Microsoft's BizTalk Services Simplify SOA

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Microsoft's new BizTalk Services could have an impact on composite applications and service-oriented architecture, users and analysts say.

Microsoft has delivered a set of new services based on its BizTalk Server technology to help developers build new SOA-oriented applications.

Microsoft BizTalk Services, announced on April 24, include BizTalk Identity Services, which provide authentication, access control and federated identity based on the WS-Trust specification. The new BizTalk Relay Services facilitate the traversal and bridging of physical networks, enabling high-fidelity interconnection between cooperating systems for cross-organizational messaging behind firewalls.

The new Internet Service Bus provides a simple publish-and-subscribe message bus. And the new BizTalk Workflow Services enable the designing applications graphically by drawing flowcharts, said Steven Martin, director of product management in Microsoft's Connected Systems Division.

BizTalk Workflow Services provides a hosted instance of Windows Workflow Foundation, he said. The BizTalk Services SDK is available for download, and more information on the identity relay services can be found at identity.biztalk.net and connect.biztalk.net.

"BizTalk Services will decrease the edge node footprint while maintaining application access to valuable infrastructure services," said Chris Haddad, an analyst with Burton Group who was briefed on the new

strategy. "BizTalk services will increase reliability, scalability and security of service interactions while minimizing infrastructure investment and operational management overhead," he said.

Moreover, "BizTalk Services will eliminate in-house proliferation of infrastructure software while increasing a development team's ability to design and build secure event-driven services," Haddad said.

Meanwhile, the BizTalk Services idea is "very interesting because it tackles a number basic problems with basic low-level infrastructure that a lot of projects require or could use to extend their reach and capabilities," said Tomas Restrepo, a software developer at Devdeo, a software development shop and consulting firm in Medellin, Columbia.

"Things like security and relaying, to start with, are complex things to get right and usually involve a significant cost to develop," Restrepo said. "Because of this, people will usually cut corners and make simplifications and assumptions that can lower their costs, many times making their implementations not - so - robust or generic that they can be reused, particularly in a large scale."

In addition, Restrepo said the new BizTalk Services tackle complex infrastructure. "Being able to have scalable, secure services you can use, instead of having to build our own, is fantastic and really opens up a number of really interesting scenarios," he said. "A huge plus for the BizTalk Services is how they're being integrated with WCF - Windows Communication Foundation - through WCF extensions, which really lowers the barriers to entry and makes it easy for developers to use them to solve their infrastructure needs and concentrate on solving their business problem instead."

Moreover, the kind of services being built as part of the BizTalk Services initiative cover a broad set of scenarios, both on the consumer

and enterprise side of application development, Restrepo said. On the consumer side, it opens up some interesting opportunities for smart clients and peer-to-peer scenarios, he said. On the enterprise side it opens up some possibilities for easily connecting users across organizations taking advantage of the Internet, without having to invest in complex network infrastructure to securely connect the networks, Restrepo said.

And the new BizTalk Services drive home the point behind Microsoft's strategy of delivering software plus services.

Stephen Forte, chief technology officer at Corzen, in New York, said Microsoft's foray into the software-as-a-service world has "a cool differentiating factor: its hybrid approach."

Indeed, Forte said, "With such a huge commitment to the OS - operating system - and other installed software already, Microsoft is actually in a position to deliver software and a service on top of it. I actually think that the marketplace wants this and Microsoft is the only one who can deliver it in the short to medium term, giving Microsoft a competitive advantage."

Forte added that everyone thought Google and company would kill Microsoft Office. "But in reality, Google Docs are cool but I have issues today with using it offline and inside of a browser," he said. "So I use Google Spreadsheet to keep track of simple things but Microsoft Excel to do the more processor-intensive operations."

And from a technical perspective, the Microsoft approach "is also cool since you can push off some of the processing functions to the desktop's processor, not the server, allowing more scale and better performance for the user," Forte said.

Burton Group's Haddad said BizTalk Services is partly inspired by the Burton Group Infrastructure Services Model Template, which was first published in the spring of 2005. At the time, Burton Group noted that creating a boundaryless infrastructure for SOA requires a wide variety of infrastructure services.

"Infrastructure functionality should be externalized from proprietary application platforms into reusable services that can be accessed and shared by all applications," Haddad said. "Microsoft's software plus services strategy is a revolutionary step towards realizing the Infrastructure Services Model."

Restrepo said he expects that enterprises will use a mixture of both on-premises software and services, "with composite applications using services both internally and in 'the cloud.'"

Jason Bloomberg, an analyst with ZapThink, said, "For any customer who wants software, services, some combination of software and services, or the software needed to provide services to their own customers, Microsoft's got them covered."

Microsoft's Martin said the same way Microsoft has approached on-premises software, "we see an emerging ecosystem around services and a new class of composite applications."

In addition, there are three classes of services that will exist, Martin said. These consist of building-block services such as the new BizTalk Services; attached services, which feed into on-premises software; and finished services, which are built for delivery over the Internet - such as some of Microsoft's various Live services.

However, "it's important to think about these services in conjunction with our server usage," Martin said. "The ultimate goal is to improve a

customer's ability to utilize premise and services software. … And folks can make the decision to use on-premises software - or - develop applications themselves, or we can host for them. We use the same code base for both products and services."

Indeed, developers familiar with the .Net Framework 3.0 will find the tools in the BizTalk Services easy to use, said John Shewchuk, a Microsoft distinguished engineer who helped build the services.

And the new services also represent a culmination of sorts of the efforts Microsoft put into the creation of the standard Web services specifications in use today, said representatives of the company, based in Redmond, Wash. Those specifications laid the foundation for the new BizTalk services.

"I think that the accident of history is on Microsoft's side this time around," Forte said.