



Global Manufacturing Company

Overview

Oracle SOA Suite is a comprehensive, hot-pluggable software suite to build, deploy and manage Service-Oriented Architectures (SOA). The components of the suite benefit from common capabilities including consistent tooling, a single deployment and management tool, end-to-end security and unified metadata management. Oracle SOA Suite's hot-pluggable architecture helps businesses lower upfront costs by allowing maximum re-use of existing IT investments and assets, regardless of the environment they run in, or the technology they were built upon.

As markets, supply chains—and competition—grow increasingly global, companies need extremely flexible manufacturing and supply chain planning systems. Improving demand predictability, minimizing costs, increasing profitability and increasing customer service levels are essential elements of an optimized supply chain process. Like many other industries, manufacturers have accumulated a variety of non-interoperable systems that must share data. Standardizing the integration of these systems in an efficient, easy to replicate manner has become a strategic goal for global manufacturers.

This Global Manufacturing Company is a leading worldwide provider of filtration systems and replacement parts. With operations in 44 countries and 7 regional ERP systems, this company needed a more effective method to perform forecasting and demand planning analysis. A solution that reduced costs, simplified process and improved the timeliness and accuracy of information was essential to continued success. Leveraging the features of Oracle's SOA Suite, Zirous designed and implemented solutions that reduced costs, simplified integration, and established a foundation for future development.

Challenges

The company faced several challenges typical of a growing, dynamic, global organization. Their specific challenges included:

- Improved operational visibility
- Increasing profitability through cost minimization
- Need for improved forecast accuracy
- Improved demand predictability
- Maintaining a complicated system integration architecture

As part of the Value Chain Planning and Forecasting initiative, the company required an enterprise solution to integrate data from seven different regional JD Edwards systems located around the world to a central location in the Americas where Demantra is used to perform forecasting and demand planning analysis. Once analysis is complete, Forecast and Safety Stock data is integrated back into each of the source ERP systems. Specifically, the manufacturer needed to:

Technology

Stack:

Oracle SOA Suite 11g

Oracle Weblogic 11g



- Harvest data from multiple disparate environments
- Orchestrate a long running data synchronization requiring a mix of synchronous and asynchronous processes
- Maximize network efficiency while dealing with global bandwidth limits
- Develop a reusable pattern designed to be extended with the addition of new and emerging regions
- Create an efficient and SOX compliant code migration process to promote code and configurations throughout different environments

Solution Details

Zirous architected and implemented several solutions using the tools of the Oracle SOA Suite including Oracle SOA, Oracle Service Bus, Oracle Data Integrator (ODI), Oracle Application Integration Architecture (AIA), and Oracle Business Activity Monitoring (BAM). In one such solution, Zirous designed and implemented a set of integrations to harvest data from JD Edwards installations in regions around the globe to be processed by Oracle Value Chain Planning (VCP) Software. Zirous also helped the company develop, test and deploy several integrations using Oracle AIA toolset and methodology. In addition, Zirous organized the effort to create an Integration Center of Excellence within the company by mentoring staff on service oriented design patterns and best practices using Oracle SOA Suite and Oracle AIA.

Oracle Data Integrator - Performed ETL operations on business critical data within Oracle E-Business Suite to create flat files to be consumed in Oracle VCP.

Oracle SOA Suite - Created SOA services and processes to orchestrate ODI scenarios and file movement to and from Oracle VCP.

Oracle BAM – Developed a set of dashboards using Oracle BAM to gain visibility on in-flight data orchestrations.

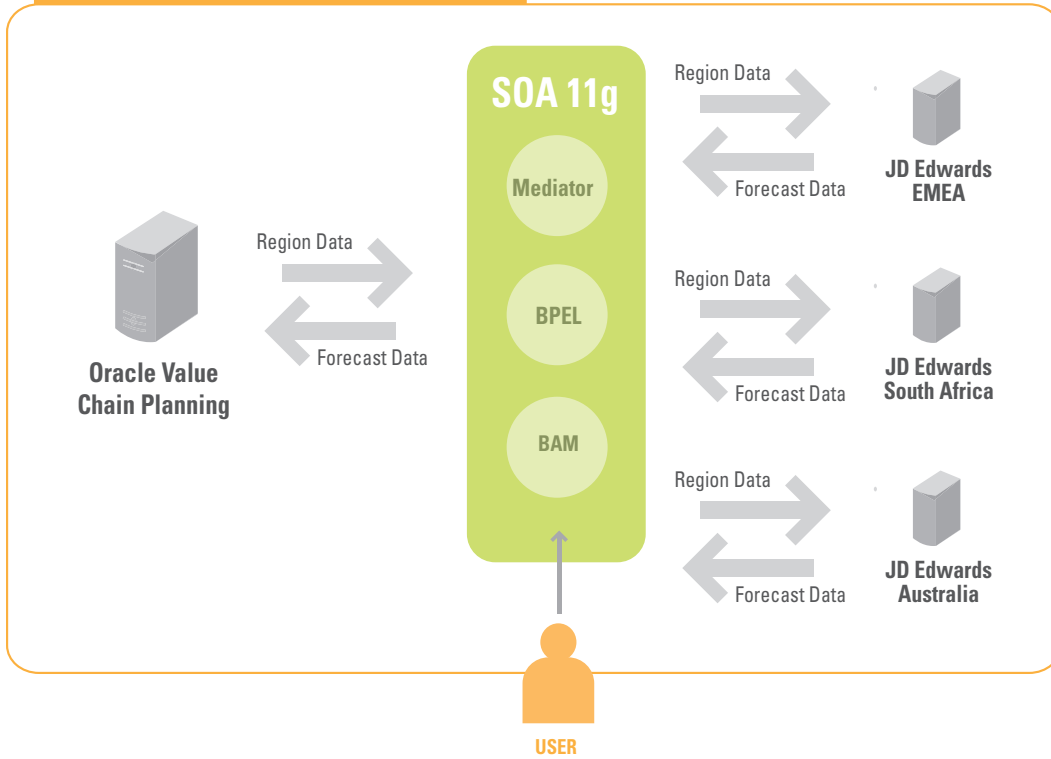
Oracle AIA – Developed cohesive integration points between 3rd party vendors, custom Java web applications and Oracle E-Business Suite.

Highlights of the solutions include:

- Developed custom integrations to orchestrate the data export from multiple global JD Edwards installations to Oracle's VCP system, as well as exporting the generated forecast data back to the regional JD Edwards installation.
- Designed all processes for maximum reusability to easily support new regions.
- Provided real time dashboards using Oracle BAM to provide business users with instant feedback on the status of the orchestrations.
- The integrations have resulted in a more complete, accurate view of enterprise activity, thus improving forecast accuracy and demand predictability.
- Created a centralized integration layer using Oracle AIA toolsets and methodologies to reduce point-to-point integrations between applications creating much simplified integration architecture.



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