Teradata Supply Chain Accelerator, for SAP

Good planning is critical for every business, but it's especially important for companies in manufacturing and fast moving consumer goods (FMCG) industries, where profit margins are impacted by inventory management, supply and demand planning, and the reliability of sales forecasts.

Savvy businesses rely heavily on demand planning (DP) systems to gain a clear view into everything from product level demand, sales trends, customer service level issues, and future forecasts. This helps answer such critical business questions as:

> Which products at specific retailers will be out of stock today, tomorrow, or next week?

> Which new products sold best last month or last week?

> How do changing consumer demand patterns differ by region, during promotions, and by season?

Unfortunately, many advanced planning systems run once per month or in some cases once per week. They often draw from high-level summaries rather than detailed, granular downstream data. As a result, historical reports and future forecasts are often out of date and inaccurate. In fact, studies have shown that a typical forecast is off by as much as 35%.

For companies using the SAP® Advanced Planner and Optimizer (SAP APO) module of the Supply Chain Management (SCM) solution, achieving a higher level of real-time decision support for demand planning processes is now possible thanks to the Teradata® Supply Chain Accelerator.

Teradata's ability to gather large volumes of atomic level data (Ex: by store, by SKU, by day/week) for integration as part of the DP process can provide SAP customers with a single view of the business, with smart aggregations or drill-downs to more detailed data sets. This capability maximizes downstream data utilization and performance within the SAP operational environment.

An enterprise data warehouse from Teradata, combined with the Teradata Supply Chain Accelerator and SAP APO demand planning can quickly prepare and transform the data for constraint planning and process the plan output.

Only with the joint Teradata & SAP solution can you now take advantage of a fully integrated Demand Driven Supply Network (DDSN). An operational demand signal repository (DSR) can enable manufacturers to realize a true integrated supply chain platform. Leveraging atomic-level SKU and location data for enhanced analytics on a daily, intra-day, or near real time basis increases the accuracy of demand and supply chain planning.

As the leader in enterprise data warehousing, Teradata is the ideal platform for DDSN; combined with the Teradata Supply Chain Accelerator and SAP APO you can deliver maximum impact with lower total cost of ownership. The total package provides SAP SCM users with greater:

Speed

By reducing wait times for forecast development and improving your SCM architecture performance, Teradata's solution enables more timely what-if analysis, scenario modeling and forecast comparisons. In addition, it identifies discrepancies as they occur, allowing decision makers to adjust the plan as necessary.

Detail

By tapping into detail-level master and transaction data stored in the EDW, the solution improves accuracy and delivers better insight into a range of planning variables. Also, utilize highly intelligent aggregations and disaggregations to alleviate performance bottlenecks in SAP APO Business Warehouse.

History

By leveraging additional years of detailed data to create accurate assumptions, the solution delivers greater insight into product lifecycle, new product introductions, and end-of-line trends as well as the impact of seasonality and promotions on sales and inventory.

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Teradata Supply Chain Accelerator, for SAP

Frequency

The joint solution enables planners to reduce the time needed to complete their planning cycles and respond faster to unexpected deviations from the plan. Allow users to move to weekly, daily or even intra-day iterations for their demand plans.

The result? Businesses that optimize their demand planning with the Teradata Supply Chain Accelerator can experience reduced inventory levels, decreased inventory obsolescence, improved customer service levels, and better order fulfillment rates. These benefits translate into significant cost reductions, improved revenue predictability, increased profit margins and up to a 50% improvement in cash-to-cash cycle days.

What is it?

The Teradata Supply Chain Accelerator is an SAP Certified, Java based tool that allows for a direct connection between APO liveCache and the Teradata Database. It is designed to simplify and improve the performance of the data transfer process between SAP SCM DP and Teradata. Combining leading technology tools such as Java, APO and Teradata allows for a more flexible and growth ready supply chain environment.

How can it help?

Technical Benefits

> Ease of system and data maintenance and support

  – Much easier to modify loads/extracts from APO liveCache

  – No APO-BW InfoCubes to maintain and support (Time & $$$)

> Single point of integration for loading APO liveCache, and for reporting and analysis from a "single view of the business"

> Improved CVC Creation process & simplification of realignment activities

> Performance improvement on loads and extracts, with more flexibility on large data volumes
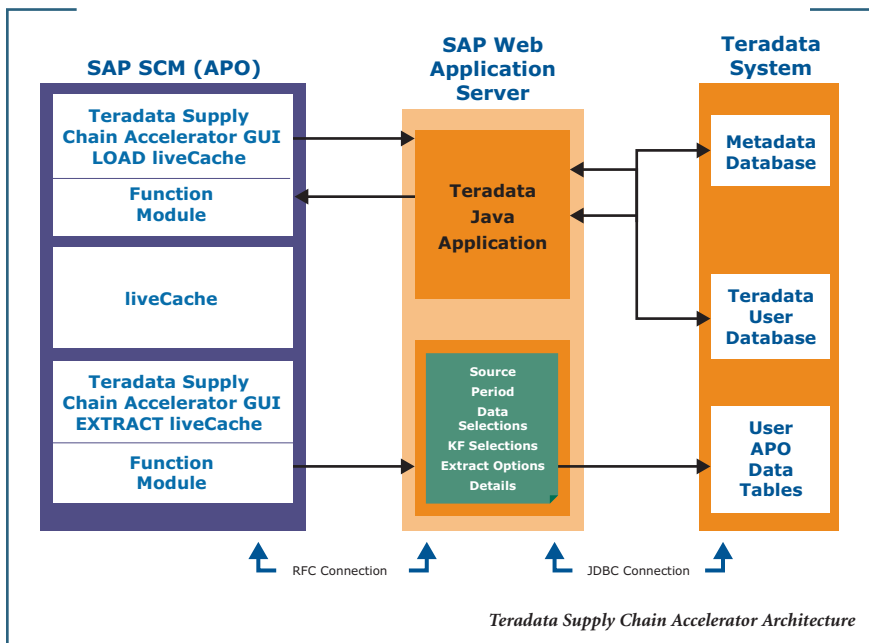
> Helps to remove batch window compromises

Large CPG Customer Implementation Benefits

Process Benefits

> Enables daily vs. weekly extracts of all forecast data

> Increased SAP APO system availability to demand planners

> Easier modifications to loads and extracts to/from SAP APO liveCache

> Greater than 50% performance improvement on extracts of all sizes

> No data volume size limitations

Technical Impact

> **Macro Calculation** – Macros which used to take 2+ hours to run as part of the batch, took 3-5 minutes in Teradata to finish. Hereby giving more flexibility for users to request for more such Macro processes to be built.

> **Realignment** – Huge Product Realignments took 1-2 days to finish in earlier BW based APO-DP systems.

SAP SCM (APO)

Teradata Supply Chain Accelerator GUI LOAD liveCache

Function Module

liveCache

Teradata Supply Chain Accelerator GUI EXTRACT liveCache

Function Module

SAP Web Application Server

Teradata Java Application

Source
Period
Data
Selections
KF Selections
Extract Options
Details

Teradata System

Metadata Database

Teradata User Database

User APO Data Tables

RFC Connection   JDBC Connection

Teradata Supply Chain Accelerator Architecture

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> **Statistical Demand Forecasting** – Teradata's Database capability enabled historical Sales orders to be aggregated at any level and together with APO-DP's univariate forecasting capability made this possible.

> **Reporting and Analytics** – Forecast and Aggregate demand synched up with the Reporting Infrastructure built on Teradata.

> **Release Demand to SNP with user control** – Forecasts at various levels were segregated and enabled to be released to SNP in a controlled and visible manner.

Business Impact

> Better forecasts, result in fewer write-off and out-of-stocks. Increased profits.

> Lower TCO for overall SAP APO planning and BI environment.

> Smarter, faster decisions into business insights that drive profitability.

An EDW can enable manufacturers to realize a single demand signal repository (DSR) to leverage atomic-level SKU and location data for enhanced analytics on a daily, intra-day or even near real-time basis, increasing the effectiveness of demand and supply chain planning.

Greater Insight, Better Planning

A good demand planning business process is foundational to producing and managing demand forecasts that minimize inventory investment while maximizing customer service levels. Teradata Supply Chain Accelerator, for SAP works in concert with mySAP™ SCM to support high volumes of detailed data using Teradata's linear scalability and parallel processing power.

The solution taps into detailed and historical data stored within an EDW to drive more accurate and frequent planning, helping mySAP SCM users maximize their investment by gaining active business intelligence about their supply chains. In addition, it gives manufacturers access to the speed, detail, history, and frequency needed to increase the overall effectiveness of demand and supply chain planning.

To learn more about Teradata Supply Chain Accelerator, for SAP, contact your Teradata representative or visit **Teradata.com**.

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