# Sterling Business Intelligence<sup>™</sup>

## **Release Note**

Release 8.5

October 2009





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Sterling Commerce, Inc.

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## **Features**

Business Intelligence provides the capability to gather, store, and analyze data stored in various applications to help customers take intelligent and informed decisions about taking their business forward.

The Sterling Business Intelligence solution helps extract information from the Selling and Fulfillment Foundation suite of applications used by an enterprise, analyze the data, and generate business reports with the help of IBM<sup>®</sup> Cognos<sup>®</sup> reporting tools. Sterling Business Intelligence helps users map and denormalize the transactional and operational data, and provides tactical information.

Sterling Business Intelligence solution's analytic database has been designed to provide the information required by decision makers whose ability to set current goals is dependent on how well their business fared in the past. Consequently, the Cognos Business Intelligence layer is bundled as part of the Selling and Fulfillment Foundation.

## **IBM Cognos Business Intelligence Layer**

The Sterling Business Intelligence solution leverages on the following IBM Cognos products for generating the dashboards and reports:

The Sterling Business Intelligence solution leverages on:

#### IBM Cognos 8 Business Intelligence

This is a Web-enabled reporting tool that is used for creating and managing ad hoc reports and scheduled reports. It includes Query Studio and Report Studio. Query Studio enables users to create ad hoc reports through a graphical user interface, and save the reports in a variety of formats, such as PDF, Excel, real-time reports, and prompted reports. Report Studio enables users to build reports that are more complex than reports produced in Query Studio.

#### **IBM Cognos Adaptive Analytics**

This is a design tool to create the analytic model for reports. It is an information modeling environment for generating and deploying analytic reports and operational reports to a portal for use by customers. Adaptive Analytics makes a user's job of creating and administering reports faster and simpler.

#### IBM Cognos Adaptive Warehouse

This is a design tool to construct a data warehouse and create a target model based on which the reports are created.

The Sterling Business Intelligence solution provides various dashboards and reports such as Perfect Order Dashboard, Volume Analysis B2B Dashboard, Volume Analysis B2C Dashboard, Order Velocity Dashboard, and other reports.

## **Business Intelligence Terminology**

#### ◆ Data Warehouse

A data warehouse is a relational database that is designed for query and analysis, rather than for transaction processing. It usually contains historical data derived from the transaction data, and can include data from other sources too. It separates analysis workload from transaction workload, and enables an organization to consolidate data from several sources.

The schema designed for transactional processing is referred as online transaction processing (OLTP). The schema designed for analysis purposes is called online analytical processing (OLAP).

#### ◆ Data Mart

It is also known as local data warehouse. A data mart is a database that has the same characteristics as a data warehouse, but is usually smaller, and is focused on data for one division or one work group within an enterprise. Following are the data mart objects:

#### Dimension Table

This is also known as a lookup table or reference table. It contains relatively static data in a warehouse, and stores the information that is usually used to contain queries. Dimension tables are usually textual and descriptive and can be used as row headers. Examples of dimension tables are Customers and Products.

#### Fact Table

This is a large table in the data warehouse schema that stores business measurements. It typically contains facts and foreign keys to the dimension tables, and usually represents numeric and additive data that can be analyzed and examined. Examples of fact tables include Sales, Cost, and Profit.

#### ◆ Summary Table

This is built in the database to reduce the amount of processing time involved in gathering data that is frequently used from the detailed fact table.

#### Star Schema

This is the simplest data warehouse schema. It is called a star schema because the diagram resembles a star, with points radiating from the center. The center of the star consists of one or more fact tables and the points of the star are the dimension tables. A star schema optimizes performance by keeping queries simple and providing fast response time. All the information

pertaining to each level is stored in one row. Star schema allows you to perform an analysis based on the metrics in a fact table by the attributes of the dimensions linked to it.

For example, to calculate the total sales of a particular product in a quarter, the corresponding fact table is used to derive data. The product and time dimensions provide the contextual information about the particular product and the quarter.

#### Snow Flake Schema

This is a type of star schema in which the dimension tables are either partly or fully normalized.

#### ETL.

The online analytical processing (OLAP) database should be loaded regularly to perform the task of facilitating business analysis. In order to load the database regularly, data from one or more online transaction processing (OLTP) systems must be extracted and copied into the data warehouse. The process of extracting data from source systems and bringing it into the data warehouse is commonly called ETL, which stands for extraction, transformation, and loading.

#### Denormalization

The process of flattening the design of a database by adding redundant data or by grouping data is known as denormalization. A relational normalization database imposes a heavy access load on the physical storage of data even if the database is well tuned for optimal performance. In some cases, denormalization helps to resolve these inefficiencies in the relational database.

### **Sterling Business Intelligence Dashboards and Reports**

The following dashboards and reports are available in Sterling Business Intelligence:

#### ◆ Perfect Order Dashboard

The Perfect Order Dashboard displays the metrics that have been captured at various stages of an order fulfillment cycle. The Perfect Order Dashboard enables organizations to understand how they have managed customer expectations.

#### ♦ Volume Analysis B2C Dashboard

The Volume Analysis B2C Dashboard provides information about the revenue generated for a selected time period. The Volume Analysis B2C Dashboard helps organizations understand how efficiently they are managing their business. Analysis by product category helps customers understand the distribution of revenue under each product category. The Volume Analysis B2C Dashboard also helps organizations study the distribution of revenue pertaining to a particular region.

#### ♦ Volume Analysis B2B Dashboard

The Volume Analysis B2B Dashboard provides insights into the business volume of the Buyer partners of an enterprise. The orders captured are a good estimate of the volume of business that an enterprise is generating. Analysis by product category or product enables organizations identify their most profitable products.

#### ♦ Node Performance Dashboard

The Node Performance Dashboard provides visibility into the fulfillment efficiency process at a node.

#### ♦ Order Velocity Dashboard

The Order Velocity Dashboard helps organizations understand how they are managing order shipments. These metrics also enable organizations identify the reasons for delay in shipments.

#### ♦ B2C Reports

The B2C reports provide information about the volume of business generated from B2C (business-to-consumer or business-to-customer) orders.

#### ◆ B2B Reports

The B2B reports provide information about the volume of business generated from B2B (business-to-business) orders.

#### ♦ Miscellaneous Reports

In Sterling Business Intelligence, apart from the B2B and the B2C reports, you can also view the following reports:

- Top Customers Reports
- Top Lifetime Customers Reports

Users can further leverage these reports by using the following attributes to get micro level information pertaining to their business:

#### ♦ Time Period

The time dimension reflects the changes in a metric during different time periods in a year. All the metrics in the Sterling Business Intelligence solution are associated with a time period.

#### ◆ Drill Through

The Sterling Business Intelligence solution allows you to drill through the reports and dashboards and view the details at the next level.

#### ♦ Drill Down and Drill Up

The Sterling Business Intelligence solution allows you to drill down and drill up the reports and dashboards. A drill down report allows you to drill-down to a lower level of hierarchy, and a drill up report allows you to drill-up to a higher level of hierarchy.

For more details about these reports, refer to the Sterling Business Intelligence User Guide.

For a description of the various documents in the Sterling Business Intelligence documentation set, refer to the Sterling Business Intelligence Documentation Online Library at:

http://www.sterlingcommerce.com/Documentation/MCSF85/BIAnalyticsHome.htm

## **Known Issues**

You may encounter the following known issues when using Sterling Business Intelligence. Some of the defects listed in this topic will be addressed in future 8.5 maintenance pack releases. To determine if a defect has been addressed in a maintenance pack, review the Hot Fix Release Notes that accompany the maintenance pack.

## **Sterling Business Intelligence Issues**

**187068**: When you generate a report, the error "The requested session doesn't exist" is displayed at times.

**Solution/Workaround**: This issue occurs when a session has expired, and you log in to the application using the same browser window. Close the browser window in which the session has expired, and log in again using a new browser window.

**202686**: If you intend to implement a Data Mart, do not run the Order Release Status Purge agent before seeding the Data Mart, as some orders may not make it to the Data Mart and a few metrics could be calculated incorrectly.

**Solution/Workaround:** Seed the Data Mart before running Order Release Status Purge.

**202357**: The application incorrectly inserts the change records for orders of an enterprise into the YFS ORDER TS TAG table of the DEFAULT colony instead of the respective colony of the enterprise.

Solution/Workaround: None.

**203194**: Load management is stalled when the number of records in the YFS\_ORDER\_TS\_TAG table is very high (hundreds of thousands).

**Solution/Workaround**: Create an index in the YFS\_ORDER\_TS\_TAG table for the fields ORDER\_HEADER\_KEY and ETL\_TS.

**203198**: When accessing the dashboards, a full table scan may occur on the SO\_LINE\_MEASURES, SO\_MODIFICATION\_MEASURES, and SHIPMENT\_LINE\_MEASURES tables in the data mart. This will lead to slow response time when the number of records is very high (hundreds of thousands).

**Solution/Workaround**: You must add the following indexes to improve report performance.

Table Name	Index on Column
SO_LINE_MEASURES	PROMISED_SHIP_DATE_ALL_TIME_
SO_LINE_MEASURES	CONFIRMED_DATE_ALL_TIME_SID
SO_LINE_MEASURES	ACTUAL_SHIP_DATESO_LINE_ALL_
SO_LINE	SALES_ORDER_IDENTIFIER
SO_MODIFICATION	SALES_ORDER_IDENTIFIER
SO_MODIFICATION_MEASURES	CONFIRMED_DATE_ALL_TIME_SID
SHIPMENT_LINE_MEASURES	ACTUAL_SHIP_DATESHIPMENT_LIN
SHIPMENT_LINE_MEASURES	EXPECTED_SHIPMENT_DATE_ALL_T
SHIPMENT_LINE	SHIPMENT_IDENTIFIER

**202421:** The SO Modification Fact table contains many records with blank modification type code that is not used by the application. Since we do not purge the data in the data mart, the table size is expected to grow over a period of time. This is likely to impact report performance when the number of such records is very high (hundreds of thousands).

#### Solution/Workaround: None.

**202749**: When multiple colonies are configured, records for some of the colonies in the YFS\_ORDER\_AUDIT\_LEVEL table are not loaded into the staging database. Because of this, the SO Modification Fact table does not contain the data pertaining to this colony.

Solution/Workaround: None.

## **Cognos-Dependent Issues**

The known issues that are dependent on Cognos and the solutions or workarounds, if any, are listed here. Enhancement requests have been logged with Cognos regarding these issues. These issues will be resolved when Cognos incorporates the enhancement requests.

**185158**: If you are using a Firefox Web browser and you try to access the drill-through reports from the dashboards, a Javascript error is thrown (Cognos Defect Number: 597387).

**Solution/Workaround**: Right-click the dashboard widget and select **Related Links**. A window listing all the drill-through reports is displayed. Select the corresponding drill-through report.

**188724**: If the number of categories in a pie chart exceeds four, the legend is not displayed completely (Cognos Defect Number: 622354).

**Solution/Workaround**: Details of the Category can be obtained from Tool tip.

**195687**: Executing ETL Scripts using Adaptive Warehouse Runtime on Solaris throws error (Cognos Defect Number: PMR 70627 999 744).

Solution/Workaround: Add the following content in the

<AAF\_Instal\_DIR>\ap\configuration\aaf.ini file:

<Section Name="DebugInfo"> <PackagePersistence>true</PackagePersistence>
</Section>.

**196670**: The scripts generated from the Adaptive Warehouse Studio Framework cannot be reused because the To date in the scripts for the CDC filter is not being updated to the current date after the script is run. Therefore, the consecutive ETL runs from the same scripts will fail to pull the data created in the source after the first ETL run (Cognos Defect Number: 622556.1).

This happens only in the Adaptive Warehouse Runtime, and not in the Load Management in the Adaptive Analytics Studio Framework.

**Solution/Workaround**: None.

**200705**: A user is unable to create an Adaptive Analytics project on an Oracle 11g database (Cognos Defect Number: APAR PK89050).

Solution/Workaround: None.

**202876**: When the Sterling Data Source project is imported, the Parent-Child Hierarchy transformation attributes are not being loaded. Because of this, the hierarchical data is not being loaded for dimensions that contain the Parent-Child Hierarchy transformation attributes (Cognos Defect Number: SR 11-107151341).

Solution/Workaround: None.

**185328**: When a CDC filter is applied on a Fact, and the Load Management is executed, the To Value of the CDC filter in the user interface of the Load Management is set to the end of the previous run of the Load Management, and not the current time. Because of this, the Load Management does not extract any records.

The Load Management functions correctly only if the To Value is manually updated (Cognos Defect Number: 622556).

**Solution/Workaround**: None.

#### **Documentation Issues**

**208152**: The security vulnerability issue with respect to the Online Help must be resolved.

**Solution/Workaround**: Install 8.5-HF2 or later to fix the security vulnerability issue with respect to the Online Help.

## **Hot Fix Requirement**

For Sterling Business Intelligence, Release 8.5, the minimum hot fix required is HF1.