



Jack Henry & Associates

EMC Global Services helps banking software vendor enhance product appeal with service-oriented approach

Jack Henry & Associates (JHA) is a leading provider of core systems and related applications for banks and credit unions across the United States. The company's five core systems and approximately 100 complementary products include teller automation, interactive voice response, proof of deposit, check imaging, Internet banking and bill payment, and branch sales automation. Through a network of facilities across the U.S., Missouri-based JHA also provides services such as training, outsourced data and item processing, and disaster recovery. The company serves close to 7,000 customers and employs about 3,000 people.

To increase the usability and integration capabilities of its product family in both mid-size and large banking institutions, JHA launched its jXchange initiative with help from EMC® Global Services, an expert in service-oriented architecture and a Microsoft Gold Certified Partner. The solution employs Microsoft .NET software to provide Web Services and other technologies that help JHA products integrate more efficiently into existing systems and provide a more compelling product set for new customers.

“The promise of jXchange is reduced overhead—both for our customers and for us—in building software applications, increased return on investment, and maximized service capability,” says Mark Forbis, general manager for Technology Services. “This results in higher customer satisfaction, easier product creation, and true multi-vendor/multi-platform openness.”

A services-oriented architecture helps facilitate long-term strategy

JHA is a dominant U.S. supplier of bank technology, with roughly 25 percent of small and mid-tier institutions using some combination of JHA products and services. In recent years, JHA executive management adopted a long-term strategy of expanding the company's market share in mid-tier institutions—defined as having from U.S. \$1 billion up to \$20 billion in assets—while also addressing the needs of large financial institutions for better integration of JHA systems and applications.

Mid-tier banks and large credit unions typically offer more diverse products and services and demand more software functionality than their smaller counterparts do, which also means they need better integration of systems and applications to control IT overhead and provide better customer service. At larger banks, the key demand is for systems with an open architecture that enables seamless integration of applications from a variety of vendors, which in turn provides banks with flexibility in their selection of software.

To follow through on its business strategy, JHA had to ensure its core applications could effectively communicate with essentially any possible third-party application that its large bank clients already had in place. These third-party applications run on a range of hardware and operating systems including UNIX and Windows, with the IBM xSeries and iSeries being the most common server hardware. At the mid-tier, JHA wanted to provide enhancements to assist its customers with their system integration needs and help positively affect their business growth.

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Seeking the most cost-effective, efficient method of providing integration between its core products, its complementary products, and applications from other software vendors, the company’s IT staff turned to EMC Global Services which specializes in service-oriented architecture, to speed their development efforts. To determine the best possible integration solution, JHA and EMC Global Services conducted several proof-of-concept tests. While Java-based software met some of JHA’s cost and basic interoperability requirements, it did not provide satisfactory performance for data-rich, transaction-intensive banking systems. The test providing the best results used Microsoft .NET software running on an Intel processor-based server.

JHA selected Microsoft .NET as the foundation for an “interoperability gateway” which the company calls jXchange. Components of the service-oriented architecture underlying jXchange include the Microsoft Windows Server 2003 operating system; SQL Server 2000, Web Services Enhancements (WSE), an add-on to the Microsoft .NET Framework; and Visual Studio .NET 2003 which provides developers with advanced Web service capabilities. JHA uses WSE for a variety of functions such as creating filters and increasing security for Web Services. JHA also uses Universal Discovery, Description, and Integration (UDDI) which act as a directory for helping publish and find Web Services.

By combining Microsoft .NET software, Web Services, and EMC Global Services’ expertise in a service-oriented architecture, JHA is addressing two key business goals: providing an IT infrastructure that will encourage banks to continue using and adding JHA products, while making it easier for JHA to improve the flow of information between its own applications as well as with third-party applications. This technology has helped the company execute its business strategy to become more pervasive in the mid-tier space.

“With the jXchange initiative, our products not only perform specific tasks, but also provide the primary hub for many of our customers’ banking systems, so there are many other non-Jack Henry products connecting to our systems,” says Jim Banks, Technology Research manager.

Interoperability also makes it easier for other vendors to integrate with JHA products.

“We believe that this technology strengthens our own integration and reuse of code within our own family of products,” adds Banks. “This will enable us to take advantage of a service-oriented architecture so we can deliver products that work better together. Microsoft .NET will also help us reduce the overall maintenance and integration costs of our systems. And that should help us sell the entire family of Jack Henry products to customers ranging from the smallest community bank to the largest institutions in the country.”

Greater market appeal

The JHA image as a banking technology solution company is enhanced by using an open, service-oriented architecture. By converting the JHA applications into open, Web Services-based products, the company can now provide more cost-effective yet powerful solutions for customers, while boosting its reputation as a premier provider of financial services technology.

“New customers usually want to know what kind of standards and technologies we are using,” says Forbis. “They want to hear the words ‘open’ and ‘Web Services,’ and they are always looking for a solution that will enable them to integrate multiple vendors through a solid middleware platform. Use of finance industry standards such as XML-based Web Services positions JHA as using the latest and best technology. For larger institutions, many of their existing applications already are compatible with XML, so that makes it easier to sell into this market segment.”

Fast Integration of new products and partners

As JHA introduces new products, developed internally, through partnerships, or through acquisitions, these applications will be assimilated much more quickly because the service layer will already be in place. The service layer also is open for integration with third-party applications.

“The bottom line is that our customers don’t want to spend a lot of development hours creating the integration that they need to make their particular set of technologies work together,” says Forbis. “A service-oriented architecture goes a long way toward providing a standards-based approach that makes integration issues much easier to deal with. This helps us on the sales side because we can approach a customer and say, ‘You can buy our document imaging product or someone else’s, and we can provide the integration to make it work.’ It’s a powerful sales tool that strengthens our relationship.”

Improved development times, higher quality software

JHA and EMC Global Services chose .NET and Web Services to help reduce development times and associated costs while enhancing software quality. In addition, the reusability of code in the jXchange service-oriented architecture is expected to be an enormous benefit to developers. With reusable code, JHA and non-JHA vendor software will be able to query and reuse business services that are arranged according to specific needs. Developers can first try reusing existing business services; they can then go on to build new software if they can’t find the code that they need.

“Through a modern, service-oriented integration solution, code reuse will become the norm and will form the foundation of trusted business process consistency in and between our own products, as well as a financial institution’s other products,” says Banks.

An added benefit is that due to the highly reusable nature of Web Services, less code needs to be tested. It is expected that the effectiveness of JHA’s development work will improve exponentially over time when there is less software to test, when there is better implementation and integration, and when there are well-defined requirements through integration software templates. Software will be higher quality and take less time to deliver.

The use of Microsoft .NET technology by the company is also expected to provide a strong foundation for the future.

“It just makes sense from the standpoint of our core and complementary products to be able to leverage a single service,” says Forbis. “We have a multi-year strategy and frankly, with the growth of Web Services and service-oriented architecture and standards, the timing is right. The industry as a whole is moving in this direction, and this puts us right there with our competitors—and maybe ahead of some of them.”



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Customer Profile
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