

Aviation Electronics Leader Soars with XML

Rockwell Collins deployed ACE XML Gateway to enhance customer support portal and increase client satisfaction.

EXECUTIVE SUMMARY
<p>ROCKWELL COLLINS</p> <ul style="list-style-type: none"> • Aviation • Cedar Rapids, IA • 17,000
<p>BUSINESS CHALLENGE</p> <ul style="list-style-type: none"> • Need to enhance services portal to meet customer expectations and increase satisfaction levels
<p>NETWORK SOLUTION</p> <ul style="list-style-type: none"> • Deployed XML Web services solution to enhance customer service portal
<p>BUSINESS RESULTS</p> <ul style="list-style-type: none"> • Developed required services within two months • Immediately identified development cost savings of US\$70,000 • Secured connections between portal and back-end servers • Exceeded customer expectations

Business Challenge

Rockwell Collins is a worldwide leader in the design, production, and support of communication and aviation electronics for commercial and government customers. The company's 17,000 employees in 27 countries deliver industry-leading communication, navigation, surveillance, display, flight control, in-flight entertainment, information management, maintenance, training, and simulation solutions for commercial airlines and allied military aircraft.

In an effort to continuously improve service provided to customers and partners, Rockwell Collins' Manager of Web Delivery, Shawn Ferguson, proposed the creation of a service-oriented architecture based on Web services. His proposal leveraged XML and Web services to provide a reusable and interoperable method for delivering information via the company's portal infrastructure as well as directly by the company's customers and

partners systems. Specifically, Rockwell Collins needed to provide a real-time repair status and repair initiation service in addition to the service already provided via the company's customer portal. Ferguson was tasked to lead the initiative that would offer their clients the level of support that they need to conduct business with a competitive advantage.

Rockwell Collins needed to augment their portals with system-to-system information delivery capabilities to meet customer expectations, and implement an architecture for future growth. Initial drivers included customer demand for direct system-to-system access to information on repair scheduling, status, and inventory availability in real time, 24 hours a day. Those same services, accessing SAP and custom programs, would then be available for direct connections by Rockwell Collins' customers' computers. With a global security-sensitive clientele, Rockwell Collins needed to be able to securely and rapidly meet the needs of all customers at all times.

There were three main issues Ferguson needed to address in this project:

- Authenticating users and the portal to help ensure that private information is shared only with appropriate users
- Protecting the privacy of information between the portal and the back-end systems including SAP and custom programs

- Mediating between the portal's preferred formats/transport and the different back-end systems' expectations.

Network Solution

Rockwell Collins selected the Cisco® ACE XML Gateway to power their service-oriented architecture and give their customers the real-time information exchange that they needed to succeed. Not only did the Cisco ACE XML Gateway meet all of the technical requirements for the project, Cisco could also meet the project's aggressive time frame. Rockwell Collins was also impressed with the Gateways' scalability, viability, and policy workflow feature. The Cisco ACE XML Gateway rapidly enables networks for faster service availability, robust security, and transparent interoperability. Rockwell Collins deployed Cisco ACE XML Gateways in their DMZ for comprehensive deep XML message inspection and security, access control, and threat defense. The Cisco ACE XML Gateway also accelerates authentication and authorization functions, while centralizing Identity and Access Management (IAM) integration and delivering high-performance message-processing power.

Cisco's patented deep-message inspection provides continuous acceleration with robust perimeter and internal security, accelerates message processing, and enforces security based on content as well as context. Cisco's service virtualization enables Rockwell Collins to rapidly deploy services with unlimited virtual interfaces to a single service, and also helps secure and controlled routing to these services.

“We've already made Cisco a foundational piece for everything [XML-based] we do; we use it for internal and external services. We want to start with everything being managed, everything secure, everything inspected, and if we need to expose that service to an external partner it's ready to go. The Cisco ACE XML Gateway will be a fundamental part of our infrastructure going forward.”

—Shawn Ferguson, Manager of Web Delivery for the e-business organization, Rockwell Collins Inc.

Business Results

Within two months, Ferguson's team developed the required services. Within six weeks, the Cisco ACE XML Gateway was installed, and the services were deployed, tested, and exposed as secure production services. Using the Cisco ACE XML Gateway, Rockwell Collins is able to create Secure Sockets Layer (SSL) connections between the portal and back-end servers; authenticate and authorize back-end system access; and accelerate XML processing by offloading XML validation and transformation. This was accomplished with no changes to their back-end servers. As a result of this new architecture, Rockwell Collins identified an opportunity to eliminate the development of duplicate capabilities that resulted in saving the company approximately US\$70,000 in development costs.

Over the course of the next year, Fergason's group has requirements to build another eight services, including enhancement to the repair status service, inventory requests, parts purchasing, material forecasting, requirements flow, order status, and repair/contract reporting as well as directly connect those services with their customers' systems. Rockwell Collins also has plans to implement a supply chain pilot, and is planning to use the Cisco ACE XML Gateways to secure access to their Universal Description, Discovery, and Integration (UDDI), while looking for synergies to replace existing electronic data interchange (EDI) capabilities.

PRODUCT LIST
ACE XML Gateway

For More Information

To find out more about the Cisco ACE XML Gateway, go to: <http://www.cisco.com/go/ace>.



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