Smarten
Advanced Data Discovery
Powered by ElegantJ BI

Working with Real-time Cubes or Datasets

Business Intelligence & Advanced Data Discovery

www.Smarten.com

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Disclaimer

This document is intended to support administrators, technology managers or developers using and implementing Smarten. The business needs of each organization will vary and this document is expected to provide guidelines and not rules for making any decisions related to Smarten. The overall performance of Smarten depends on many factors, including but not limited to hardware configuration and network throughput.

Contents

1   Real-Time Data Architecture

Smarten offers real-time analytics through its real-time data architecture. Real-time analytics is required in various use cases, such as the stock market, telecommunications, IT infrastructure management, and IoT, where recent data is important, and users need to access data in real time.

The Real-Time Data Connector does not store or cache any data in the cubes or datasets. It extracts the data from data sources as and when required and always retrieves the latest data from data sources. It connects to JDBC / ODBC-compliant relational databases, such as Microsoft® SQL Server, Oracle, and MySQL.

SMARTEN—REAL-TIME CUBE SYSTEM ARCHITECTURE
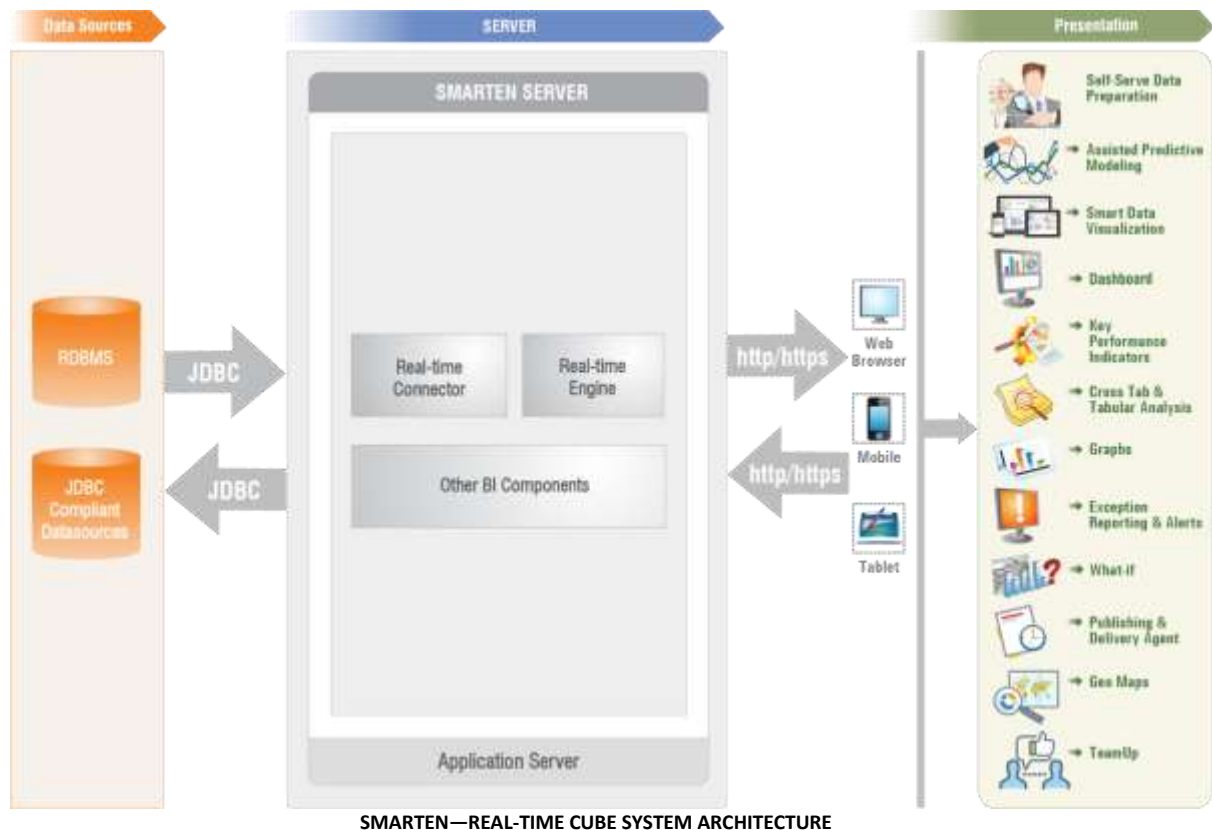
The Smarten Real-Time data connector provides two ways to connect to a database:
1) through graphical UI wizard
2) through paste query option

The Smarten real-time data connector through wizard allows the user to select databases, tables, and columns, and define relationships by a drag and drop interface. The Smarten real-time data connector through paste query allows users to paste a generated query.

Users can access real-time cubes or datasets in Smarten by the following steps:
• Create Database Profile / Use existing database profile
• Define Real-Time Cube or dataset
• Access Real-Time cubes or datasets from Smarten front-end tools

Create Data Source Profile:
Users can enter required configuration parameters, such as driver name, URL, user name, and password. It validates the connection and creates the database profile in the system.

Define Real-Time Cube or dataset:

To define the real-time cube or dataset, users can select the database profile created in the above step. After selecting the database profile, the system will connect to the data source and provide easy-to-use steps to define the real-time cube or dataset metadata within Smarten.

- Configuration of database profile using JDBC/ODBC driver
- Connection with database
- Design SQL statement in two ways:
  - Graphical Query Designer
  - SQL Query in editor
- Metadata definition for cube or dataset by designing and mapping data source columns and cube or dataset dimension and measure columns
- Define Dimension Map Hierarchy

Access Real-Time Cubes or datasets from Smarten front-end tools:

Users can access real-time cubes or datasets from front-end objects, such as dashboards, crosstab, tabular, graphs, GeoMap and KPI. SQL queries are formed dynamically based on user actions from BI front-end tools, e.g., outliner settings or add column from crosstab. Dynamically generated SQL queries are sent for execution to SQL executor, and database engine returns query results, which are then processed and displayed to the user.

Please note here that cube or dataset and analytic functions available to users depend on the type of cube or datasets used in a particular front-end object. Refer to the Smarten-Feature Matrix Based on Data Sources for a list of functions available while using real-time cubes or datasets.

> Note:
> Users can use global variables in cube query while rebuilding Real-Time cubes.
> Users can also use the predefined system level global variable '$currentuser$' in cube query while creating or rebuilding Real-Time cubes.

2   Product and Support Information

Find more information about ElegantJ BI-Smarten and its features at www.smarten.com
Support: support@smarten.com
Sales: sales@smarten.com
Feedback & Suggestions: support@smarten.com
Support & Knowledgebase Portal: support.smarten.com