

BI Connector

Security Overview

For Connecting Power BI to OBIEE and OAC



Table of Contents

Introduction

How BI Connector Works

The Data Security Checkpoints

- Authentication

- OBIEE Password Security

- Secure Transport Using HTTPS

- Role & User-Based Access to OBIEE Data from Power BI

- Is Any Data Shared Externally with BI Connector?

BI Connector's Proven Secure Model

Conclusion

Introduction

When organizations evaluate BI Connector for connecting Power BI to OBIEE, one of the critical questions they have is - **Does BI Connector integrate Power BI and OBIEE securely?**

The question, in fact, is inevitable for any organization connecting two powerful platforms - Power BI and OBIEE for leveraging the best of both.

In this whitepaper, we've covered how BI Connector integrates Power BI and OBIEE securely. We highly recommend BI Connector users to pass on this article to your organization's Data Security and Governance teams. This whitepaper will address their potential concerns and assure that BI Connector is a secure solution for the integration.

Before diving into the security aspects, let's first understand How BI Connector works.

How BI Connector Works

BI Connector is technically an ODBC driver equipping users to configure DSNs of OBIEE Subject Areas and Reports.

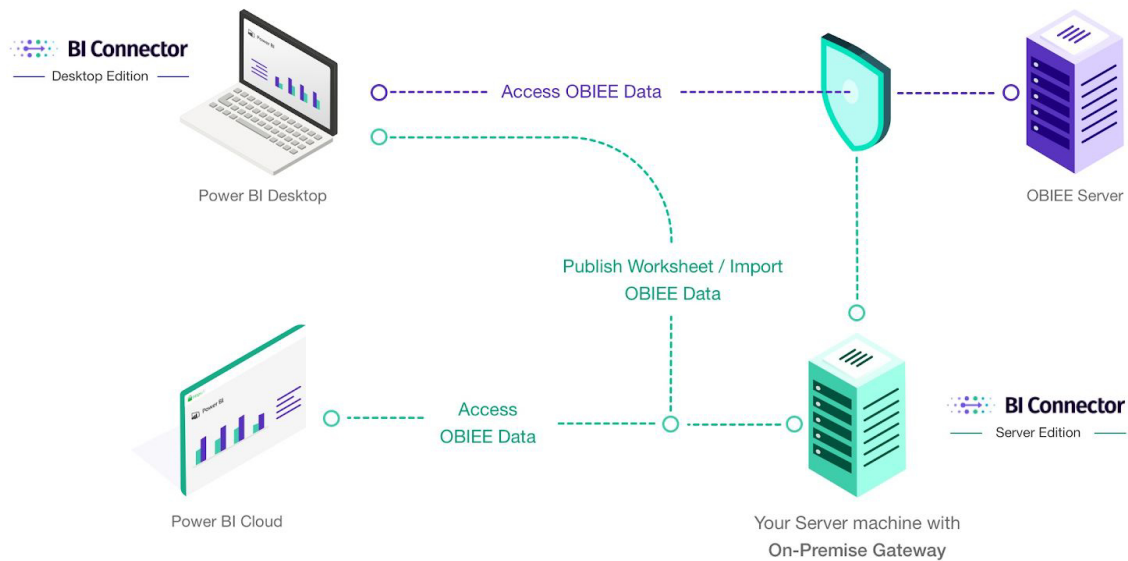
The users can connect Power BI to the configured OBIEE DSNs using BI Connector (Power BI certified) to get data via Import or Direct Query, as needed. BI Connector also enables users to retain the OBIEE joins and aggregations for analysis.

After successfully establishing connectivity to an OBIEE DSN from Power BI, BI Connector translates the Power BI queries into OBIEE queries. After receiving each translated query, OBIEE fetches the data underlying that query and sends it back to Power BI for visualization.

BI Connector is available in both Desktop and Server editions to meet the needs of organizations using different Power BI editions (Power BI Desktop, Power BI Pro, Power BI Premium, and Report Server) by providing a seamless, self-service visualization experience of your OBIEE data. BI Connector also supports Scheduled Refresh of your OBIEE data via the On-premise Gateway.

Here's a depiction of the reference architecture used by BI Connector for connecting Power BI to OBIEE.

Secure Access to OBIEE Subject Areas & Reports With BI Connector



 Certified Connector |  **BI Connector** is Power BI certified.

Now let's take a look at how BI Connector does all of this securely.

The Data Security Checkpoints

When connecting Power BI to OBIEE, BI Connector provides the highest level of data security across the following layers:

1. Authentication
2. OBIEE Password Security
3. Secure Transport Using HTTPS
4. Role and User-based OBIEE Security
5. No External Data Sharing

Authentication

The users' OBIEE credentials get authenticated at the following instances:

1. DSN Setup
2. Connecting to a DSN from Power BI

Let's take a quick look at these below.

DSN Setup

When setting up an OBIEE DSN, the users are required to enter the URL, Port number, and OBIEE credentials. After successfully establishing the connection, the users can only choose from the Subject Areas or Reports they are authorized to access in their respective OBIEE accounts, and complete the DSN setup.

The URL entered can be the Secure Socket Layer(SSL) enabled **HTTPS** URL for OBIEE or the **HTTP** URL. The authentication is just similar to typing the URL in a browser window and accessing the OBIEE account.

Connecting to a DSN from Power BI

When connecting from Power BI to an OBIEE DSN through BI Connector via any of the connection types (Import or Direct Query), the users are required to get authenticated by entering their OBIEE credentials.

Note: In Power BI Desktop, the users can access only the data they are authorized to access (in the OBIEE end) through BI Connector. However, in the case of Power BI Service, the Data Governance policies are required to be manually implemented, as for any other data source.

OBIEE Password Security

While the OBIEE password is used to test the connection and configure the DSN, BI Connector does not store the password. The user has to enter the password every time they test connection or change the DSN settings for OBIEE.

Secure Transport Using HTTPS

If your OBIEE is set up with HTTPS, BI Connector will use HTTPS Secure Transport Protocol to connect from Power BI/BI Connector to OBIEE and execute the queries. This ensures secure data communication between the two platforms.

Role & User-Based Access to OBIEE Data from Power BI

The Data Security teams are sure to have another important question - **How does OBIEE Role and User-based Access translate into Power BI environments?**

Well, it depends on the Power BI product and the type of connection (Import or Direct Query) the user chooses.

When a user connects from Power BI Desktop to OBIEE through BI Connector using his/her OBIEE credentials, the user will be able to access only the data that he/she is authorized to access in the OBIEE environment (based on their OBIEE role and user-based access privileges).

When users connect to OBIEE data sources from Power BI Cloud Service, an OBIEE service account is used to connect to OBIEE/OAC from the On-Premise Gateway. Power BI On-Premise Gateway does not support individual user based connections. Therefore, you have to implement the data security in Power BI Cloud.

If the user is connecting to an OBIEE DSN via **Import**, then the data generated by the query will be shared with Power BI, like for any other data source, and stored by Power BI in its in-memory cache. The users can re-import the latest data just by manually refreshing the data or by setting up Scheduled Refresh via the On-premise Gateway. The users can share this data with other users as per Power BI security policies.

When connecting to an OBIEE DSN via the **Direct Query**, BI Connector transforms the Power BI queries into OBIEE queries (and fetches the underlying data back to Power BI) every time a query is made in the Power BI end. In this case, the user will access the latest data in OBIEE, and the data will not be stored in Power BI.

Is Any Data Shared Externally with BI Connector?

The next question that comes up to the Data Security teams is if their company data is shared externally with the BI Connector Team.

The answer is No. BI Connector is an on-premise solution that only processes the Power BI queries and transforms it into OBIEE queries. BI Connector does not read or store or share the data generated by the queries.

For troubleshooting purposes, BI Connector records the queries (and not the data) in its log files. Our Support Team would request the log files from you for troubleshooting. The only data shared with BI Connector is the license registration and activation information.

BI Connector's Proven Secure Model

As a Power BI Certified connector, BI Connector has passed many stringent tests by the Power BI team before getting listed as a certified connector.

And BI Connector is in action at many leading Organizations such as McDonald's, Oliver Wyman, McAfee, and more for securely connecting their preferred viz. tool to OBIEE and OAC data sources.

Conclusion

BI Connector, apart from effectively connecting Power BI to OBIEE and OAC, has always focused on getting it done securely to address the concerns of the Corporate Data Security teams.

If you have any further questions, please contact us at support@biconnector.com