



WebSphere software

**Versata Logic Suite helps IBM
speed e-business products to an
on demand world.**

Contents

- 2 Overview
- 4 Using business rules to gather complex data from myriad sources
- 4 Consolidating enterprise data to improve access and use
- 5 Addressing technical factors first to implement the best overall strategy
- 6 Turning concept into reality
- 7 Choosing a sophisticated, high-performance solution
- 7 Meeting critical demands by deploying solutions quickly
- 7 Distributing information across the enterprise
- 8 Managing development and deployment issues immediately using integrated tools
- 8 The returns
- 9 The bottom line
- 9 For more information

Overview

Challenge

To create a company-wide, reliable repository for critical product and market information to provide your employees and suppliers with the information they need to deliver products to market faster

Why on demand?

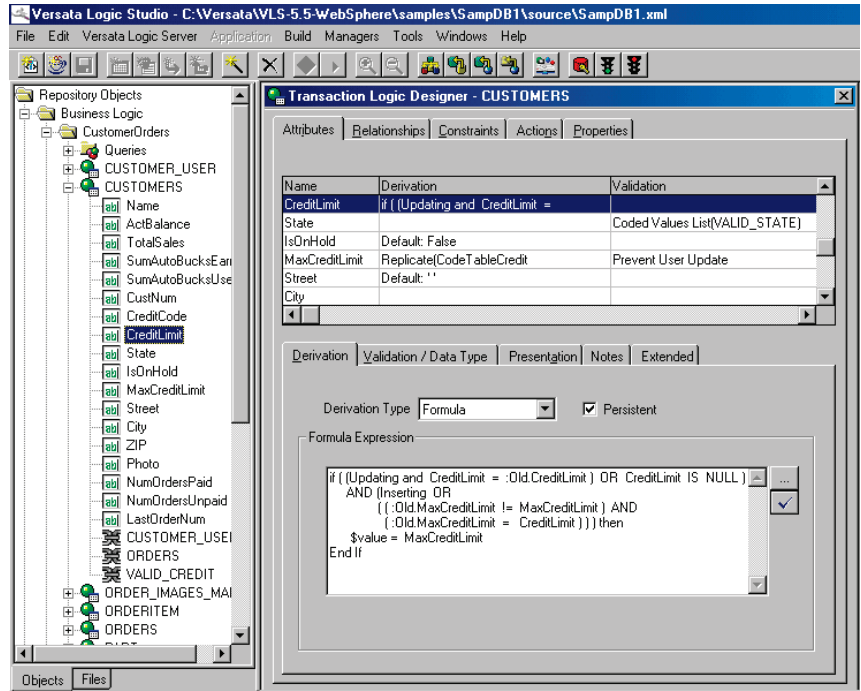
Streamlining the flow of critical product information through enterprise processes to partners, the company's sales force and customers would speed revenue-driving products to market, protect market share and reduce inventory and parts-procurement costs.

Solution

To create a master reference repository using a business-rules-based software solution integrated with IBM software to help gather and sort critical business data from distributed and disparate data stores. Build a front-end interface for product and price data to speed IBM's global product-announcement process.

Key benefits

- *Faster product development and launch cycles*
- *More trustworthy data to make better business decisions*
- *Fewer discrepancies between data types from disparate sources being distributed throughout the enterprise*
- *Faster and more reliable evolution of processes and applications*
- *More efficient skills use with less dependency on SAP systems*
- *Easier data-migration processes*
- *Greater control of information access and ownership*



Today's businesses – even global companies like IBM – face significant challenges taking a new product to market. Among them, a common concern is keeping track of the product's development state while providing people and systems with timely access to accurate product information. In larger companies – with extensive catalogs of technical products and myriad sources and consumers of information – the challenges multiply. Wisely leveraging business information to get products to market ahead of the competition is a game companies of any size want to win.

IBM initiated its reference data development program to streamline the accessibility and flow of critical product information across various IBM internal and user-facing business processes. The program scope included gathering product information, verifying that the necessary information is on hand, storing collected information in a master reference data repository and then distributing the information to designated processes.

Using business rules to gather complex data from myriad sources

Unfortunately, IBM found that gathering product information presented an immediate challenge. Product information was maintained by different development groups and resided in various, globally distributed data stores. While some of the data were held in integrated applications and systems, IBM would have to rekey other information manually – adding costly time to the project.

A second factor, information integrity, further complicated the company's plan to streamline information flow. With more than 40 downstream processes using the collected data, it had to be moved carefully to preserve its business value. For example, Enterprise SAP was traditionally the major repository for master data. When the SAP repository was populated with product information, the data would flow to other SAP modules in various organizations within IBM. SAP is used extensively by IBM, so the master data reference repository must not only feed data to SAP, it must validate that data from the SAP requirements' perspective. Similarly, i2 supply chain management software and Trilogy product configuration software were also downstream consumers of the reference data, and each of those systems placed different demands on the data coming from the master data reference repository. To account for the unique needs of the different downstream systems, IBM would have to set business rules early in a product's life cycle. Setting business rules early would help determine and direct which data should be collected from various data stores.

Consolidating enterprise data to improve access and use

Coordinating data across heterogeneous systems was a critical issue. Like the computing resources of many large companies, IBM resources were held in a mix of propriety and third-party systems. These included IBM applications and databases, as well as other environments, such as Enterprise SAP and Siebel. With little coordination between these systems, conflicting, disparate data became a factor. Discrepancies would be difficult to find and resolve. The challenge IBM faced was to provide consistent and accurate information to its systems in a way that fulfilled each system's unique data and processing requirements.

IBM had long recognized the need for a company-wide, reliable repository for critical product and market information – such as product and pricing data, and target accounts. IBM identified this data (nearly 300 data elements) as a critical subset, that would help prove the validity and usefulness of the reference data development program.

“It’s certainly not all the possible data, but the subset we’re currently supporting is the master data source that’s now in use across various IBM processes in everything from fulfillment to Web portals, and from manufacturing to marketing,” notes Charlie Thacker, IBM reference data development program director. “And all those systems tie directly or indirectly to a single data source.”

Yet the company also recognized the complexity involved in gathering and distributing the information – in terms of the actual flow of information, as well as the buy-in from the groups involved.

Addressing technical factors first to implement the best overall strategy

To implement an effective data management solution, IBM had to first make technical decisions. The company’s decisions were based on the variety and complexity of the more than 40 downstream processes and applications which use IBM product, pricing, customer, and financial information in the master data reference repository. The first step was to uncover and understand the downstream processes and applications. Then, define the data, and the respective rules to be applied to these data, going to each of the downstream processes. To do that, IBM would need a solution designed around business rules.

IBM considered commercial and internal business-rules-based solutions. Two internally developed products were initially selected. IBM e-Announce was used in product development groups to monitor and maintain product information (such as marketing messages, product description and rollout dates) during product life cycles. Used extensively within IBM, e-Announce provided the checkpoints for announcement-readiness decisions. A second solution, IBM Product Introduction Management System – used with part-number-based products – was also considered. While both solutions contained some of the desired capabilities, neither were an exact fit.

At IBM Software Labs, however, IBM was working with Versata Logic Server in the IBM WebSphere® software environment. Versata Logic Server – now available from IBM through IBM Passport Advantage – offered a rule orientation capability, and the ability to adapt quickly, which immediately appealed to the IBM team.

“The hard part is that we really don’t know what the rules are – yet. Until you understand the usage of the data, you don’t know what rules to apply. ... It doesn’t make sense to wait for the information to reach the portal to find out the data’s inconsistent, or missing ... That rule needs to be applied much earlier in the process,” Thacker explains.

While rules can be easily implemented, other issues are not so easily resolved. The data interchange between the repository and SAP and Siebel systems is an example.

“In a Siebel system, a customer address is 200 characters long. In SAP, an address is two lines of 35 characters each. These kinds of discrepancies make it extremely difficult not only to apply business rules, but also to move data freely through our envisioned system.” Thacker says.

Turning concept into reality

Developing the blueprint for a master reference repository was one thing; making it work was quite another. When IBM established the customer value relationship model (CVRM), it was time to test the master reference repository concept.

CVRM is a discretionary program that allows each country – such as IBM United Kingdom Limited – participating in an IBM product announcement to offer specially configured subsets of a previously announced master configuration – without going through a full announcement process. Large companies could additionally take advantage of these “configured to order” systems through designated Web sites.

While the complete announcement process was waived on these special configurations, the preparation efforts were still significant. A group in Vienna, for example, provided a single point of control and subject-matter experts. These individuals supplied the product material needed by the fulfillment and other production processes.

Choosing a sophisticated, high-performance solution

To leverage existing technology, IBM hoped to modify an internal information management system to use CVRM. One of the potential solutions wasn't extensible enough to support the kind of complex, transactional validation the company needed. The other IBM system lacked reliable performance – a characteristic that could not be tolerated in the high-visibility CVRM environment. By contrast, Versata Logic Server could validate the information entered by the subject-matter experts and maintain smooth information flow to all the downstream processes. As a result, IBM chose Versata Logic Server as the front-end user interface for the product and price data used by CVRM.

The development team consisted of an interface designer with PowerBuilder experience, and two Java™ technology, Web and WebSphere software programming experts. None had experience with business rules or Versata Logic Server. Subject matter experts – including several with extensive SAP experience – assisted the development team.

Meeting critical demands by deploying solutions quickly

The switch to the Versata Logic Server represented a major change of direction from the original plan to use the IBM PIMS system. But there was no relief on the development schedule because the launch of CVRM was too critical to delay. After training, the development team went directly to task. Four months later, the CVRM system went into production.

Distributing information across the enterprise

Figure 1 depicts the IBM architecture that supports the corporate-wide distribution of product information. At the provider level are various IBM data sources – whether electronic and human. The data is validated for completeness and accuracy by a Versata software-based application and stored in two different structures: a native IBM DB2® Universal Database™ representation and a SAP representation. For IBM technology-based, data-consumer applications, the data is most efficiently accessed from the IBM DB2® software-based system, while distributed Enterprise SAP modules would access their repository counterpart.

Managing development and deployment issues immediately using integrated tools

When the CVRM system was deployed, a performance issue arose from database-related operations. This was quickly resolved by the database administrator using the Versata Logic Server console. Through the Versata Logic Server console, the database administrator and developers were able to watch the structured query language (SQL) statements, as they were dynamically generated by Versata Logic Server. Almost immediately, the administrator began tuning the database indices, and within the hour, a 15-second response time had dropped to a sub-second response.

The returns

The demand for a source of trustworthy data is virtually endless. “That element of trust is critical. In a company as large as IBM, you can get data from a number of places. Or you can get information from a trusted source – and that is what the IBM data reference system and the Versata Logic Server represent,” says Thacker. Using the Versata Logic Server to validate data at its source is critical to building this trusted data.

IBM discovered the availability of trusted, critical information also enables faster and more reliable evolution of processes and applications. For example, developing – in a single day – a pilot help desk application to access and synthesize historical master data that’s physically dispersed across multiple SAP and DB2 repositories.

IBM also realized additional benefits by using a Versata Logic Server as a front-end validation system, and then by automating the transformation and transfer of that data into the SAP repositories. Without the Versata application acting as the intermediary, the data-entry process would have relied too much on SAP – requiring the project subject-matter experts to be SAP dialog experts as well.

The Versata Logic Server solution demonstrated the business value of abstracted data – data that’s independent from applications yet subject to a consistent enforcement of completeness and accuracy rules. Abstracted data also provides as a buffer in data migration processes. “It can be hard to migrate older data that doesn’t fit into new structures and new ways of doing business,” Thacker explains. “As a buffer, the master reference data can help take our data elements off the critical path for groups making that transition.”

All data elements within the reference system have designated owners who can access and manage their own specific data, but not the data of other owners. What IBM wanted, however, was a flexible system that enabled dynamic ownership changes without requiring a database administrator to build or change views. Using Versata Support Services, IBM extended the standard security mechanisms of Versata Logic Server. The Versata technology-based dynamic security model now provides security-rich, filtered access to data elements, with the ability to dynamically alter information ownership as business processes evolve or as new processes are introduced.

The bottom line

IBM found success using Versata Logic Server business rules to streamline the flow of product information throughout the enterprise. Thacker agrees, “The Versata Logic Server let us adjust to some pretty dramatic changes in process and data scope. And it gave us the speed of development we needed to get that initial project off the ground. We simply could not have done it in any other environment.”

For more information

To learn how you can leverage Versata Logic Server to improve the flow of information throughout your enterprise and help speed products to market to compete in an on demand world, visit:

ibm.com/software/awdtools/versata/



© Copyright IBM Corporation 2002

IBM Corporation
Software Group
Route 100
Somers, NY 10589
U.S.A.

Produced in the United States of America

10-03

All Rights Reserved

DB2, DB2 Universal Database, the e-business logo, e-business on demand, IBM, the IBM logo and WebSphere are trademarks of International Business Machines Corporation in the United States, other countries or both.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries or both.

Other company, product and service names may be trademarks or service marks of others