IBM

Celestica builds enterprise portals with fast payback using IBM e-business software.

Overview

■ **Challenge**

Meet customer demands for business-to-business collaboration to improve efficiency, competitiveness and customer satisfaction

■ **Solution**

Enterprisewide portal delivering a range of automated business services to customers, suppliers, trading partners and employees

■ **Why IBM?**

Celestica considers IBM servers as one of its hardware standards; the company also liked the rapid application development, cost efficiency and ease of integration of WebSphere ® software

■ **Key Business Benefits**

Cost avoidance through alleviation of administrative overhead; better customer service through instant information access; enhanced internal productivity and ability to demonstrate value-added service; faster and more efficient application development using J2EE architecture; project payback requirements met prior to completion

From its state-of-the art technologies to its commitment to superior quality and total customer satisfaction, Celestica embodies the value that original equipment manufacturers (OEMs) seek in partnering with an electronics manufacturing services provider.

It used to be that e-business was a competitive differentiator in the electronics manufacturing service industry; today, it's a business requirement. With rivalries as intense as ever, electronics manufacturing services providers realize that by leveraging Internet technologies, they can raise customer satisfaction while lowering their costs.

Just ask Celestica (*www.celestica.com*), a Toronto-based electronics manufacturing service provider and leader in quality, technology and supply chain management. With more than $10 billion in revenues in 2001, Celestica has 40,000 employees and operates over 40 locations in the Americas, Europe and Asia.

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—David Cefai, Vice President, IT Strategic Solutions, Celestica

*e*business

Key Components

Software

- IBM WebSphere Portal Experience, Version 4.1
- IBM WebSphere Studio Application Developer, Version 4.0
- IBM WebSphere Application Server Advanced Edition, Version 4.0
- IBM Tivoli® Access Manager, Version 3.9
- IBM Lotus® Notes®
- IBM Lotus® Sametime™

Servers

- IBM @server pSeries™

Services

- IBM Global Services

"IBM servers demonstrate powerful processing capabilities, are highly reliable and fit our budget plans."

–David Cefai

Celestica has continually improved its time to market, scalability and manufacturing efficiency. But increasingly, customers were asking for more. Explains David Cefai, the company's vice president of IT strategic solutions: "We were facing an onslaught of demand from our customers for more business-to-business [B2B] collaboration, for everything from online sourcing to auctioning and joint design development. More and more of our customers wanted 24-hour access to reporting information. The challenge was to create a robust, scalable, cost-efficient infrastructure to meet all of these requirements—but without doing it in an ad hoc way."

Celestica sought an affordable, best-of-breed portal development solution offering security, reusability and compliance with open standards for ease of integration. Following an extensive evaluation of offerings from top-tier enterprise portal suppliers, Celestica chose IBM WebSphere Portal Experience, Version 4.1. After a seven-month development and deployment cycle, its customer and supplier portals are in production. A site for employees is scheduled to launch this fall and one for trading partners next year.

"WebSphere Portal Experience has met all of our payback requirements, and our project isn't yet complete," notes Cefai. "It's extremely cost efficient since we don't have to build much of the basic infrastructure ourselves—we can focus on delivering the functionality our users need in the most timely, productive manner."

Closer contact with customers through e-business

With its portals, Celestica is experiencing vast productivity improvements. And it is maximizing its ability to serve its customers and suppliers. An example with far-reaching effects is its available-to-promise (ATP) commitments, which require the company to agree to deliver a certain quantity of goods. Customers submit ATP queries to Celestica to inquire about whether the manufacturer can handle the requested quantity.

Responding to ATPs used to be a manual and time-consuming process, with employees searching through reports on capacity, material availability and throughput from various legacy systems in order to respond. "Since this information is always changing," says Cefai, "it's vital for us to capture it as promptly as possible so that our responses are based on the most current data."

Now, when customers submit ATPs, the portal automatically accesses Celestica's backend systems and applies algorithms about the information retrieved to provide answers to customers instantaneously. "We can get back to the customer in a matter of five or ten minutes," says Cefai. "Our customers can then readily understand—and plan for—the ramifications of certain scenarios. And we don't have to get involved in 80 percent of the process, which enables us to leverage our resources to truly add value to the other 20 percent."

Through the portal, suppliers can access forecasts, component specifications, inventory triggers and other functions. The employee portal will be a channel for corporate communications as well as self-service functions such as benefits management. The trading partner portal has not yet been designed.

Development efficiency with WebSphere software

The infrastructure for Celestica's enterprise portals is based on a three-tier architecture—with common security and database layers and an application layer—running on IBM @server pSeries. Notes Cefai, "IBM systems are one of our hardware standards, and for good reason: its servers demonstrate powerful processing capabilities, are highly reliable and fit our budget plans. Our pSeries servers have demonstrated the technological advancement that we need in a UNIX® server."

Celestica used IBM WebSphere Studio Application Developer to efficiently create the Java™ technology components that manage the business logic for its portals. WebSphere Studio Application Developer, a standards-based application development tool based on the open Eclipse platform, supports rapid development through easy integration with other open standards-based development tools.

WebSphere Portal Experience provides the development environment to build scalable portals that can access enterprise data and applications. It consists of a suite of IBM software that provides personalization, workflow, security, collaboration, data storage and enterprise content management. For example, IBM WebSphere Application Server Advanced Edition, Version 4.0, provides the runtime environment for the Java components. IBM Lotus Notes and IBM Lotus Sametime support the collaborative functions of the portals. And IBM Tivoli Access Manager, Version 3.9, delivers a comprehensive security solution, including access control.

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–David Cefai

From Celestica's portal, customers can participate in design collaboration with Celestica, and access the company's data warehouse to retrieve various reports.

"Protecting our customers' intellectual property is one of our paramount concerns, so we require a strong work-flow and role-based infrastructure that allows customers to easily review information and collaborate—without having access to other customers' data," notes Cefai. "WebSphere software provides this foundation, with a high level of security. When a visitor logs on, the portal's personalization capabilities enable it to recognize who that person is, know which data and application sets he or she is allowed to access and configure the screen accordingly."

Because WebSphere Portal Experience supports Java 2 Platform, Enterprise Edition (J2EE) technology and open standards and features third-party adapters, Celestica found it easy to integrate its portals with its i2, SAP, data warehouse and other business applications. Celestica managed the bulk of the design, development and implementation work, with assistance from IBM Global Services - Network Outsourcing Services. Says Cefai, "IBM Global Services helped resolve some interconnectivity issues, which saved us development time on our initial portal."

By reusing development code and the same J2EE technology-based architecture, the company has delivered each new portal to the market more quickly. Adds Cefai, "As we customize capabilities for specific customers, we'll be able to reuse that development work to enhance the interface and functionality for other customers."

A partner of choice

While its enterprise portals are generating benefits within Celestica, their impact on customer service is invaluable. Concludes Cefai, "In one solution, WebSphere Portal Experience provides a rich package of functionality, which we will continue to leverage as our users' needs change. Even if the expectations of our customers, suppliers and partners grow more complex, we have a core infrastructure that supports our integration and customization needs."

For more information

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