	Golf Equipment	968	Irons	2010	4654281.1
995	Golf Equipment	969	Woods	2010	5138304.03
995	Golf Equipment	970	Putters	2010	2459044
995	Golf Equipment	971	Golf Accessories	2010	864227.83



You can now use the columns from the Fields tab to build the report.

### Working with Power BI Parameters

In your Power BI ODBC queries, you can replace the static values with Power BI parameters to create dynamic values that can be easily changed.



After configuring a <u>Parameterized Table</u> or <u>Report</u> query, click **Edit Queries** to bring up the Power Query Editor.

#### Click Manage Parameters to display the Parameters dialog.

#### Create a new parameter.

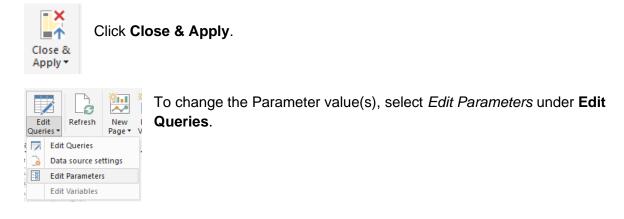
Parameters		
	New	Name
Start_Date	$\times$	Start_Date
		Description
		Start date to pass to the parameterized table
		✓ Required
		Туре
		Date *
		Suggested Values
		Any value 👻
		Current Value
		1/1/2010
		1/1/2010
		OK Cancel

Next, edit the query to include the parameter in the SQL statement. You may need to format non-text data types using M language functions in order to append them to the statement.

Queries [2] 🛛 🗸	×	$\checkmark$	fx	= Odbc.Query("dsn=Senturus Colo .45", "Select * From (#(lf)OpenTable(#(lf) ""Sales (query)"".""Parameterized Products"", #(lf) ""p.product line code""=""[991, 992, 993, 994, 995]"", #
▲ Query1				<pre>(uti ) . Prainmeter ized routies , *(i) p_product inte Code = [951 956, 957, 957, 957, 957, 957], ** (lf) ""p_Product Line"=""1601 Equipment", #(lf) ""p_Dater """18 Date. ToText(Start_Date, "yyyy-MM- dd") &amp; """</pre>
🔡 Start_Date (12/1/2				

The below example formats a date parameter to text and appends it to the SQL statement.

**NOTE:** Double quotes must be escaped by using two sets of double quotes.



The Enter Parameters dialog will display with a list of configured parameters and their values.

Fill in new values and click **OK**.

Enter Parameters				$\times$
Start_Date () 12/31/2009	]			
		OK	Cancel	

Click **Apply Changes** if the data does not refresh.



### **Function Syntax**

Both OpenTable and RunReport functions adopt same syntax.

#### Syntax

Both OpenTable and RunReport function adopt following syntax: OpenTable ( "Schema Name"."Table/Report Name"(, "Parameter"="value", ...) )

The first parameter is a table identifier, using standard SQL syntax. All identifiers are case insensitive and the schema name can be omitted if the table name is unique cross schemas.

Any additional parameters are name-value pairs, separated by commas. Name and values should be surrounded by double quotation marks.

#### Parameters

Use parameter name in place of "Parameter" for the Cognos connector.

#### Values

All values should follow SQL/ODBC standard.

Only plain string representation is allowed for numeric values. Formatted representations such as **1,200.00** with thousand separators, **(15)** for -15, or **50%** for .5 are not supported.

For string values, single quotation marks are used around the value. For example, 'Golf Equipment' or 'Sam''s Club'.

For date/time/timestamp values, use the ODBC standard format. For example {d '2010-01-01'} or ISO 8601 standard format, 'YYYY-MM-DD' for date, 'hh:mm:ss' for time and 'YYYY-MM-DD hh:mm:ss' for timestamp.

An array of values is passed using brackets. For example:

• "product line code"="[991,992,993,994,995]"

The syntax for a Range parameters is represented by a 2 element array. For example:

- "YearRange"="[,2019]" All years less than or equal to 2019
- "YearRange"="[2015,]" All years greater than or equal to 2015
- "YearRange"="[2015,2019]" Years between 2015 and 2019

#### Character escaping

Certain characters must be escaped.

For single quotes within a string value, use two single quotes to escape a single quote inside the string.

Double quotes in parameter name and values need to be escaped with two double quotes.

#### Passing multiple values to a parameter

A Cognos parameter may accept multiple values, for example [Product line code] in (?p\_Product line code?). To specify multiple values in your function, put multiple values in a pair of square brackets ([]) and separate each value by a comma (,) just like CSV format.

## Publish to powerbi.com

After creating a Power BI report, you can publish it to powerbi.com and share it with others. Simply click on Publish button and select a destination you want to publish.

In order to allow powerbi.com access your on-premises data, you need to install and configure Power BI Gateway. If you use custom Data Connector in your Power BI report, you need to install Senturus Analytics Connector client on the computer where Power BI Gateway is running and copy custom connector file to it. For more information, please refer to Senturus Analytics Connector Installation Guide.

To publish a Power BI report from Desktop to powerbi.com, follow steps below:

1. Connect to Senturus Analytics Connector server using SQL Server database connection or custom data connector.

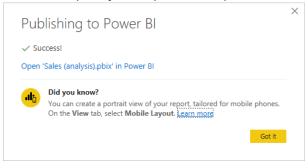
SQL Server database	
Server ① internal-bi1	
Database (optional)	
GO Sales (analysis)	
Data Connectivity mode ①	
O Import	
<ul> <li>DirectQuery</li> </ul>	
Advanced options	
Availed options	
	OK Cancel
Senturus Analytics Connector	
Senturus Analytics Connector	
Server ①	1
Server ① internal-bi1	]
Server ① internal-bi1 Port ①	
Server ① internal-bi1	]
Server ① internal-bi1 Port ①	
Server ① internal-bi1 Port ① 5432	
Server ① internal-bi1 Port ① 5432 Database ① GO Sales (analysis)	
Server ① internal-bi1 Port ① 5432 Database ① GO Sales (analysis) Data Connectivity mode ①	
Server ① internal-bi1 Port ① 5432 Database ① GO Sales (analysis) Data Connectivity mode ① O Import	
Server ① internal-bi1 Port ① 5432 Database ① GO Sales (analysis) Data Connectivity mode ①	
Server ① internal-bi1 Port ① 5432 Database ① GO Sales (analysis) Data Connectivity mode ① O Import	

2. Create your visualization, save Power BI report, click Publish button.

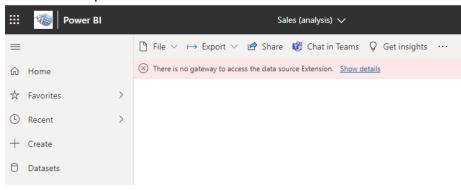
3. Select a destination and click on Select.

Publish to Power Bl	
elect a destination	
Search	
My workspace	^
Cognos Report Insights	
Intranet	
MWD Senturus	
Senturus Analytics for Salesforce	~
Teleiee Zeee	

4. Click on "Open 'your report name.pbix' Power BI" in the success dialog:



5. You will see an error if you did not setup a gateway using the same connection settings you entered in step 1 before.



6. Go to the workspace, hover over your mouse right to the newly created data set, and click on "More options" button, then "Settings":

		AC_as_SQL Kerberos				
🛄 Learn	8	GO Sales (query)			Secu Rena	
Workspaces  My workspace		GO Sales (query) - SQL - Basic Auth			Setti	ngs
	B	GO Sales (query) data connector po	stgres	;		nload the .pbix age permissions
	8	RunReport				lineage
	8	اد Sales (analysis)	Q	21	÷	Dataset
		Sales (query)				Dataset

7. Click on the arrow button under Actions column and click on "Manually add to gateway". If you did add a data source using the same connection settings before, you will see a drop-down list of data sources instead of "Manually add to gateway" button. In that case, you can select a data source for your dataset without creating a new data source.

Settings for GO Sales (query)

	One or more cloud dat <u>Recreate cloud data so</u>	ta sources for this dataset ha ources	ave been deleted.		
	<u>resh history</u> ataset description				
To ga		ase select the corresponding dat		<u>Gateways</u> . If you're using an On-prer	nises data
	Gateway	Department	Contact information	Status	Actions
(	Gateway	Department	Contact information	Status Not configured correctly	Actions
		·			~

8. Now you can create a data source under a particular gateway.

If you are using SQL server connections in your report, you can create data sources just like you do for other SQL server data source except that you have to pick Basic "Authentication"

### method". Here is an example:

Data Source Settings Users

Data Source Name	
GO Sales (analysis)	
Data Source Type	
SQL Server	~
Server	
internal-bi	
Database	
Sales (analysis)	
Authentication Method	
Basic	~

The credentials are encrypted using the key stored on-premises on the gateway server. <u>Learn more</u> Username

cognosembed@senturus.com

Password

.....

Skip Test Connection

>Advanced settings

Add Discard

If you are using custom data connector, you need to select "Senturus Analytics Connector" from the Data Source Type list. Here is an example

Data So	urce Settings Users
Data Source Na	ne
GO Sales (	nalysis)
Data Source Ty	e
Senturus	nalytics Connector 🗸
Server	
internal-bi	
Port	
5432	
Database	
Sales (anal	rsis)
The credent	als are encrypted using the key stored on-premises on the gateway server. Learn mor
Username	
cognosem	ed@senturus.com
Password	
🗆 Skip Test	Connection
>Advanced	settings
Add	Discard

Please note, you need to type in the exat server, port and database here as you have in Power BI Desktop (case sensitive). Please refer to step 1.

9. After creating data source, go back to data set settings, map the data source and click on Apply.

Settings for Sales (ar	nalysis)			
▲ One or more cloud data <u>Recreate cloud data sou</u>		ave been deleted.		
Refresh history				
<ul> <li>Dataset description</li> </ul>				
<ul> <li>Gateway connection</li> <li>To use a data gateway, make su gateway (standard mode), plear</li> <li>Use an On-premises or VN</li> <li>On</li> </ul>	se select the corresponding dat	the data source is added in <u>Manage</u> ta sources and then click apply.	<u>Gateways</u> . If you'r	e using an On-premises data
Gateway	Department	Contact information	Status	Actions
bi1.gateway		xgao@senturus.com	⊘ Running o	on INTERNAL-BI1 🛞 👻
Data sources included	in this dataset:			
	sionDataSourceKind":"Sent ionDataSourcePath":"{\"sen	ver\":\"internal-b	Maps	
i1\",\"port\":\"54	32\",\"database\":\"GO Sale	(G) Sale	s (analysis)	<u>~</u>

10. Finally, you can open your report and/or create new reports with your dataset.

# CONTACT US

The latest version of the Analytics Connector along with related documentation and contact information can be found at <a href="https://www.senturus.net/connector-download/">https://www.senturus.net/connector-download/</a>.

If you have any additional questions, please contact us at <u>CustomerSupport@senturus.com</u>.