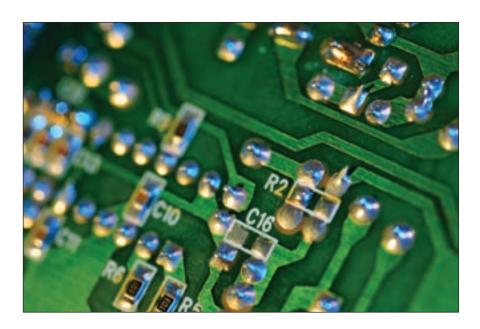IBM

E2open integrates the electronics industry supply chain with the help of IBM WebSphere technology.

Overview

■ **The Challenge**
Provide software and tools to develop an integration network for industry process integration

■ **The Solution**
Comprehensive Web Services solution built on a foundation of IBM WebSphere® software

■ **Why IBM?**
Leadership in emerging technologies; flexible, reliable and scalable technology solutions; ability to deliver on time; global reach; single system integration source for hardware, software, consulting and implementation services

■ **Key Business Benefits**
Dynamic, open-standards-based integration platform; rapid time-to-value; faster return on investment

An enormous integration undertaking
E2open (www.e2open.com) understands the challenges of trying to integrate companies, business processes, value chains and customers to create more efficient ways of doing business. The company provides Internet-based infrastructure software for industry process integration, enabling business process synchronization across an enterprise and its business partners. Customers apply E2open's solution, the E2open Integration Network, to support buy-side, sell-side and interbusiness unit processes in product lifecycle management (PLM), supply chain management (SCM), customer relationship management (CRM) and supplier relationship management (SRM).

Founded in 2000, E2open was faced with the daunting task of developing a solution for interenterprise process integration for the 65,000 companies in the global electronics industry, including those companies and industries that consume or supply electronic goods and services.

> *"We were looking for a software infrastructure we could build our business on, and we felt the IBM set of products was the most scalable and secure in the industry."*
>
> —Lorenzo Martinelli, Executive Vice President, E2open

The size and complexity of the challenge notwithstanding, success was critical to improving the efficiency, cost-effectiveness and value of process collaboration. Initially, E2open analyzed the way the 65,000 companies interacted and determined that it was complex, and that technology was changing the dynamics of business relationships in the industry. Lorenzo Martinelli, Executive Vice President of E2open, explains, "The biggest problem is that a lot of these companies started changing the way they worked together over the last few years. A major restructuring of the industry led to fragmented and unreliable information across these companies." This created an important opportunity for E2open. "We set out to provide a network to simplify the integration and really change the economics of that integration," Martinelli says. E2open determined that to facilitate integration, it would need to implement a shared network infrastructure—and opted for an IBM WebSphere solution as the foundation to support a network architecture.

Integration issues—the challenge of cost reduction

Traditionally, integration between supply chain participants has been point to point, making it both expensive and challenging to maintain. The multiple connections over the Internet or virtual private networks must be managed individually, and smaller suppliers are often unable to participate due to cost considerations. The need to seamlessly integrate disparate internal enterprise applications with these networks adds to the challenge. To address these issues, E2open needed to develop a dynamic and flexible network-based integration model that could seamlessly integrate participants and their heterogeneous applications, while dramatically decreasing the cost and deployment complexities of maintaining these connections. Based on its analysis, E2open determined that a Web services solution could help significantly reduce integration costs compared to using existing integration options. For E2open, choosing a technology vendor with advanced integration capabilities and scalable and reliable software was critical.

After exploring various solutions, E2open turned to IBM for help. E2open chose IBM for the power, reliability and scalability of WebSphere as well as for the company's comprehensive services skills and pioneering work related to integration. Martinelli explains, "IBM was one of the leading companies in [Universal Description, Discovery and Integration] UDDI , so we felt that the right talent was there. Solution reliability and scalability were essential, so we looked for a company that had the processes and talent to deliver that. Finally, we needed an [information technology] IT stack on which to build technology that is highly reliable. So when you look at all of those criteria, IBM was the clear choice."

Changing the economics of industry process integration

To support the requirements for industry process integration, E2open leveraged the IBM WebSphere platform and development tools to architect a scalable network solution, which business partners can access using formats ranging from Web services to the RosettaNet Implementation Framework to Electronic Data Interchange (EDI). By building on IBM middleware, E2open can provide an open, dynamic industry integration network that delivers rapid participant enablement and that helps customers manage intercompany business processes across the electronics industry ecosystem. E2open customers gain the following:

- *Web services-enabled software platform, accessible via the Internet, to support business-to-business process integration*
- *Security-rich infrastructure, which uses IBM Tivoli® Access Manager for Business Integration to provide highly reliable Internet-based collaboration that includes encryption, perimeter defense, cross-company single sign-on, role-based authentication and authorization*
- *Private UDDI-based industry process directory—built with the IBM jStart team, which helps companies embrace new and emerging software technologies—to enable rapid and cost-effective registration of business partner integration capabilities*
- *Web services-based gateway, which was created using new capabilities from the IBM WebSphere Business Integration Connect product family, that can be easily installed behind the customer's firewall and automatically configured and tested for connection to the E2open Integration Network*
- *End-to-end process integration, by leveraging worldwide business integration solutions, services and skills from IBM.*

In essence, the E2open solution divides the infrastructure platform costs among network users, decreases the complexity of managing integration points by enabling connectivity reuse, reduces deployment cost and time for each participant, and lowers change management cost and complexity for each participant. This allows E2open to enable companies of all sizes to easily and cost-effectively connect to its network. While many access methods to the E2open network are available, a modular WebSphere-based tool, called Business Integration Connect Express Edition for E2open, provides a cost-effective means of accessing Web services by delivering an easy-to-install subscription license that provides connectivity through E2open's network.

Key Solution Components

Software
- IBM WebSphere® Application Server
- IBM WebSphere Business Integration Connect
- IBM DB2®; IBM Tivoli® Access Manager for Business Integration
- IBM Tivoli Enterprise Console®
- IBM Tivoli SecureWay®

In addition to WebSphere, E2open also takes advantage of IBM DB2® data management software, the IBM Tivoli Enterprise Console® and the Tivoli SecureWay® product line, which underpins enterprise security. For E2open, the combined software and services capabilities of IBM were an important differentiator, as were the solid reputation and maturity of IBM products and services.

Delivering cost reduction in business-to-business integration

When E2open approached IBM, it was facing tight deadlines and complex integration challenges. It needed to quickly set up a highly scalable and reliable network and begin growing its customer base. With the combination of scalable, reliable WebSphere software as well as IBM professional services expertise, E2open is able to provide the electronics industry ecosystem with a solution to more effectively integrate business processes across partners for enhanced competitiveness and improved return on assets across the value chain. "We needed the project done on time because it was critical to our rollout. IBM could obviously deliver, and they have," says Martinelli.

Looking ahead, as E2open works to become the dominant integration network for those companies involved in the manufacture and consumption of electronics products, WebSphere will continue to be integral to the company's success. "Right now we are handling transactions across approximately 600 companies—and there are 65,000 in the industry," Martinelli explains. "We will rely extensively on IBM to allow us to scale very rapidly so we can capture the new opportunities."

For more information

To learn more about this solution, please visit:

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