

CASESTUDY

# ROUTEONE SECURES WEB SERVICE-BASED CREDIT APPLICATION MANAGEMENT SYSTEM

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## ROUTEONE SECURES CREDIT APPLICATION

In highly competitive markets such as financial services and manufacturing, technologies that save time and money earn top consideration. But XML Web Services, often touted for its ability to create business value, has been left off the short list for implementation -- until now. With the introduction of the IBM WebSphere DataPower XML Security Gateway XS40, WebSphere DataPower has removed the performance and security hurdles that typically hold innovative Web services projects in pilot. Using the XS40, RouteOne is proving that XML Web Services can be deployed securely for real business gains.

RouteOne LLC is a joint venture formed by DaimlerChrysler Services, Ford Motor Credit Company, GMAC and Toyota Financial Services to redefine and improve the credit application process for automobile dealers and their customers. Using XML Web Services technologies, RouteOne is linking thousands of dealers nationwide to multiple finance sources so they can instantly and securely exchange credit application information online. This innovative approach is slashing the time and costs typical of traditional systems; thereby improving customer satisfaction and ultimately leading to increased sales for the automotive industry.

## XML AT WORK

The RouteOne application is groundbreaking in its ability to connect the proprietary systems of so many different auto dealers and financial institutions together seamlessly.

This first of its kind Web-based system allows dealers to manage the credit application process, which includes submitting credit application information to and receiving credit decisions from multiple financial sources. The initial set of participating financing companies includes Bank of America, National Auto Finance Company, Nuvel Credit Corp. and Saab Financial Services.

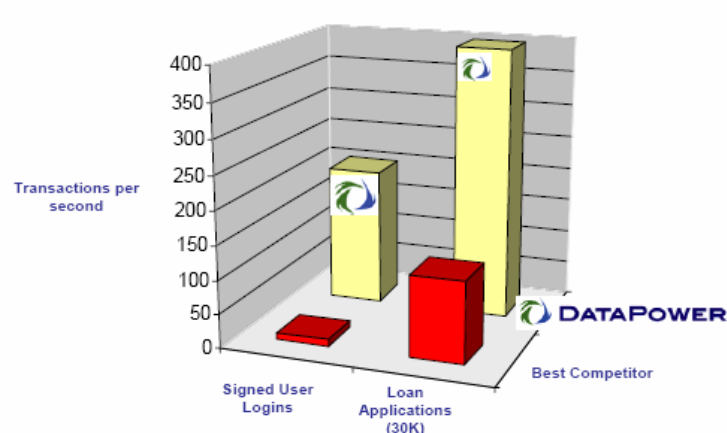
The revolutionary enabling technologies at work are XML and SOAP, integrating disparate applications using ordinary Internet connections. The hitch in most XML Web Services deployments is the need for more than the ordinary security found on the Internet today. The ordinarily-used SSL (Secure Sockets Layer) secures data in transit with bulk encryption but leaves it unprotected when stored on servers and cannot encrypt individual fields of an XML document – a must for XML Web Services security. While traditional firewalls can filter traffic based on

network-layer information, XML Web Services demand content-level filtering. Simply put, when it comes to XML, new approaches are needed: ones that ensure authenticity, data integrity, and support for non-repudiation.

The difficulty in meeting these new XML Web Services security requirements is that because XML is a text-based encoding standard, it consumes an extensive amount of processing. As such, general-purpose software solutions fail to scale to meet the requirements of production applications. This is precisely why RouteOne opted for a purpose-built network device to provide the needed XML security. "We need to be as frictionless as possible, reliable and bulletproof in handling the credit apps that come from the dealers to the banks," said Joel Gruber, chief information officer for RouteOne. "When you consider the sensitivity of information, security is paramount. Only DataPower delivers the performance and security needed for an application of this size and type. They were the best in both performance and scale."

Performance was a key consideration for RouteOne who uses the STAR (Standards for Technology in Automotive Retail) schemas in its application. "One of the big problems with XML is memory usage. The STAR standard lays out specifications that result in pretty large XML documents. We needed a fast and scalable solution that would work independent of document size," said Gruber. In order to address the need for high-performance security, T.N. Subramaniam, IT chief architect at RouteOne said his company looked at several software and appliance-based XML security solutions. But "the software solutions were too slow for the volumes we were talking about," Subramaniam said. The other appliance didn't cut it, either, he said. In fact, XML Security Gateway XS40 outperformed its nearest competitor by a factor of 15 as demonstrated in the following graph.

**FIGURE 1: WebSphere DATAPOWER XML Security Gateway XS40 SECURITY PROCESSING PERFORMANCE**



RouteOne selected XS40 for its scalability, strong Extensible Stylesheet Language Transformations support and the tool's use of "standard technology, which allowed us to make a number of tweaks easily," Subramaniam said. He added that "DataPower has an extensive and documented background in optimizing XML and XSLT processing. That experience was important to us."

Another deciding factor was that the XS40 was one of the few solutions that included SSL acceleration as well. "We're using the XML security functions to enable foolproof auditing and non-repudiation functions. But on top of that we are talking about huge volumes of SOAP that are sent over HTTPS. The integrated SSL acceleration in the XS40 makes securing both XML and transport layer security functions straightforward" said Subramaniam.

In addition to low latency, a key requirement of the RouteOne loan application process is the ability to securely and reliably process a high volume of requests (over 40 million over a year). After surveying varying solutions for implementing XML Web services security, RouteOne saw variances in scalability among XML security solutions. The XML Security Gateway XS40 was selected for its ability to provide the processing headroom necessary to implement sophisticated XML security functions.

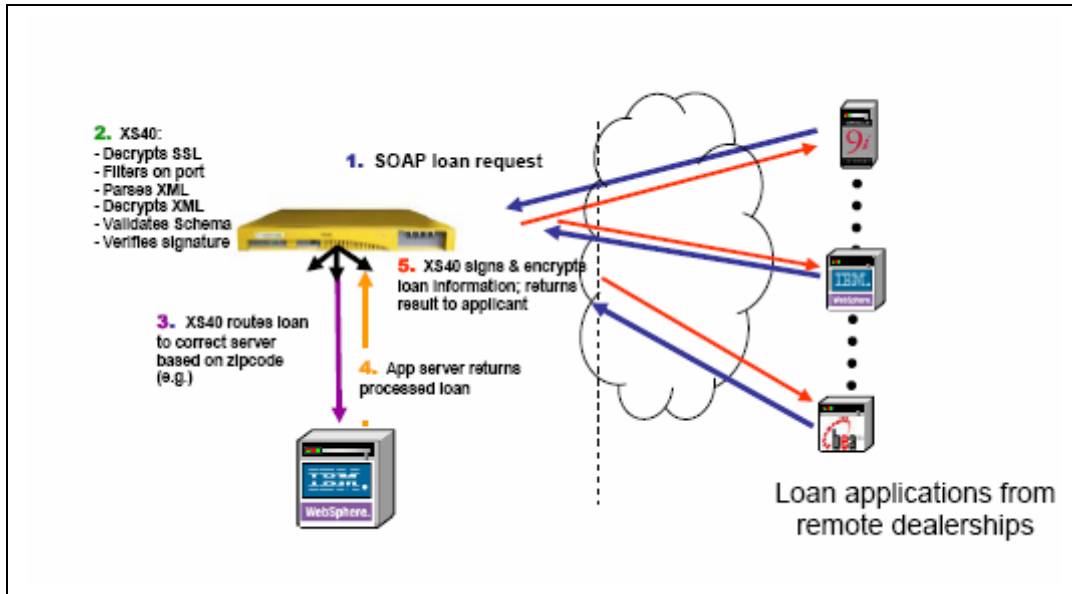
"I think scaling is a huge issue. DataPower was the fastest we could find and it came well within the performance envelope to run this application," Subramaniam said. He added that "software is too slow for the volume we are talking about. It can't hold a candle to the performance the XS40 provides. We don't want to be in a situation where we are managing stacks of software."

## SECURING LOAN APPLICATIONS WITH THE XS40

RouteOne has deployed the XS40 alongside application servers in a hosted facility to perform key XML Web Services security functions such as message verification, message signing, transport layer security and other auditing functions. In the application, remote dealers submit loan applications via SOAP for processing by RouteOne. Each submitted loan is sent over SSL and contains a digital signature for verification and auditing purposes.

These credit applications are fielded by the XS40 which performs signature verification and ensures the messages are valid for processing by the loan application server. The loan application server processes the applications and returns results to the XS40 which then signs each message for non-repudiation purposes. The signed documents are then sent over SSL to the remote dealerships. Each message and accompanying signature is logged so that RouteOne has an audit trail long after the transactions are complete. These functions prevent unauthorized third parties from gaining access to RouteOne's applications as illustrated below.

**FIGURE 2: WebSphere DATAPOWER XML Security Gateway XS40 SECURES CREDIT APPLICATIONS**



## SUMMARY

Many list application security and performance concerns as two major hurdles in the adoption of XML Web services. The latest SOA appliances and XML Security Gateways in particular provide several wirespeed XML processing and security features that augment existing network-level security.

With such infrastructure in place, enterprises can create permeable perimeters that enable the network administrators to protect valued enterprise resources while business owners are able to cut costs and gain revenue with innovative new e-business practices.

XML Web Services is being used in production applications today as evidenced by the innovative application being deployed by RouteOne using the WebSphere DataPower XML Security Gateway XS40. By implementing a purpose-built network device, RouteOne is ensuring that automotive dealers are able to access a multitude of financing choices for their customers more quickly and securely than possible with any competing solution.

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