



A-dec Inc.

EMC Consulting helps A-dec Inc. reduce proposal and sales quote process from days to hours



A-dec Inc., a worldwide leader in the manufacturing and marketing of dental equipment and furnishings, is known for its innovative products and integrated designs, many of which are built to customer specifications.

The manual process used to create customized product packets for proposals and sales quotes for the company's Preference Collection cabinetry product line was very labor-intensive. In addition, customized drawings could be produced for only one out of 13 product families within the product line, and the average turnaround time was three days.

A-dec Inc. selected EMC® Consulting, part of EMC Global Services, to help streamline and improve the company's business-critical Preference Collection sales quote and proposal creation process. Selection of EMC was based on a proven record of successful Microsoft BizTalk Server implementations, along with expertise in developing state-of-the-art service-oriented architecture (SOA) environments.

Together, a plan was created to automate the process by integrating multiple enterprise systems, including extranet, ERP, CAD, and product publishing, and base it all on a reusable SOA platform capable of supporting integrations for years to come.

The project's ultimate goals were to improve the quality and speed of A-dec Inc.'s service to customers; better support the company's global network of authorized dealers and distributors; produce more accurate manufacturing orders; and enhance operational flexibility for a more competitive edge, now and in the future.

"We had a very tight schedule for this project and we needed someone who had done this before, could teach us the ropes, and take us where we wanted to go with this technology," says Ralph Osburn, technology manager. "We also liked EMC's pragmatic, real-world approach to the service-oriented architecture with regard to bringing in the technology, using best practices, and showing value very quickly—versus spending many months or years on development and planning before seeing payback."

A comprehensive three-part strategy pulls it all together

Over the last few years, A-dec Inc. had been implementing Microsoft technologies into its IT environment in an effort to leverage the benefits of standardization and out-of-the-box integration. A-dec Inc. had also introduced several components of an SOA architecture, but did not have the higher-level enterprise engine that could help the company link key applications from multiple vendors to facilitate a streamlined, automated, and highly accurate sales quote and proposal creation process.

"We wanted to use the investments we had made in these best-of-class applications and SOA services, so the challenge we faced was in connecting several moving parts or several complex applications into one greater enterprise application," explains Osburn. "The synergy we were looking for was to take the good from all of these components and make something great out of combining them."

The company welcomed the broad Microsoft technology knowledge and skilled technical resources of Microsoft Gold Certified Partner, EMC Consulting, to help achieve its goals.

“The first thing our EMC consultants did was ensure they had a good understanding of our business process and what we were trying to accomplish,” says Chris Etzel, a manufacturing engineer at A-dec Inc. “Their experience on past BizTalk Server projects, their knowledge of best practices, and their ability to steer us in the direction we wanted to go—along with their know-how in making the solution fit within the model of the service-oriented architecture—were all big initial benefits.”

EMC consultants approached project planning and implementation from the perspective of three layers: the data and services underlying the solution; the technical framework for orchestrating and managing the business process; and the delivery of business process data to the users and administrators. Strategy was based on what was already in place and what was needed. EMC consultants also addressed a primary mandate to incorporate automation throughout the process, including automation of quotes, proposals, and re-entries of modified quotes.

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Ralph Osburn, Technology Manager

“We wanted to take a process that had traditionally been done by hand and make it into a hands-off process from start to finish,” explains Etzel. “We didn’t just want to automate quotes and proposals, we also wanted the system to capture any changes and dynamically respond by sending a new drawing to the customer after a requested change.”

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Putting today’s goals within reach while positioning for the future

The Microsoft Application Platform provides an integrated set of operating systems, servers, applications, and development tools. Using SOA principles, EMC consultants leveraged this set of building-block capabilities to create a composite solution designed to automate and streamline the management of the company’s sales quote and proposal creation process, and provide a foundation for business process agility and future integrations. The solution incorporates the advanced integration, process management, business intelligence, dashboarding, and infrastructure optimization features and functionality of Microsoft BizTalk Server 2006 R2, Microsoft SQL Server 2005, Microsoft Office SharePoint Server (MOSS) 2007, and Microsoft Virtual Server 2005.

“BizTalk Server is the hub of the system and it marshals all of the transactions,” explains Etzel. “It takes a request from the dealer or the doctor and then initiates the proper operations, ensuring that everything is completed in a timely manner. If not, it sends notifications and alerts indicating something is wrong.”

Microsoft BizTalk Server 2006 R2 is hosted on Microsoft Virtual Server 2005 which facilitates reduced hardware costs, increased application availability, simplified capacity expansion, streamlined backup and recovery, and decreased server administration costs.

The solution also facilitates near real-time monitoring of key performance indicators through Microsoft BizTalk Server Business Activity Monitoring (BAM) capabilities, while a MOSS 2007-based administration dashboard displays recent and current business process orchestrations in a graphical format.

Error reporting and notification are also completely automated using Microsoft SQL Server 2005. When an error occurs, Microsoft BizTalk Server aggregates error information and relays it to Microsoft SQL Server to be forwarded on to system administrators. Error and status information is also saved to the Microsoft BizTalk Server BAM databases to be displayed on the MOSS 2007 dashboard.

All system status data is available in graphical format on the MOSS 2007 dashboard. Microsoft SQL Server 2005 and Microsoft SQL Server Reporting Services are used to parse out business process data and SLA metrics from the BAM databases. Previously, service metrics were generated by hand using Excel worksheets.

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In addition, proposal detail summaries and product configuration information are part of the sales packets generated by the system which include product drawings, product technical pages, and proposal details such as product line items, configurations, and pricing.

“The administrator now has a complete visual view of an application’s inputs and outputs for real-time insight into the process,” says Osburn. “The MOSS dashboard is also equipped with the tools to research any problem or potential issue, correct it, and restart that process back into the application. The reports created also show us, for example, how many quotes we are producing and have given us a level of visibility into the process that we did not previously have.”

The engagement, which was under an aggressive timeline, was successfully completed in less than five months—two months for solution planning and another two and a half months for deployment.

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Facilitating autonomy

Knowledge transfer throughout the EMC engagement was identified by A-dec Inc. as a key contributing factor to the solution’s success.

“One of the things we look at when considering a partner is their attitude and approach around educating us,” says Osburn. “We developed a solution together with EMC and they took the initiative to educate us on all of the different ways we could add value, such as business activity monitoring, resulting in a solution that was even better than what we had initially considered.”

EMC worked with A-dec Inc.’s in-house development and operational staff to impart an understanding of the Microsoft BizTalk Server environment—from the solution’s key components and how they work to what it takes to maintain the environment. Education and training were also offered during and after deployment.

“We don’t want to be tied to a partner because they know something we don’t,” says Osburn. “The knowledge transfer that happened one-on-one was worth weeks of classroom training. It was specific to our environment, but also broad enough that we understood the capabilities going forward. We still have a lot to learn about BizTalk. It’s a very full-featured product and we intend to expand our use of it in the future.”

Gaining a competitive advantage

A-dec Inc.’s new automated sales quote and proposal creation process now enables the company to create and deliver packets to customers* within hours of receipt of a new request for quote or proposal. Because process components are now linked, dealers can log into A-dec Inc.’s Web-based quote and proposal tool, configure their products, generate their proposals or sales quotes, and initiate an automated process that develops visual information and details about the cabinetry being proposed or purchased.

Given that A-dec Inc. dealers also sell competing products, the fact that this solution now provides a highly efficient “design win” process, offering compelling data and rapid turnaround times, helps strengthen the incentive for a dealer to position A-dec Inc. products over those of their competition.

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“Our customers’ response to the drawing packets and the speed in which we can provide them has been very positive,” says Cheri Alteneider, sales and marketing project lead. “Dealers can quickly present a pictorial representation of the cabinetry configuration being purchased which enables doctors to better visualize what they are buying. This project has helped us eliminate a lot of work related to the sales process that was previously required of our dealers and our sales force.”

In addition, prior to the implementation of this automated, time-saving solution, the company only had enough staff to create custom product drawings for one of the product families. Now custom packets can be produced for all products within the Preference Collection with the same number of employees, and in less time. Packet development now extends beyond the regular work week for full 24x7 coverage.

“Our entire Preference Collection line is now automated and we’re producing close to 50,000 individual drawings a year,” says Etzel. “If you were to take that work and break it down across individual draftsmen, you would need 10 to 15, possibly even 20 draftsmen to complete the same amount of work that one automated system is covering.”

The design process has been configured to directly integrate with the manufacturing process. Increased visibility into the entire process enables dealers to more easily check on orders and avert errors before they reach manufacturing. In addition, because changes to existing orders are now tracked and automatically processed, the possibility that a drawing might make it to manufacturing

*A-dec Inc. customers are both the dealers who actually sell the equipment as well as the end customer, such as a dentist, who purchases the equipment from the dealer.

without reflecting a customer's change request has been eliminated. Automating the process has also enabled A-dec Inc. to discover and correct errors in internal assembly documents that had been "worked around" on the floor for years.

"A-dec Inc. is a company that is very focused on quality and process improvement," says Osburn. "To achieve our goals in these areas, we need to have measurements of our processes and keep track of our quality—whether it's on the shop floor or in a computer or technology solution."

Building automation into the system has also given the company the ability to quickly react to market need and ramp up new product lines quicker than competitors. Of added benefit toward operational and business flexibility is the SOA architecture aspect of the solution. It allows for the reusability of process components by other applications, enabling A-dec Inc. to rapidly respond to expanding and changing requirements.

"The value of the SOA architecture is in having business agility and solutions velocity in that we have the flexibility and interoperability to easily incorporate solutions that we want to deploy," says Osburn.

Today, with the help of EMC Consulting, A-dec Inc.'s automated sales quote and proposal creation process has enabled the company to significantly improve service to its customers, improve operational efficiency and flexibility, and strengthen its ability to win the business over the competition, now and in the years to come.

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