

Leader in Power and Automation Technologies Implements Advanced Collaborative Commerce Network and Significantly Cuts Average Process Costs



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– Herbert Brecheis, Head of Supply Chain Management Information Systems, ABB

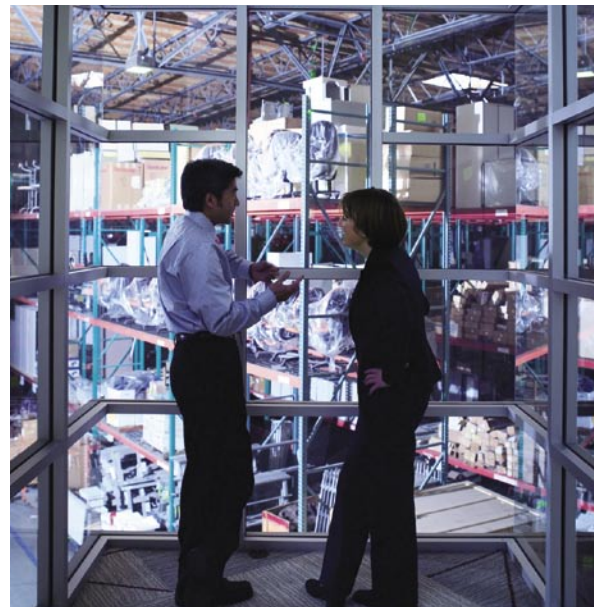
ABB provides utility and industrial customers with a broad range of products, systems and services. The company boasts around 120,000 employees, operates in around 100 countries, and deals with several thousand suppliers. ABB needed to update its existing paper-based processes so that its suppliers could deliver products more quickly and easily. It wanted to build a new infrastructure so that its buyers and suppliers could engage in collaborative planning, electronic transactions, and online reporting. HP and Microsoft worked together to implement an enterprise application integration (EAI) solution. ABB chose an advanced commerce network with Web and enterprise resource planning (ERP) interfaces, based on Microsoft® BizTalk® Server 2002. As a result of improved integration and automated processes, ABB has cut its average order processing costs and reduced the time it takes to complete business-critical transactions. Now it can respond more quickly to its customers’ time-pressured requirements.

Challenge

ABB provides power and automation technologies to utilities and manufacturing companies who wish to improve performance while minimising environmental impact. Its power technologies division provides high and medium-voltage products, power transformers, distribution transformers, utility automation systems, and power systems. ABB’s automation technologies division provides drives and motors, control and enterprise products, low-voltage instruments, paper, minerals, marine and turbocharging, and robotics products.

The company boasts around 120,000 employees, operates in around 100 countries, and deals with several thousand suppliers. To deliver a high-quality and efficient data exchange to its plants and suppliers, ABB must ensure that they can all be cross-connected in one integrated platform.

Herbert Brecheis, Head of Supply Chain Management Information Systems, ABB, says: “We need to ensure that contracted suppliers can provide materials quickly and easily, so that together we can engage in collaborative planning, electronic transactions, and online reporting. Traditionally, a lot of our processes have been manual, and therefore time-consuming and sometimes subject to human error.”



“Even though we did have a Web-based solution in place, it couldn’t provide integration between the various enterprise resource planning (ERP) systems across different plants. As a result, we lacked the level of collaboration between ABB buyers and suppliers that we needed. In addition, it did not deliver the business-to-business (B2B) connectivity that we required.”

There were also a number of iterations of the company’s existing solution. Colin Munt, Consultant Electronic and EDI, HP, says: “Each distributed version was doing different things, so it was becoming increasingly difficult to control. If you wanted a supplier, for example, to go to two different factories, you needed to connect them to two different systems, which wasn’t very efficient. With an integrated system, ABB hoped to be able to better manage its systems, improve supply chain efficiency, and reduce the total cost of ownership of its infrastructure.”

Solution

In early 2003, ABB embarked on an enterprise application integration (EAI) project to implement an advanced collaborative commerce network between its factories and their suppliers. It needed to find a partner who could deliver a technology solution to best suit its requirements.

Brecheis says: “We conducted a request for proposal (RFP) with the major players in this technology area. We weren’t just looking for the right technology though, we wanted to find a partner who would be involved in the full project life cycle, including planning, implementation, and support.”

“Perhaps more importantly, we needed a partner who could deliver a low total cost of ownership (TCO) covering initial development, operation costs, and ongoing integrations. Finally, we awarded the contract to HP and Microsoft.”

HP was responsible for the implementation of the solution and Microsoft fulfilled a quality assurance (QA) role. The new solution, Advanced Supply Chain Collaboration (ASCC) Version Four, is based on Microsoft® BizTalk® Server 2002, Microsoft SQL Server™ 2000, and the Microsoft .NET Framework. In 2004, it was rolled out to 45 factories and around 750 suppliers.

The infrastructure consists of two parts.

The first is a Web portal, where suppliers can log in and connect to a particular ABB factory. Here, they can call up different reports relating to forecasts, on-time deliveries, late deliveries, and complaints. The second part is the B2B interface. Selected suppliers can now interface their ERP systems to ABB’s commerce network to receive orders, process order confirmations, shipment advice, and invoices—all automatically.

BizTalk Server 2002 works as an integration hub between the ABB factories’ and suppliers’ disparate systems. Information flows from system to system through Microsoft .NET Web services. BizTalk Server can convert that data from a standard document format into a format specific to each ERP system. When the ERP system replies, BizTalk Server converts the document back into a standard format and then displays it on the Web. SQL Server is the database engine for the whole ASCC application.

Customer at a glance

Industry sector: Utilities and Manufacturing

Name: ABB

Headquarters: Switzerland

URL: www.abb.com

Why HP?

- Strategic relationship between HP and Microsoft
- HP has a proven track record in delivering end-to-end solutions
- HP has an in-depth knowledge of the industry and its technology requirements

Software and services

- HP Consulting and Integration Services
- Microsoft® Consulting Services
- Microsoft BizTalk Server 2002
- Microsoft SQL Server 2000
- Microsoft .NET Framework

Partner

- Microsoft

Together HP and Microsoft offer an exceptional total experience at an affordable price.

Results

HP and Microsoft Deliver a Tailored Solution

HP and Microsoft have delivered a fully integrated solution that has been tailored to meet ABB's exact requirements. Brecheis says: "HP and Microsoft worked well together to provide us with a solution that has transformed the way we work."

"With ASCC Version Four, we can automate our time-consuming manual order process. And with improved collaboration, we have a clear view of our business operations thanks to accelerated supplier forecast and performance processes."

"This means that we can expect improved performance from our suppliers. With faster, more transparent, and more robust processes, our suppliers can devote the resources they need to ensure a fast and reliable supply to our plants."

Improved Integration Improves Relationship with Suppliers

Because the new infrastructure is based on BizTalk Server and the .NET Framework, ABB can ensure that its own factories and suppliers can all connect with each other regardless of the ERP systems they use. Brecheis says: "With EAI, our business processes transcend company borders and we can all operate in a standardised way."

Automated Processes Save Time and Reduce Errors

Because it has moved away from its manual operations, ABB has seen a significant reduction in the amount of time it takes for suppliers to react to demand.

Brecheis says: "We used to process a lot of orders and invoices through fax and email. Now that we have streamlined our operations by introducing an advanced commercial commerce network, we have dramatically cut our lead times and also reduced the incidences of data inaccuracies caused by human error."

"We also have a much clearer view of what's happening along the supply chain. Obviously that has a significant impact on the way we interact with our suppliers."

Dramatically Reduced Average Process Costs

By automating its processes, ABB estimates that it has significantly reduced the cost of completing transactions with its suppliers. Brecheis says: "We now have a much more standardised way of working. We've cut back on our costly dependence on paper-based processes and achieved a much more effective means of communication with our suppliers."

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A Scalable, Easy-to-Manage Infrastructure

ABB has found the new infrastructure to be reliable and easy to manage. Munt says: "With the BizTalk Server-based system in place, ABB has simplified its infrastructure so that very little technical work needs to take place for its factories and suppliers to communicate efficiently."



Challenge

ABB wanted to:

- Improve communications with its disparate suppliers.
- Help its partners and suppliers to buy materials more quickly and easily.
- Provide an infrastructure to support collaborative planning, electronic transactions and collaborative online reporting.
- Reduce the total cost of ownership of its IT infrastructure.

Solution

- HP Enterprise Application Integration Solution.
- HP and Microsoft worked together to design and implement a B2B collaborative, Web-based commerce network.
- The solution is based on Microsoft BizTalk Server 2002, Microsoft SQL Server 2000 and the Microsoft .NET Framework.

Results

- A platform which can extend to incorporate new business applications.
- Standardised operations and improved integration improves relationship with suppliers.
- Automated processes save time and reduce errors.
- Delivers greater transparency across the supply chain.
- Dramatically reduced average process costs.
- Provides a scalable, easy-to-manage infrastructure.
- HP and Microsoft work together to deliver a tailored solution.

Brecheis says: "Because new systems can be easily integrated, we don't need to engage in any heavy development work to get new suppliers online. Our new system is built in such a way that it can scale to accommodate future growth of the company and its network of suppliers."



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