

# QUICK TAKE

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## IBM Reshapes The SOA Platform Market

New Offerings Expand IBM's Comprehensive SOA Platform Solutions

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### EXECUTIVE SUMMARY

This past September, IBM reshaped the service-oriented architecture (SOA) platform market with a bang with its announcements of WebSphere ESB, WebSphere Process Server, and a new version of the WebSphere Message Broker. Then in October, IBM announced the acquisition of DataPower Technology, adding an XML infrastructure appliance to its SOA platform. Although IBM was already an SOA powerhouse, these moves expand its capabilities and market presence as well as offer customers important new options for implementing SOA. IBM's moves also validate these emerging markets and will accelerate the consolidation of SOA application infrastructure.

### SAME SOA SONG, SECOND VERSE

IBM has been a leading vendor of SOA platforms for years, but it did not offer an enterprise service bus (ESB) product, preferring to argue that an ESB is a design pattern to be implemented with middleware that IBM already sold. As long as the ESB market was in a nascent state, with an unclear definition and only small competitors, this worked OK, especially with larger customers. However, as customers using ESB products from other vendors became more common — and they started to report successful implementations — IBM's position became less tenable. Within the space of only a few months, the market changed dramatically.

- **Other large vendors entered the ESB market.** With BEA Systems and Oracle chief among them, other vendors like SeeBeyond (now Sun Microsystems), TIBCO Software, and webMethods had already begun to change the market through repositioning of their integration suites as ESBs.<sup>1</sup> This created a competitive imperative for IBM to answer with ESB products — not only to compete but also to speed customer implementations and offer pricing and packaging that reflect the new ways that customers want to buy.
- **Cisco AON is bringing competition from a new direction.** Although it's too early to tell just how enthusiastically customers will embrace the new architectural thinking embodied in application-oriented networking (AON), its attempt to move middleware functions down into the network represents another potential threat to the dominance of platform vendors in the integration infrastructure market. This is despite the inclusion of IBM among Cisco's key partners for AON, which also include Actinal, SAP, and TIBCO.

### Competition Is The Mother Of Invention

This competition, coupled with customer requirements for easier ESB implementation at a lower cost, triggered significant investment by IBM that has brought forth a flood of new products, and one acquisition.

- **WebSphere ESB.** This is a lightweight ESB built entirely in Java on the WebSphere stack, which implements a full range of Web services standards and connectivity, with message transport based on Java Message Service (JMS), protocol switching, routing, XML transformation, event handling, and more. WebSphere ESB also supports early versions of the new Service Component Architecture (SCA) and Service Data Objects (SDO) specifications that IBM and several other vendors, such as BEA, Oracle, and SAP, recently announced. Notable by its absence is support for business process execution language (BPEL) and process orchestration, which IBM provides in other products, mainly WebSphere Process Server.
- **WebSphere Process Server.** Built on the same all-Java stack that WebSphere ESB is, the Process Server delivers tools and runtime services to automate business processes within an SOA. For example, it supports BPEL-based service orchestration, advanced process modeling, and early versions of the new SCA and SDO specifications. WebSphere Process Server V6 also combines the capabilities of the previous generation of products (WebSphere Business Integration Server V4 and WebSphere Business Integration Server Foundation V5) into a common runtime platform. WebSphere Process Server integrates BPEL, business rules, human activities, and services in a unified programming model.
- **WebSphere Message Broker V6.** This new version of the Message Broker product, based on the WebSphere MQ stack, delivers new support for Web services standards and SOA, as well as improved performance and expanded support for Java. For customers evolving to an ESB from WebSphere MQ, Message Broker is an attractive path that now supports the full Web services stack of an ESB. IBM positions Message Broker V6 as a *multiprotocol ESB*, and it delivers — but at the cost of some added complexity, compared with the WebSphere ESB/Process Server family.
- **WebSphere Business Modeler V6.** The latest release of the WebSphere business-modeling tool incorporates a new Eclipse-based Swimlane editor and viewer, Web-based collaborative process modeling, and support for key performance indicators. It also imports Visio diagrams; has process simulation; and exports models in BPEL, Unified Modeling Language, or Flow Definition Language.
- **DataPower XML Appliance.** IBM began by discussing an OEM relationship with DataPower, but it decided to buy the company instead. Although it's certainly not new for IBM to be in the hardware business, the XML appliance segment requires special hardware for XML acceleration, security, and integration, coupled with embedded software that enables very easy setup and configuration — and DataPower gives IBM a jump-start. IBM will likely take this idea of embedded middleware, security, and XML acceleration to other contexts, such as blades, and to the Power and Cell processors. The XML appliance series is now part of the WebSphere brand and will be integrated in a way that will enable hardware-based XML acceleration (and other appliance functions for security and integration) to be an integrated part of the WebSphere whole — in time.

DataPower's assets are worth more as part of IBM: Security can be tightened by deeper integration with other devices from IBM, eliminating the potential for a network path around an appliance to a separate asset being secured, that could have provided an exploit. Additional security synergy could result from integrating with IBM Tivoli ITCAM for SOA, Tivoli Access Manager, and Tivoli Federated Identity Manager. And the DataPower acquisition positions IBM to compete more effectively with Cisco AON, should that become necessary. Since IBM is also a partner of Cisco, even in the AON context, it's now possible to play both ends against the middle.

### IBM Now Has The Broadest SOA Platform Solution, But It Still Shares The Stage

IBM's SOA product set was already quite broad, but it now offers coherent platforms as well as coverage of all SOA application infrastructure categories, including the emerging ESB and XML appliance segments. However, the number of SOA products and the complexity of their positioning are somewhat daunting. For example, WebSphere ESB may provide most of what is needed for some new projects, but if service orchestration is required, Process Server will have to be added to the mix.

Other vendors also have product suites that separate orchestration from the bus, but the sheer breadth of IBM's offering, while a strength overall, is also a potential obstacle to quick implementation. Competing at the keep-it-simple end of the market will require IBM to focus on rapid and easy implementation, with just enough features to meet 80% of customers' needs — while avoiding the temptation to ladle on more and more features with each new release. The dynamic is similar to that of the market for a lightweight database management system, which addresses needs in niches like mobile clients, or embedded systems.

IBM's moves will put pressure on established but smaller players in these SOA segments but will not eliminate them entirely. Why? Because the complexity and uniqueness inherent in most usage scenarios for integration and security drives the need for niche vendors. Consider:

- **Integration.** Continuing consolidation of integration features into application and network platforms reduces the potential size and growth of the independent integration solution market but does not eliminate it. There are so many different kinds of integration problems; independent players can build sustainable strategies around dramatically better capabilities in niche segments, defined by unique technology, or vertical industries.
- **Security.** For security, uniqueness comes with the territory — not only because security, like integration, fills the space between other things. The high degree of variability in the collections of things that need to be joined with secure connections tends to create many opportunities for niche solutions, even as standards pervade key elements of the security infrastructure, such as identity, trust, and policy.

Although some independent players will survive, they will do so only within the context of a broad shakeup in the ecosystems in which they exist. These industry groupings, driven by standards, partner programs, open source projects, and innovation networks, will be the engines that will drive future growth in integration and security solutions. Alignment with one or more of these growing ecosystems will be critical to the survival of any independent vendor that is not large enough to build its own ecosystem.

## RECOMMENDATIONS

### ADD IBM'S ESB PRODUCTS TO YOUR SOA INFRASTRUCTURE SHORTLIST

Forrester will revisit the ESB market in the future with an update to our Forrester Wave™ ESB analysis that will reflect not only IBM's new capabilities but also new product versions from the other players in the market.<sup>2</sup> Until then, it is already clear that IBM has delivered a strong "first" entry to the market, based on its long-standing position as a leader in providing application infrastructure and as a key enabler of SOA. Any enterprise pursuing SOA will surely find IBM's ESB product line to be one of those that will offer an attractive way forward.

As Forrester has observed before, the major SOA platform ecosystems are forming around IBM, Microsoft, Oracle, and SAP, but other significant players like BEA Systems and Sun Microsystems continue to position independently as centers of their own ecosystems as well as in relation to these other major players. Part of the industry and customer dynamic that shapes the opportunity for SOA infrastructure in the future is the continuation of the heterogeneous nature of these platforms in customer shops, creating spaces between the major platforms that can often be uniquely filled by smaller players. While it's best to designate one of the major platforms as the primary backbone for integration and security when possible, your organization may find that difficult to accomplish, making a more federated approach necessary.

If your organization is one that will be likely to require federation of SOA infrastructure in the future, recognize that the interoperability standards required to make this possible are only in the early stages of gestation. The work of the Web Services Interoperability Organization has been good but slow, and much more than the basic wire-level interoperability that has been achieved so far will be needed to allow easy federation of ESBs and security infrastructure. Therefore, proceed cautiously with lowered expectations as to how much federation can be achieved today — typically what is enabled by each vendor with regard to specific platforms, driven by customer requirements.

## ENDNOTES

- <sup>1</sup> The emerging ESB market is heating up. To assess the state of the ESB market and see how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of top ESB vendors using 100 criteria. The result: The market has two segments with different leaders in each. The ESB suites segment is led by BEA Systems, Cape Clear Software, Fiorano Software, and Sonic Software, whereas the comprehensive ESB suites segment is led by Oracle, Sun Microsystems, and TIBCO. See the November 15, 2005, Tech Choices “[The Forrester Wave™: Enterprise Service Bus, Q4 2005](#).”
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