

IBM Sterling Business Intelligence

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Agenda

- Day 1:
 - Overview of SBI
 - Architecture of SBI
 - Introduction to AAF
- Day 2:
 - Deep Dive into AAF
 - Understanding the OOB model
 - Overview of Reports
- Day 3:
 - Introduction to ETL
 - Staging ETL & Datamanager
 - Load Management in AW
 - Customization of SBI

Business Intelligence

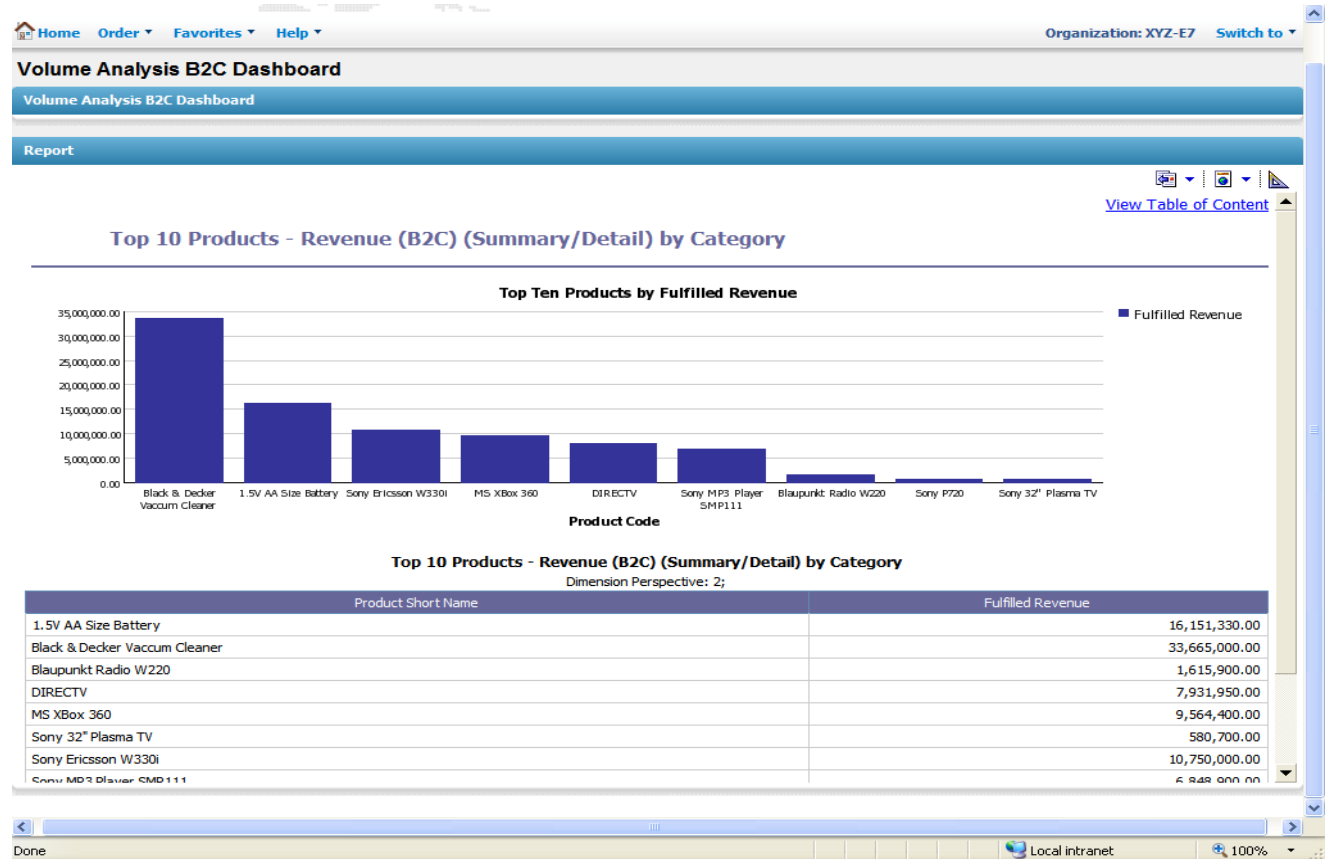
Business Intelligence is the capability to gather, store and analyze data , thereby helping users make intelligent and informed decisions about running their business.

Intelligence ON the Process

“I need to know the Top Ten products by revenue within a product category for the year till date .”



Business User

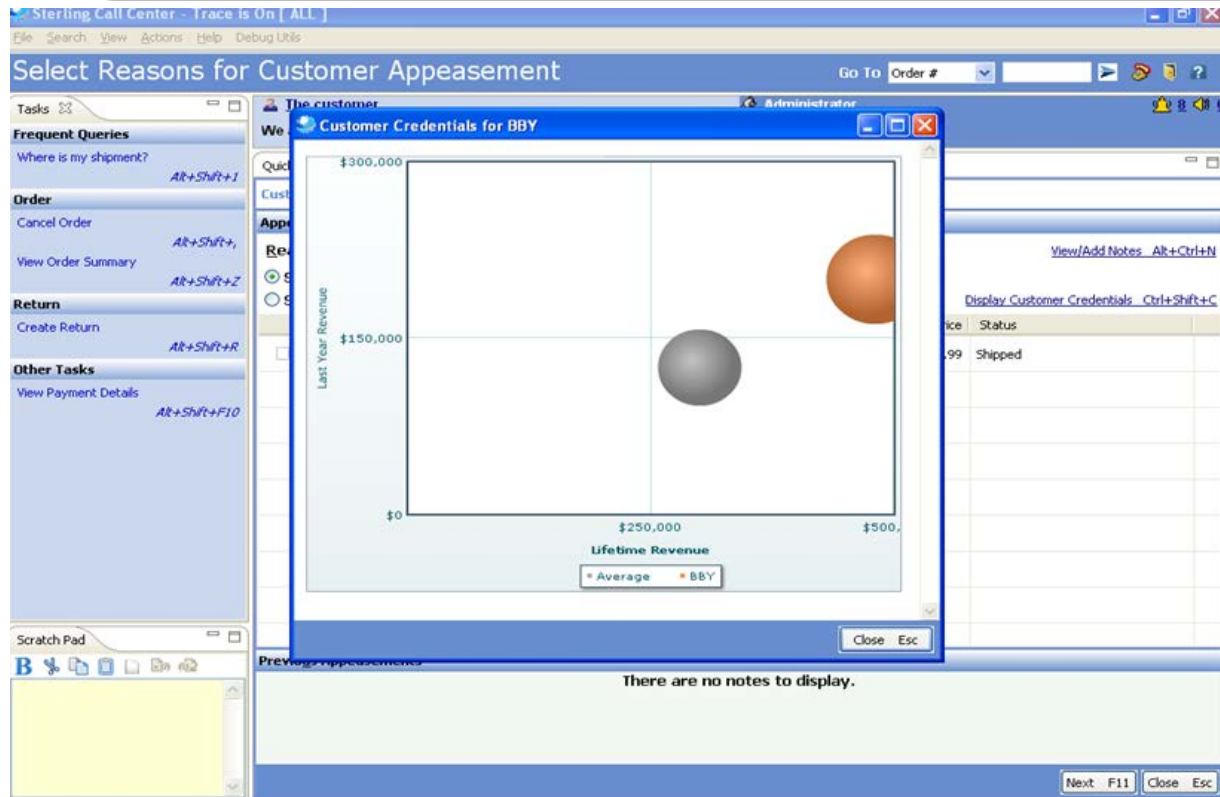


Intelligence IN the Process

“I need to decide the appeasement that can be provided to a customer based on customer’s credentials .”



Call Center
Representative



Intelligence DRIVING the Process

“Field Sales Person should be able to provide discount of up to 15% to High rating customers without needing approval.”



Pricing Administrator

Primary Information - Customer Rating

Approval Rule Type: Line

Effective Start Date: * 05/01/2012

Effective End Date: * 05/31/2012

Message Code:

Message:

Approval is not required if this rule is applied

Status: ACTIVE [Deactivate](#) [Delete](#)

Conditions

[Group](#) [Un Group](#) [Not](#) [Remove Condition](#) [Move Up](#) [Move Down](#)

(Use Ctrl/Command key for selecting multiple conditions)

Customer Rating is HIGH

AND Manual Discount(%) for line less than or equals 15.0000

[+ Add a condition](#)

Sterling Business Intelligence Overview

- Provides dimensionally modeled datamarts built using Cognos AAF to answer analytical queries
 - For e.g. Which were the top ten product categories during last year based on Revenue
 - Currently provides Order, Quotes and Returns datamarts
- Provides pre-built Dashboards and Reports
 - For e.g. Perfect Order Dashboard, Volume Analysis Dashboard
 - Web-UI based delivery of Dashboards and Reports
 - Also provides Ad-hoc querying capability
- Provides embedded analytics
 - For e.g. Customer Appeasement, Discount Advisor
 - Integrates with Sterling Field Sales and Sterling Call Center
- Metadata driven approach for building the datawarehouse and the reports
 - Easily Configurable, Customizable, Extensible and Maintainable
- Integrates with IBM Sterling Selling and Fulfillment Suite
- Web-UI based delivery of Dashboards & Reports
 - Handles Organization Hierarchy
 - Provides Saved Search

Sterling Business Intelligence v/s Sterling Business Intelligence (Operational Reports)

- SBI Operational Reports
 - Provides a set of sample Operational Reports
 - Provides a sample Framework manager Model
 - Driven out of OLTP DB
 - Real time data
- SBI
 - Provides a set of canned Reports and Dashboards
 - Provides dimensionally modeled datamarts built using Cognos AAF
 - Reports driven out of the datamart
 - Data current till the last ETL

SBI Content

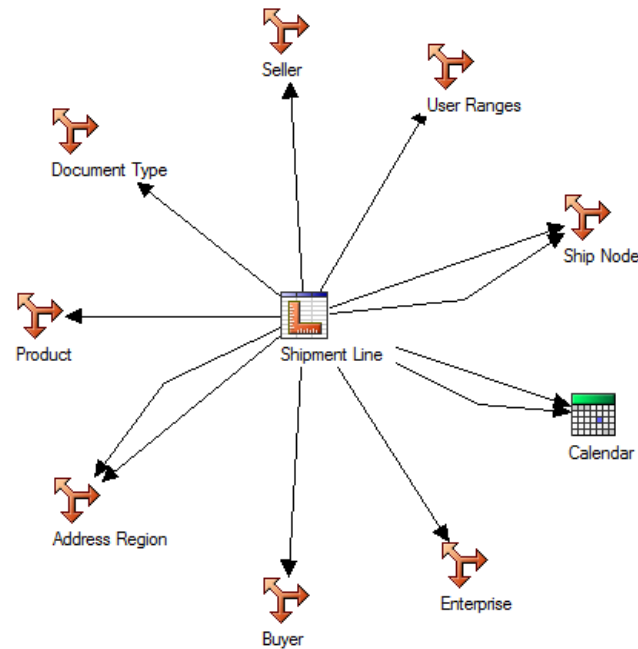
- SBI Application (Deployed with SSFS EAR)
 - WUF (ExtJS) based web application
 - Time stamp tagging component (Including purge agents)
 - APIs to support Web UI (entityLookup API)
 - Staging package Generator

- SBI Analytics (Cognos) Content
 - Adaptive Warehouse Model
 - Adaptive Analytics Model
 - Report Studio Reports
 - ETL Scripts

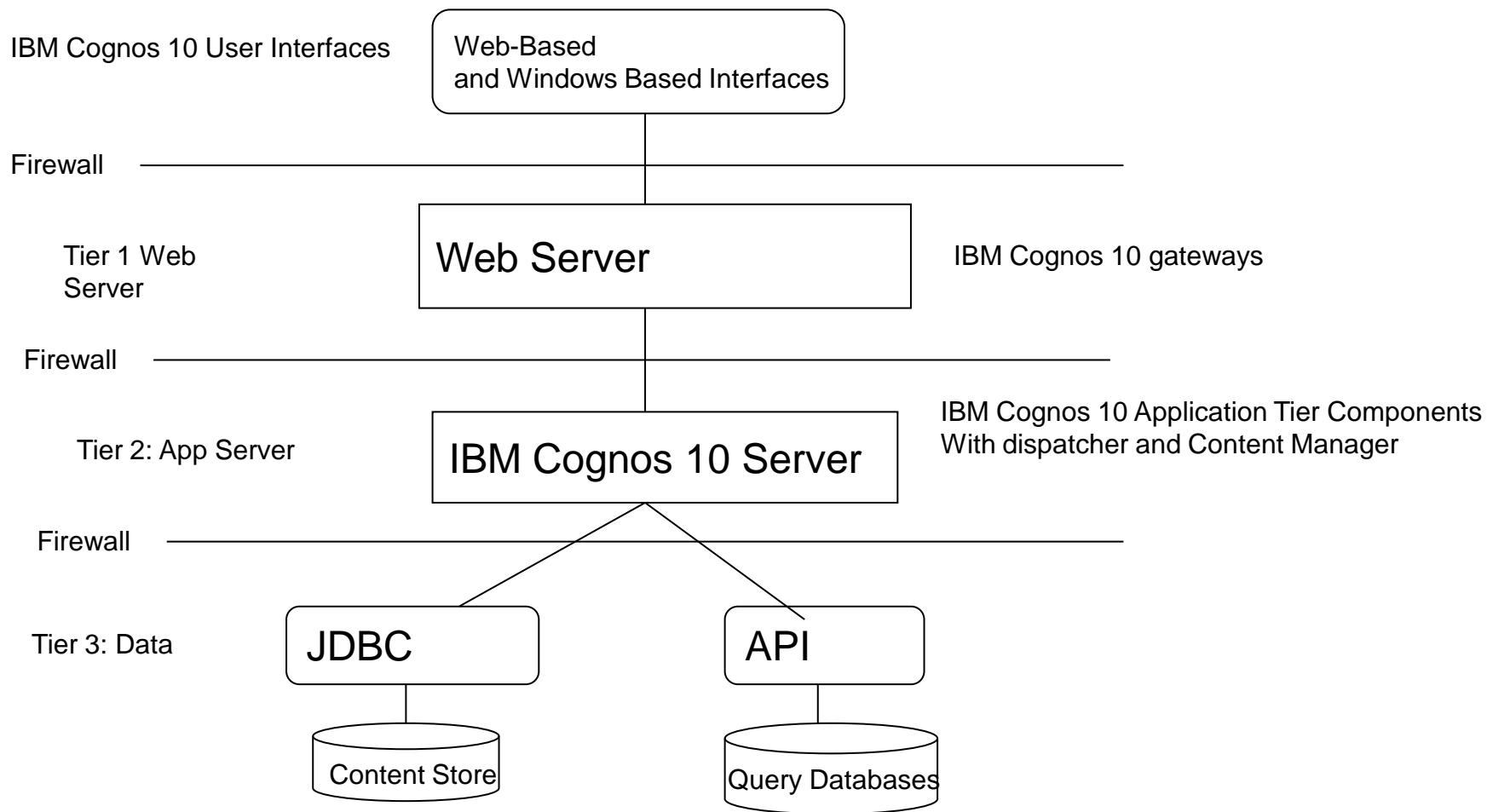
Design Principles of SBI

- Datamart
 - Similar to Datawarehouse, but limited to a business process
- Dimensional Modeling
 - Denormalizing the data
 - Star Schema
 - Facts
 - Dimensions
- ETL
 - Extract, Transform, Load
 - Loads data into datamart
 - Initial
 - Incremental

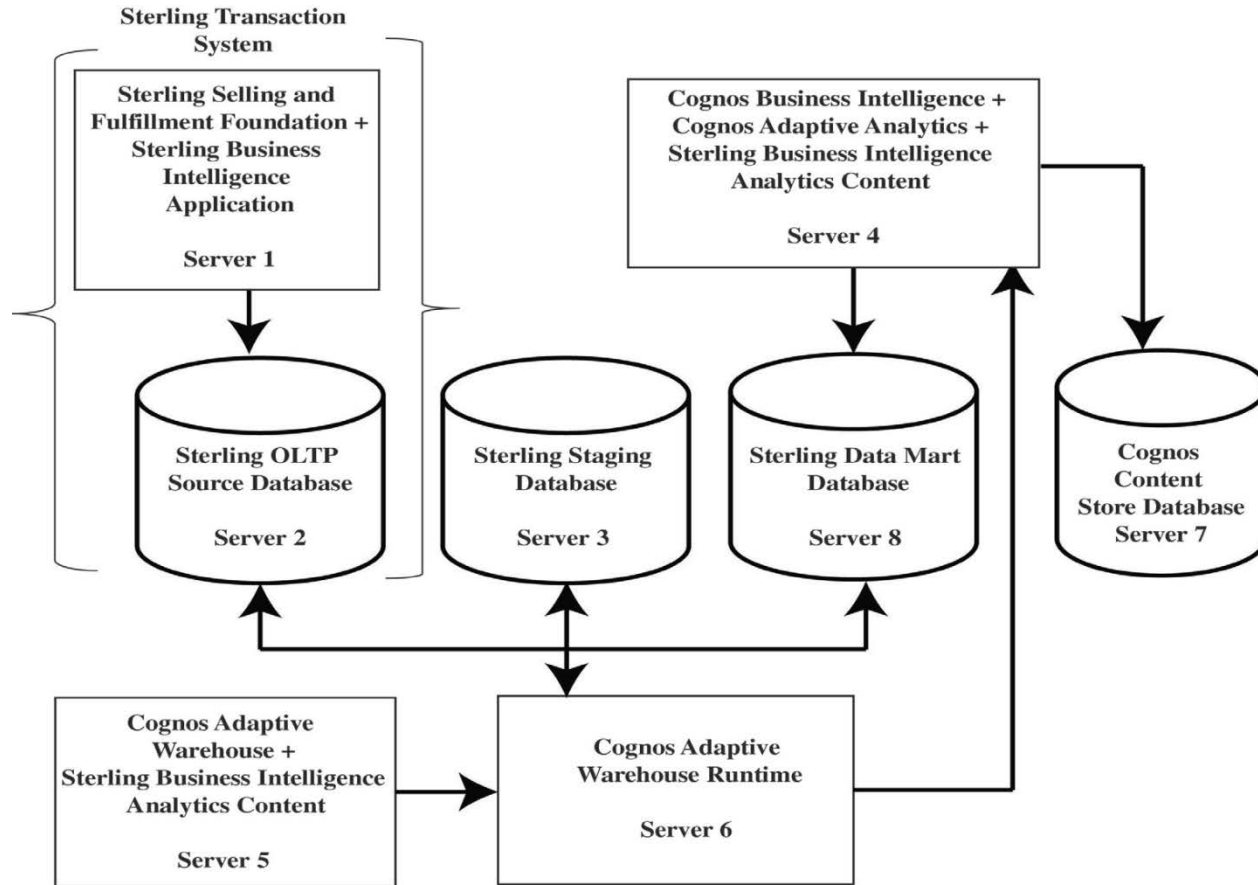
Shipment Line



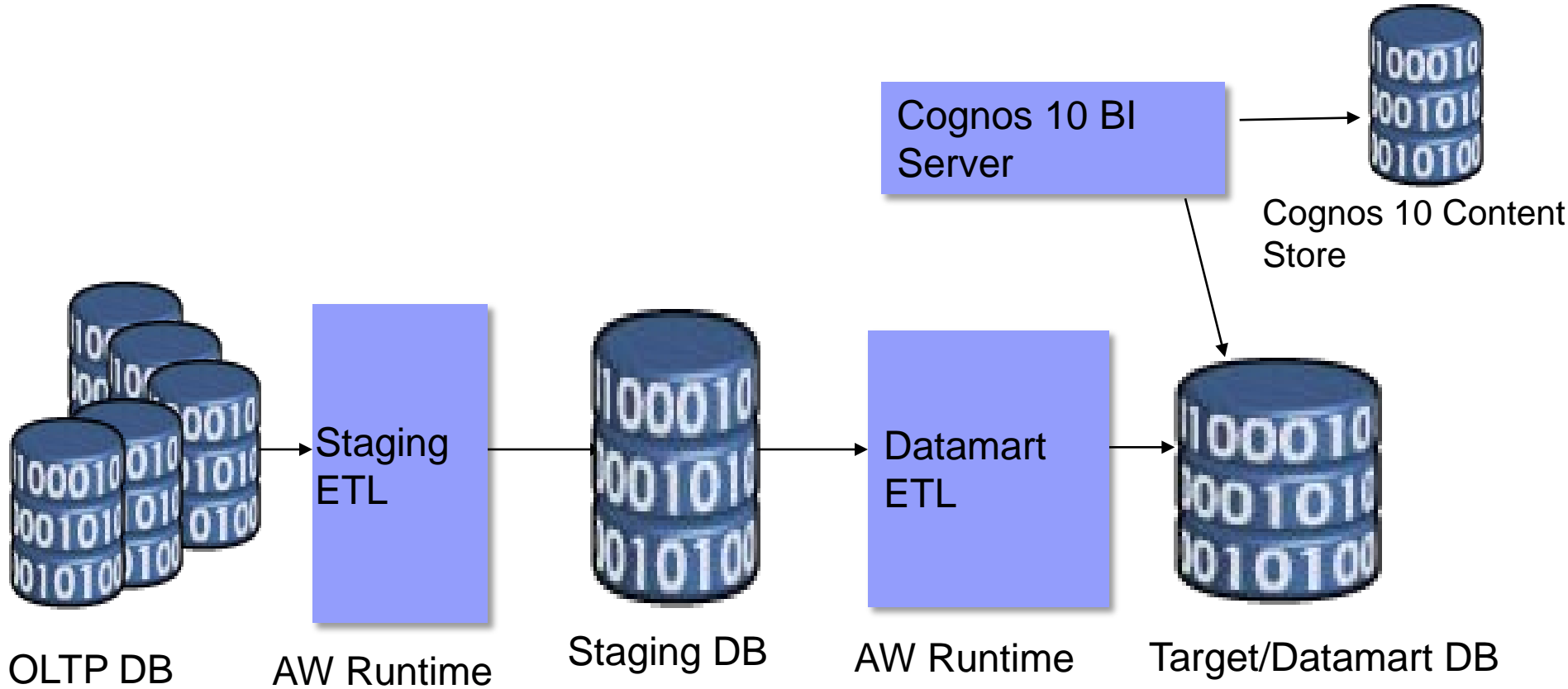
Cognos 10 BI Architecture



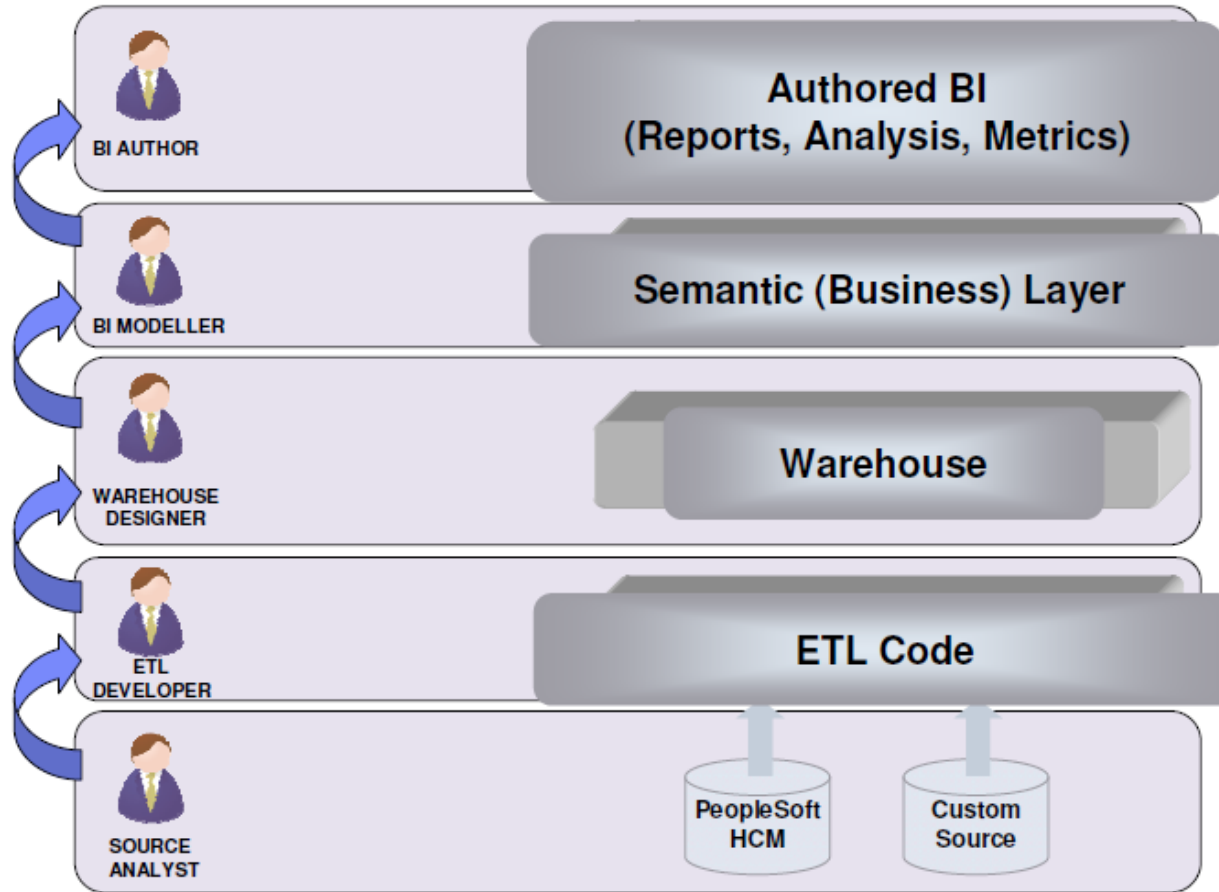
SBI Deployment



SBI Architecture

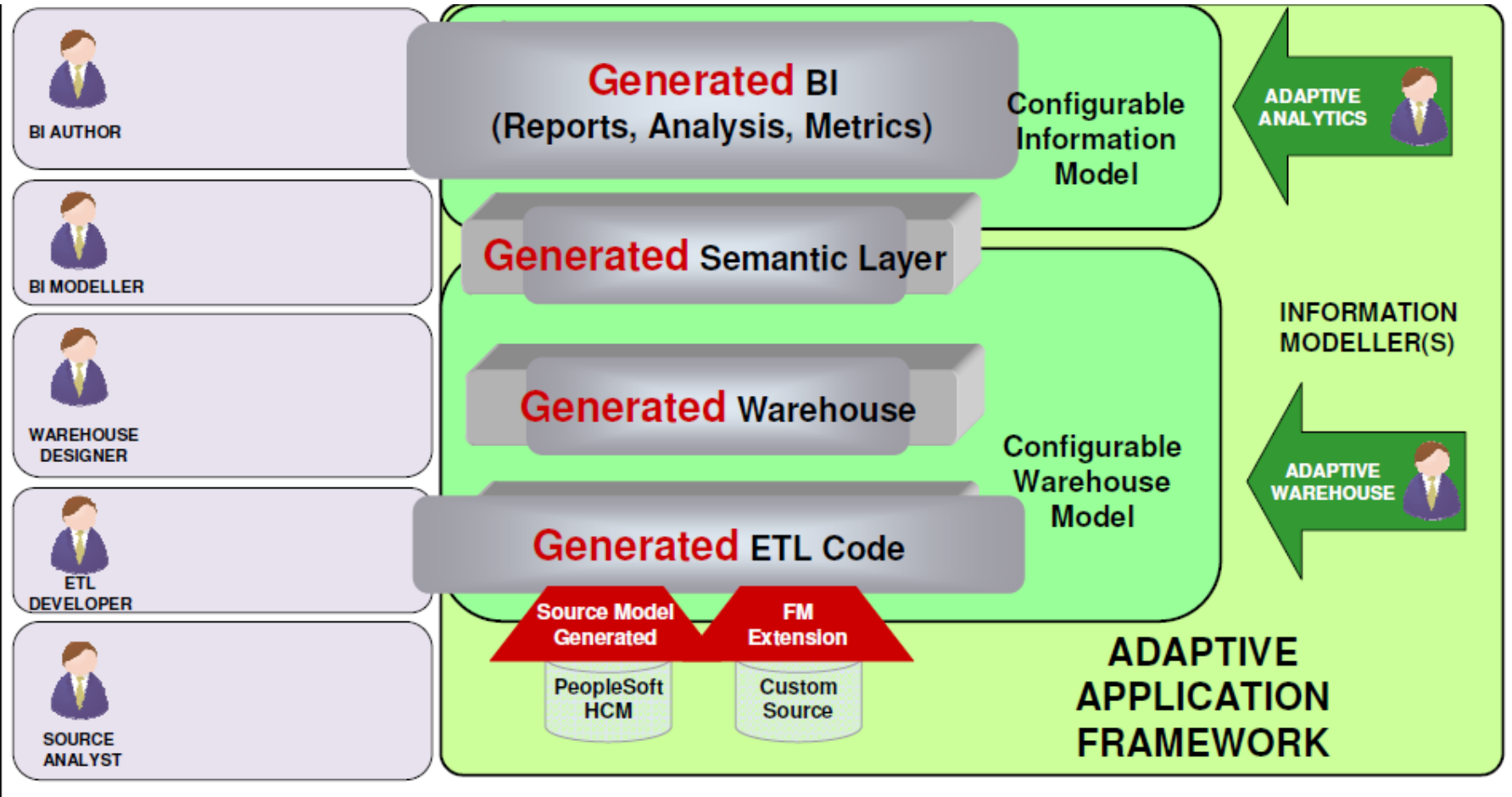


Traditional BI Approach



* - This slide is obtained from COGNOS training material

AAF Approach



* - This slide is obtained from COGNOS training material

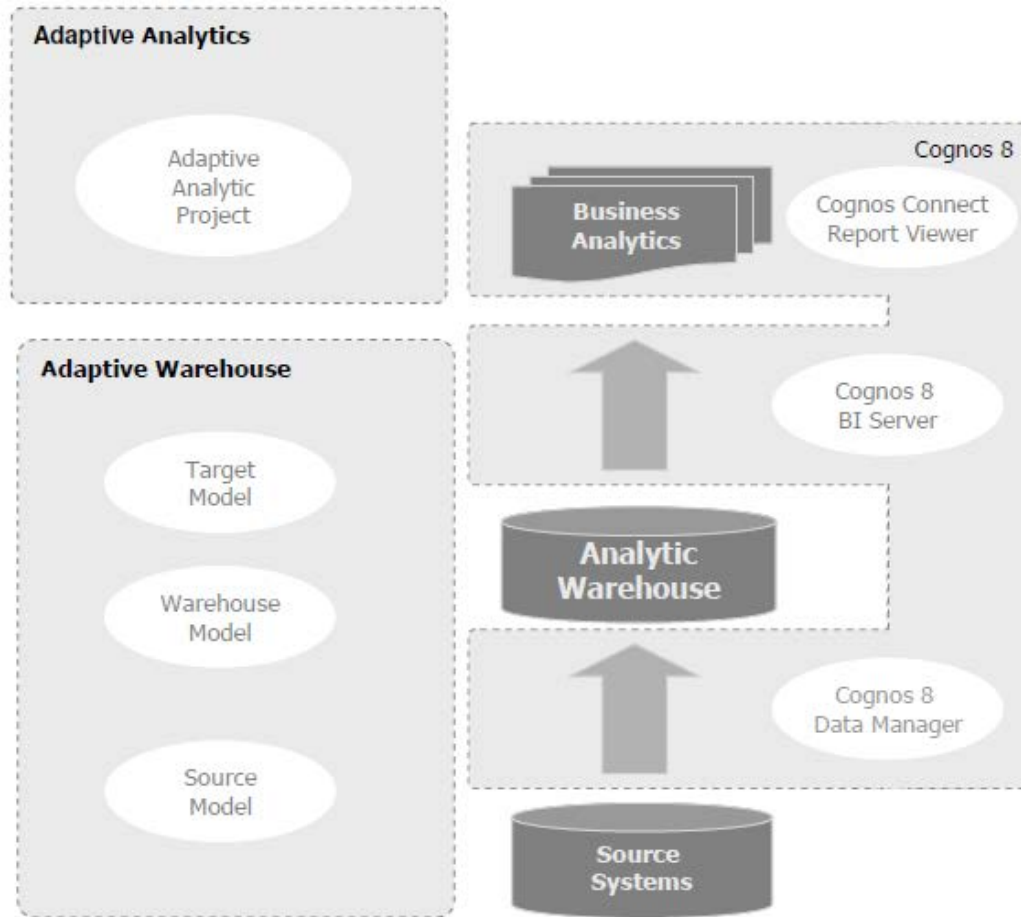
Key Benefits of AAF

- CONFIGURABLE and CUSTOMIZABLE
 - Adaptable to client environment
 - Install what's required and ignore the rest

- EXTENSIBLE
 - Easy to extend the warehouse objects and target model

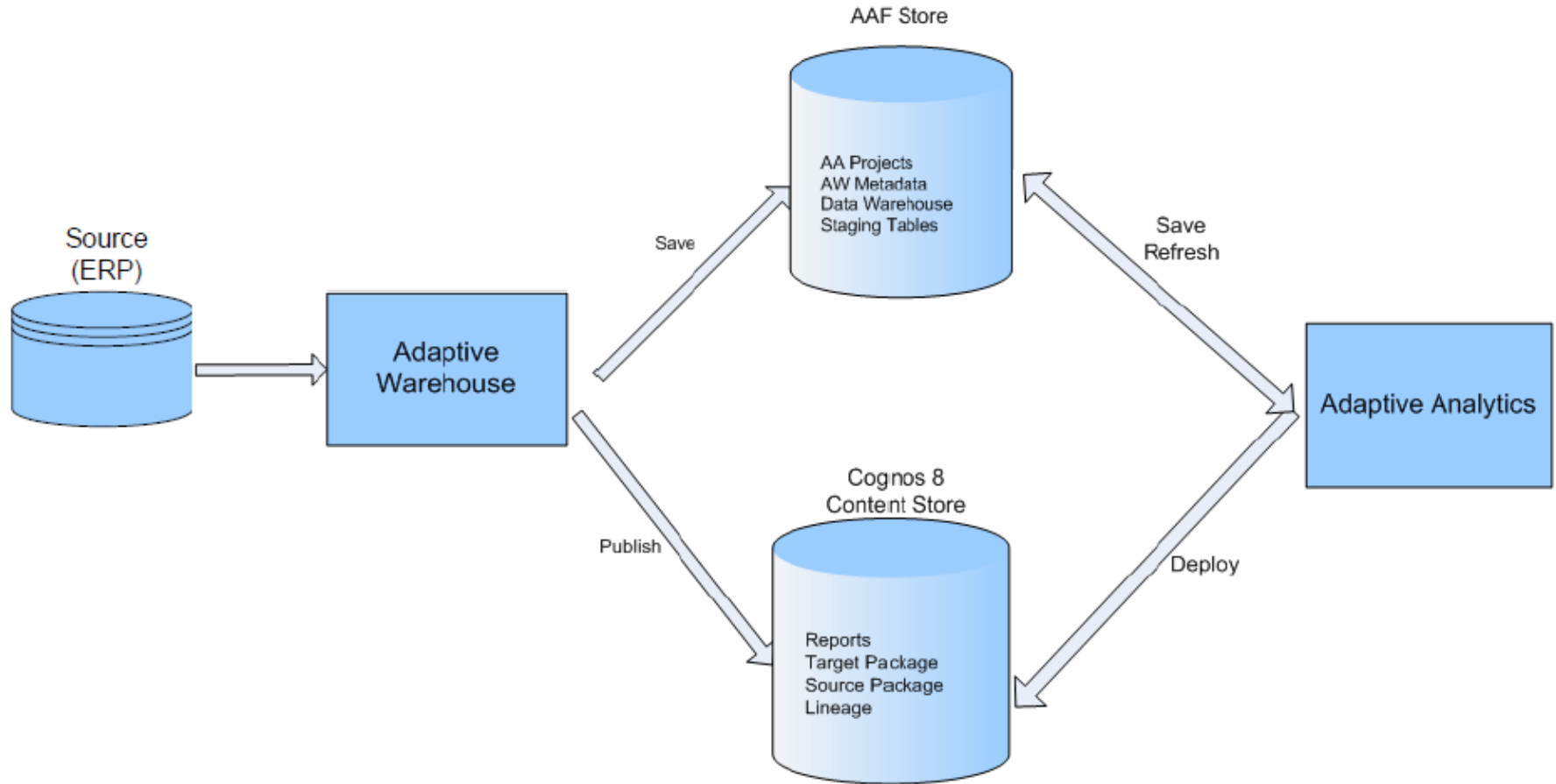
- MAINTAINABLE
 - Auto-generation of source and target models
 - Load management handles loading of warehouse database
 - Adaptive Analytics helps building reports quickly and easily

AAF Components



* - This slide is obtained from COGNOS training material

AAF Workflow*



* - This slide is obtained from COGNOS training material

Adaptive Warehouse

- Warehouse Objects
 - Fact
 - Dimension
 - Calendar Dimension
 - Custom Calendar
 - Materialized Views
- Warehouse Object Item Types
 - Business Key
 - Fact
 - Attribute
- Warehouse Dataflow
 - Input Source
 - Transformations
 - Lookups

Adaptive Warehouse Contd..

- Input Sources
 - Multiple Input Sources
 - Merge based on Business Key (last Non-Null value)
- Transformations
 - Column to Row Pivot
 - Row to Column Pivot
 - Parent-Child Hierarchy
 - Filters
- Lookup
 - Key-Value Mapping

Adaptive Warehouse Contd..

- Linking Facts to dimensions
 - Adding References
 - Defining Role plays
 - Calendar Dimension
- Snowflake Dimensions
- Degenerative Dimensions
 - Ideally, only measures and dimension references will be written to the fact, all other items will be stored in the degenerative dimension.

Data Load (ETL)

■ Initial Load

- Backup of Database
- Initial Data Load – One Time Load. Includes History data.
 - Configuration
 - Master
 - Transaction
- Configuring Load Parameters
 - CDC
 - Load Interval

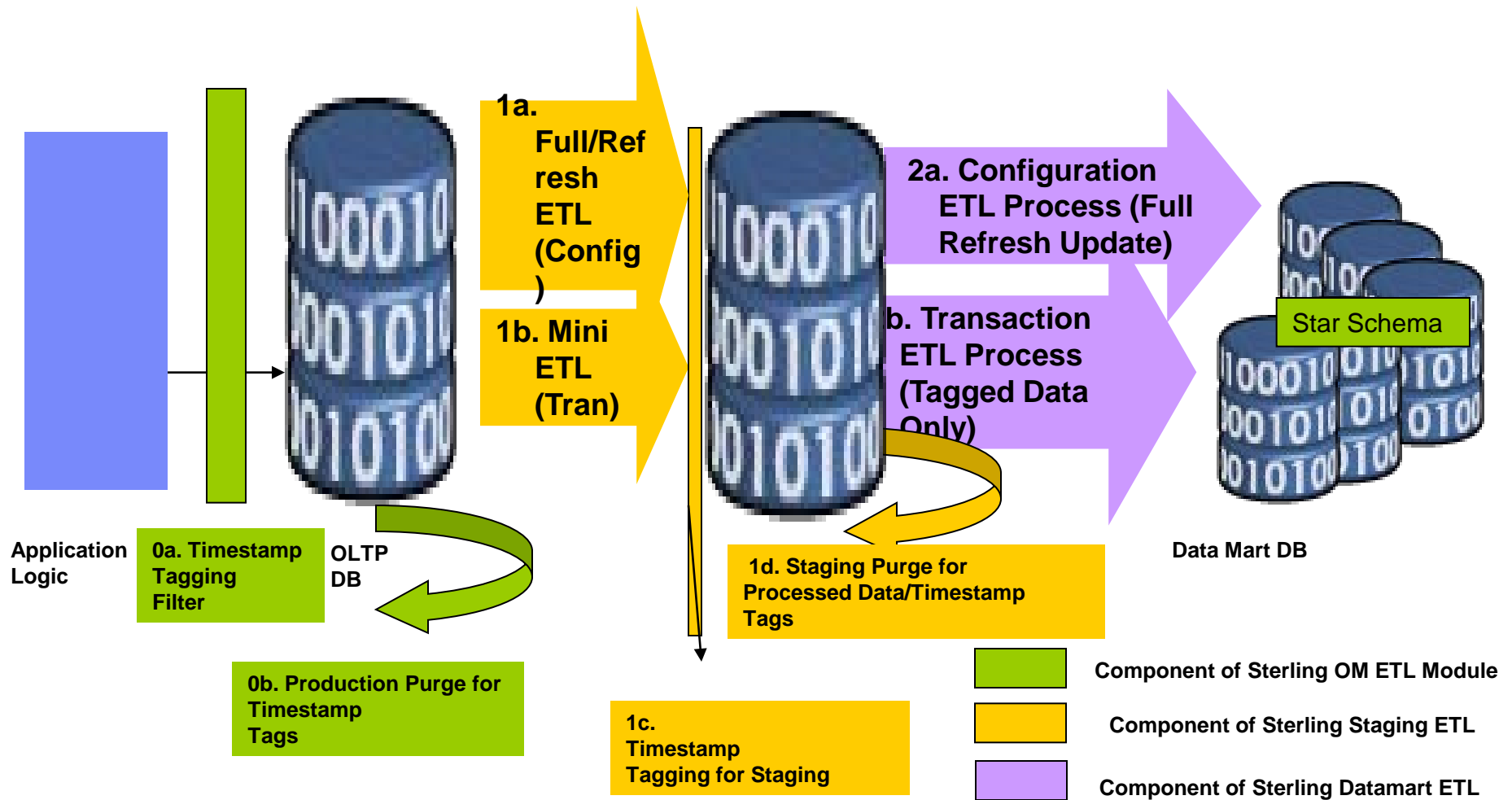
■ Incremental Load

- Scheduled at regular intervals
- Uses Timestamp based CDC
- Configuration/ Master data is refreshed at periodic intervals (Once a week)

Data Load (Contd..)

- Staging Database
 - Motivation for Staging
 - Records being missed
 - Performance Considerations on OLTP
 - Multi-Schema Considerations
 - Design
 - Separate Staging Database
 - Use Driver Tables for CDC

Dataflow for Incremental Load within SBI



SBI Demo

BACKUP

Home

Dashboards

- Perfect Order Dashboard
- Volume Analysis B2B Dashboard
- Node Performance Dashboard
- Volume Analysis B2C Dashboard
- Order Velocity Dashboard

Reports

- Fulfilled Revenue B2C By Week Report
- Fulfilled Revenue B2C By Year Report
- Top 10 B2C Products By Revenue
- Fulfilled Revenue B2B By Week Report
- Fulfilled Revenue B2B By Year Report
- Top 10 B2B Products By Revenue
- Top Partners Report
- Booked Value B2C By Week Report
- Booked Value B2C By Year Report
- Top 10 B2C Products By Quantity
- Booked Value B2B By Week Report
- Booked Value B2B By Year Report
- Top 10 B2B Products By Quantity
- Top Lifetime Partners Report

Recently Viewed

- Order Velocity Dashboard
- Volume Analysis B2C Dashboard
- Volume Analysis B2B Dashboard
- Perfect Order Dashboard
- Node Performance Dashboard

Favorites

- Pft_LastYear

Sterling Business Intelligence Welcome Administrator [Sign out] Sterling Commerce

Home Order Favorites Help Organization: Hub Organization Switch to

Home

Dashboards

- Perfect Order Dashboard
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- Order Velocity Dashboard

Reports

- Fulfilled Revenue B2C By Week Report
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- Top 10 B2C Products By Revenue
- Fulfilled Revenue B2B By Week Report
- Fulfilled Revenue B2B By Year Report
- Top 10 B2B Products By Revenue
- Top Partners Report
- Booked Value B2C E
- Booked Value B2C E
- Top 10 B2C Product
- Booked Value B2B E
- Booked Value B2B E
- Top 10 B2B Product
- Top Lifetime Partner

Recently Viewed

- Order Velocity Dashboard
- Volume Analysis B2C Dashboard
- Volume Analysis B2B Dashboard
- Perfect Order Dashboard
- Node Performance Dashboard

Favorites

- PII_LastYear

- XYZ Corporation
- XYZ-E1
- XYZ-E10
- XYZ-E11
- XYZ-E2
- XYZ-E3
- XYZ-E31
- XYZ-E33
- XYZ-E36
- XYZ-E4
- XYZ-E5
- XYZ-E6
- XYZ-E7
- XYZ-E8
- XYZ-E9
- XYZ Online

Sterling Business Intelligence

Welcome Administrator [Sign out] Sterling Commerce

Home Order Favorites Help

Organization: XYZ Corporation Switch to

Perfect Order Dashboard

Perfect Order Dashboard

Saved Searches

Time Period *

- Current Quarter
- Current Week
- Current Year
- Last Week
- Last Year

Generate Report

Done

Local intranet

100%

Perfect Order Dashboard

Sterling Business Intelligence

Organization: XYZ-E11

Home Order Favorites Help

Organization: XYZ-E11 Switch to

Perfect Order Dashboard

Perfect Order Dashboard

Report

Opportunity to Capture



Average Expectation Lead Time for ASAP Orders *4 days 4 hours*

Capture to Fulfillment - Shipped on Time



Drill Through Available on Chart

Capture to Fulfillment - Back Ordered

% Inventory Exception Delays



Drill Through Available on Chart

Completion to Settlement

% Authorization Failure



% Settlement Failure



Capture to Fulfillment - Other Metrics

Average Delay for Delayed Orders *3 days 19 hours 40 minutes*
Average Capture to Shipment Time for ASAP *1 day 13 hours 21*

Done

Local intranet

100%