Solution Brief

# Kyligence Pivot to Snowflake

Pivot tables are one of the most powerful analytical features in Excel. With pivot tables, users can gain valuable insights by summarizing detailed records across multiple worksheets. Pivot tables enable analysts to conduct multi-dimensional analysis without writing complex SQL statements. The data in the pivot table can also be used to draw Pivot Charts and build dashboards.

Unfortunately, it has not been possible for users to run pivot tables against Snowflake data directly. A common workaround is to download a subset of data from Snowflake to local laptops and analyze them as a bunch of CSV files. But ideally, we'd like to use pivot tables on live data.

## Solution

Kyligence Pivot to Snowflake is a solution for Snowflake users. It leverages Kyligence Cloud MDX, Unified Semantic Layer, and Query Pushdown capabilities to enable Excel users to build pivot tables on top of Snowflake data warehouses.

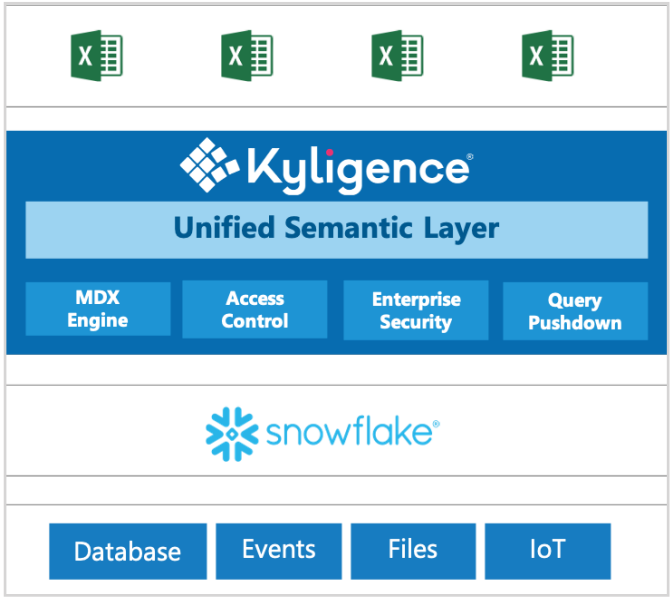
Kyligence Pivot to Snowflake requires no additional training for Excel users, nothing to install on the client, and no real change in user behavior except that they will have access to the data riches contained in Snowflake cloud data warehouses.

### Kyligence Pivot to Snowflake

- Excel pivot table support
- Unified Semantic Layer
- Full MDX engine
- Fine grained access control
- Enterprise security features
- Query pushdown

### Strengths

- No end user training required
- Nothing to install on the client
- No special Excel configuration
- Greatly expands the reach of Excel
- Seamless security and access




Kyligence Pivot to Snowflake architecture

**Unified Semantic Layer:** This is where the data model is defined based on the underlying table structure. Advanced logic, such as hierarchies, calculations, etc. are also defined here. The data model and business logic are exposed to the BI tools including Excel pivot tables.

**MDX Engine:** The MDX engine parses MDX statements issued by the pivot tables and converts them into SQL queries, which is the language spoken by Snowflake.

**Access Control:** Access to information at table, row, column, and cell level is centrally defined.

**Enterprise Security:** Kyligence can be integrated with common cloud security services.

**Query Pushdown:** Instead of working with a data extract, parsed SQL queries are sent to Snowflake directly. This is basically the equivalent of the "Direct Query" mode in many BI tools.

# Benefits

Here are some of the benefits of the Kyligence Pivot to Snowflake solution.

**Quick time-to-insight**

This solution can be easily deployed on your preferred cloud platform (Azure, AWS, etc.), in your region of choice. A data model can be defined with several mouse clicks once we connect to the Snowflake tables.

**Maximize your Snowflake investments**

Data stays in Snowflake. Kyligence collects metadata information from Snowflake without moving or loading the data.

**Business user friendly**

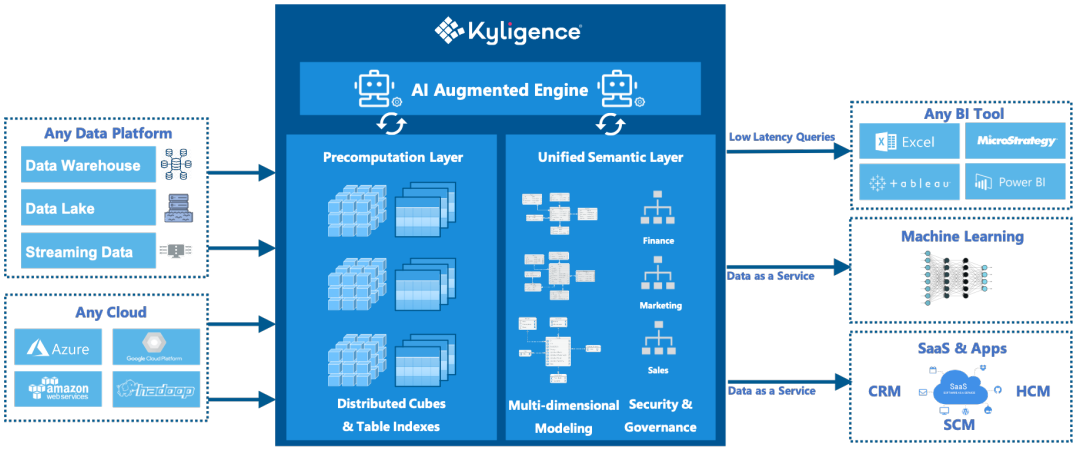
Pivot table users are working with business logics directly. They don't need to know the technical details such as tables, columns, and scripts.

**Reduced learning curve**

The Kyligence solution supports Microsoft SQL Server Analysis Services (SSAS) syntax, which is very familiar to many Excel users.

**Future-proof**

With more data stored in Snowflake and more users querying the warehouse, customers can easily turn on the query acceleration capabilities to improve query performance.




Kyligence Cloud architecture

# About Kyligence

Founded by the creators of Apache Kylin, Kyligence Cloud provides an intelligent analytics performance layer that sits between data sources) and BI tools , Kyligence features an AI-augmented learning engine to ensure peak performance and vastly simplified data modeling. The result is sub-second query response time for BI, SQL, OLAP, and Excel users even against petabytes of data.

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