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The Forrester Wave™: Standalone SOA And Web Services Management Solutions, Q4 2007

by Randy Heffner
for Enterprise Architecture Professionals



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Progress Software And AmberPoint Lead; Each Vendor Has Unique Strengths

by **Randy Heffner**

with Simon Yates and Kahini Ranade

EXECUTIVE SUMMARY

Forrester evaluated leading standalone service-oriented architecture (SOA) and Web services management solution (or simply, SOA management) vendors across 100 criteria and found that Progress Software and AmberPoint, by virtue of their singular focus on the space, have the richest and cleanest solutions. IBM's offering is also strong, and it has many points of integration with the rest of IBM's Tivoli product line. SOA Software's solution includes SOA governance, but it lacks deep visibility into service implementations. Hewlett-Packard's solution has the best monitoring console and availability reporting, as well as integration into the vendor's IT management products. Java and .NET users will find much to like in CA's solution, which has the deepest visibility for service implementations centered on Java and .NET. When evaluating options for SOA management, in addition to these standalone solutions, it is very important to consider the embedded SOA management features of your existing application platform and integration platform vendors.

TABLE OF CONTENTS

2 Strategic SOA Needs Robust SOA Management

Approach SOA Management As A Solution Space, Not A Product Space

Standalone SOA Management Is A Rapidly Evolving Market

Three IT Management Players, Three Pure-Plays

6 SOA Management Solutions Evaluation Overview

8 Two Vendors Lead, But All Have Unique Value

10 Vendor Profiles

Leaders Have All-Around Strong Functionality

Strong Performers Each Have Unique Value

Contenders Focus Deeply On Core SOA Management

12 A View Considering Core SOA Management Only

14 Supplemental Material

NOTES & RESOURCES

Forrester conducted product evaluations during July and August 2007 and interviewed 32 vendor and user companies, including: AmberPoint, BEA Systems, CA, Hewlett-Packard (HP), IBM, Microsoft, Oracle, Progress Software, SAP, SOA Software, Software AG, Sun Microsystems, TIBCO Software, and Vitria Technology.

Related Research Documents

["Embedded SOA Management Solutions, Q4 2007"](#)
October 22, 2007

["When To Use Which Type Of SOA Specialty Product"](#)
January 29, 2007

["SOA Investment Strategies"](#)
May 19, 2006

["Strategic Architecture Development In An SOA World"](#)
March 15, 2006

STRATEGIC SOA NEEDS ROBUST SOA MANAGEMENT

Sooner or later, any comprehensive, enterprise-level, strategic SOA platform will require an SOA and Web services management solution.¹ Forrester defines an SOA management solution as:

Software infrastructure to ensure that the production operation of SOA-based services delivers on quality of service (QoS) expectations for technical performance and availability and, optionally, on QoS for security, business operations, and general policy compliance.

Frequently, industry discussion will use the term Web services management (WSM), but Forrester finds this too restrictive and shortsighted. Instead, Forrester calls the space SOA management, which acknowledges that:

- **SOA management is about more than just Web services.** For reasons of performance, reliability, or maturity, many firms find it necessary to deliver SOA-based services using both Web services and other protocols such as Java Message Service, native .NET protocols, and Java RMI. To be sure, the broad and open ecosystem of Web services is very important, as is the flexibility provided by XML. However, with today's levels of Web services maturity, Web services can't meet all SOA demands.²
- **SOA management goes much deeper than flows of requests and responses.** Successful production operation of SOA requires visibility into and control of much more than just the flow of service requests and responses. It must also have a view into application components, process flows involving multiple services, database calls, and multiple types of SOA infrastructure such as application servers, enterprise services buses (ESBs), and SOA appliances, to name a few such extended visibility points.
- **SOA management has strategic visibility into business operations.** When managing strategic SOA-based business services, you have direct visibility into something much more important than a collection of low-level technical IT assets. Viewing the flow of requests into and responses from your strategic business services amounts to direct, real-time visibility into meaningful, measurable units of business activity. Business users may have a keen and direct interest in any of these streams of business activity.

Thus, while the core functionality of SOA management focuses on performance and availability management of Web services traffic, the full functionality of the space is much broader. As you examine product alternatives, keep your design focus on the broader requirements of SOA management so that whatever your selected product's strengths and limitations are, you can develop plans for filling in any missing elements.

Approach SOA Management As A Solution Space, Not A Product Space

When enterprise architects start evaluating SOA management, the first and most important thing is to pursue it as a *solution* space and not as a *product* space. This is important because a solution perspective provides a broader range of options for crafting the most effective, most economical, and least risky way to evolve the SOA management functionality that your enterprise needs. What's the difference between a solution-based and a product-based approach? In a product-based approach, you restrict your options for SOA management to purchasing a standalone product that is styled as an SOA management or WSM product. In a solution-based approach, you will also:

1. Evaluate a set of products that function together as a standalone solution for SOA management.
2. Evaluate the extent to which your existing application platform or integration platform might serve your near- to midterm requirements for SOA management.

Several platform vendors, such as Oracle, Software AG, and Sun Microsystems, do not provide a standalone SOA management product but do have SOA management features and functions embedded in their application and integration platforms. Some embedded SOA management solutions, like BEA Systems and TIBCO Software, include a resold or OEMed version of a standalone SOA management product.

In a complete evaluation, include both standalone and embedded SOA management solutions. While an embedded SOA management solution may or may not provide the full breadth and depth of functionality that a standalone solution provides, it may well provide enough functionality to meet your immediate needs, allowing you to delay buying a standalone solution until the market is more mature and your requirements are better understood.

In our previous Forrester Wave™ analysis of SOA management, we included both standalone and embedded SOA management solutions.³ Since then, several more vendors have emerged with interesting solutions for embedded SOA management, and so, for practical reasons, we have restricted this evaluation to standalone solutions only. To provide a basis for a complete evaluation, this report contains a full Forrester Wave analysis of standalone solutions, and a corollary report highlights the major strengths and weaknesses of several embedded solutions.⁴

Standalone SOA Management Is A Rapidly Evolving Market

Although there are strong SOA management solutions available in the market, Forrester still characterizes the maturity of this market as medium, at best, because:

- **Standards are not yet stable.** For a few short months, it appeared that OASIS's Web Services for Distributed Management (WSDM) standard might carry the day. But then Hewlett-Packard (HP), IBM, Intel, and Microsoft rendered WSDM inert by announcing a plan to supersede

WSDM and other specifications with a restructured set of specifications that would integrate work from the WS-Management specification. In addition to the reconciliation of WSDM and WS-Management, at least 10 other closely related specifications have yet to be finalized as standards, including WS-MetadataExchange, WS-Policy, WS-PolicyAttachment, WS-ResourceTransfer, WS-Transfer, and WS-EventingNotification. Standardization of these specifications will drive change into products, and standardization is a messy process that, judging by past Web services standardization efforts, could require up to three more years — after which it will take more time to have solid, interoperable implementations in products.

- **Policy management may become a separate product category.** With SOA's heavy focus on a business services layer, a great deal of attention is (appropriately) focused on the design abstraction of service interfaces. This attention has, among other things, highlighted the value and flexibility of separately specifying policies for security, management, business monitoring, and more and subsequently attaching them to services. This leads to at least three instability factors: 1) SOA management solutions are rapidly evolving their policy management feature-function; 2) standalone policy management solutions are emerging; and 3) the role of SOA service life-cycle management tools in policy management is not yet fully developed.
- **The lines between SOA governance and SOA management are blurring.** SOA management is clearly part of the overall domain of SOA governance and, indeed, it is sometimes referred to (or associated with) the term “runtime SOA governance.”⁵ But the depth of overlap and potential integration obscures the distinction between the two as product categories. As if to highlight the blurring boundaries, as we did this Forrester Wave analysis, more than one vendor would have preferred that Forrester evaluate SOA management and SOA governance in one combined analysis.

Three IT Management Players, Three Pure-Plays

These factors, combined with the dynamics of a rapidly evolving SOA market in general, mean that the scope and packaging of SOA management solutions keep changing. There are two major categories of vendors in the market for standalone SOA management solutions:

1. **Big vendors with major enterprise IT management product lines.** Enterprise IT management vendors can approach SOA as one more thing to manage, and they have a unique opportunity to deeply integrate SOA management into a comprehensive solution for managing all IT assets and infrastructure. The three Forrester Wave participants in this category are CA, HP, and IBM.
2. **Smaller pure-plays that focus on SOA.** The smaller pure-plays have a unique opportunity to build comprehensive and focused SOA management with deep functionality in a tightly bound, easy-to-consume package. The three Forrester Wave participants here are AmberPoint, Progress Software, and SOA Software.⁶

But this two-segment model oversimplifies the differences and nuances between the solutions. Aside from the existence of both standalone and embedded solutions, some of the key differences between solutions include:

- **Depth and breadth of visibility into service implementations.** When things go wrong with your services, problem resolution often requires knowledge that goes beyond service request and response flows. Solutions vary as to how much visibility, if any, they provide into the layers below the service interface. For example, suppose that a complex service has slow response time and its implementation has a Java layer maintained by team A, a VB.NET layer from team B, and a database run by team C. A solution with deep visibility can immediately show the front-line support team which of the three is the biggest part of the service's response time, thus telling them which team to call. Without it, they would have to call all of the development teams and have them all sort out the source of the problem (which may often be slowed down by much finger-pointing).
- **Types of products included as part of an SOA management solution.** Because the functional scope of individual products varies widely in this space, this Forrester Wave is a *solutions* evaluation — meaning that the participants may respond with a *set* of products as long as each additional product contributes value for standalone SOA management. Thus, the solutions in this evaluation may go beyond SOA management and include major functionality for SOA governance, SOA appliances, security infrastructure, Web application monitoring, SOA testing, and business monitoring. These extra functions have but a very small impact on our analysis — our evaluation focuses on SOA management and closely related functions that are present in multiple solutions.
- **Extent of functionality beyond core SOA management.** At its core, SOA management is about ensuring the performance and availability of SOA-based services. A second ring of functionality, which we call extended SOA management, brings in security, generalized policy management, and certain aspects of SOA governance. A third ring includes lightweight business activity monitoring, service mediation and integration, and other features. The solutions vary across these three rings of functionality, with some focusing only on core SOA management.
- **Ties to and integration with SOA governance.** As a result of the current market fuzziness regarding the boundaries between SOA management and SOA governance, SOA management solutions intersect with SOA governance in different ways. Some vendors include their SOA governance solution “in the box” with their SOA management solution, while others keep their SOA governance solution separate and provide built-in integration between the two.

These and other differences emphasize the need for architects to understand the full scope of SOA management before buying anything. Also, as you assess priorities for SOA management, there's yet one more option in addition to standalone and embedded SOA management. If the most important

need is visibility into the flow of service implementations across technology platforms, then a product such as OpTier's CoreFirst may help. Like most of the products in this evaluation, CoreFirst can track the flow of individual service requests and transactions across platform boundaries, providing an end-to-end view of performance.

SOA MANAGEMENT SOLUTIONS EVALUATION OVERVIEW

To assess the state of the standalone SOA management solutions market and see how the vendors stack up against each other, Forrester evaluated the top standalone SOA management solutions vendors. After examining past research, user need assessments, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria (see Figure 1). We evaluated vendors against approximately 100 criteria, which we grouped into three high-level buckets:

- **Current offering.** This section evaluates the functionality of the solution in three major sections: 1) core SOA management, including performance and availability management, core solution architecture, tooling, problem isolation and logging, and the solution's architecture for integrating with other IT infrastructure; 2) extended SOA management, including security, policy management, and production governance; and 3) other SOA features, including business activity monitoring, service mediation, and version resolution. In addition, for clients that want to consider a broader SOA platform beyond SOA management, this section identifies other SOA infrastructure elements that each vendor may have (although these are not weighted into Forrester's evaluation of SOA management).
- **Strategy.** This section evaluates each vendor's strategy by assessing the depth, breadth, and concreteness of its public plans for further development of its SOA management solution, its overall view of enterprise requirements for SOA management, and its pricing strategy.
- **Market presence.** To assess each vendor's market presence, we examined the installed base for SOA management and other SOA infrastructure, revenue, services available from the vendor itself and from third parties, global presence, and technology partnerships.

Forrester included six vendors in the assessment: AmberPoint, CA, HP, IBM, Progress Software, and SOA Software. Each of the solutions evaluated has (see Figure 2):

- **Substantial core SOA management functionality.** Each solution has a strong focus on performance and availability management for SOA-based services.
- **No credibility as an application or integration platform.** To ensure that each solution in the Forrester Wave may be considered as a candidate by any potential customer, we excluded SOA management alternatives like Oracle, Software AG, and TIBCO Software that are embedded in application or integration platforms. Forrester believes that although customers who

already own a platform will and should evaluate its embedded SOA management features, very few would buy an application or integration platform when they are really looking for SOA management. Embedded SOA management solutions are highlighted in a separate Forrester report.

- **Credibility as a standalone solution.** Each vendor’s solution is a credible offering even if you buy no other products from the vendor. In cases where one vendor resells another vendor’s SOA management solution, the reselling vendor must add enough value to the solution to create a compelling reason why a customer would buy *only* the SOA management solution from the reseller. No reselling vendors met this criterion.

Figure 1 Evaluation Criteria: Standalone SOA And Web Services Management Solutions

| CURRENT OFFERING | |
|-----------------------------------|---|
| Products included | What specific product or set of products does the vendor offer as its complete standalone service-oriented architecture (SOA) and Web services management (SOA management) solution? |
| Core SOA management | How rich is the functionality for providing integrated and comprehensive control of service operations, including performance, availability, policy enforcement, alerting, and problem determination? |
| Extended SOA management | How deep and rich are the features for non-core SOA management functionality (focusing on policy, security, and governance)? |
| Additional SOA features | What depth and richness for other capabilities of an SOA platform does the solution provide? |
| Other SOA infrastructure products | What other SOA infrastructure is available as part of the vendor’s overall product set? |
| STRATEGY | |
| Product strategy | How is the vendor approaching the SOA management market in terms of near-term solution plans and long-term focus? |
| Cost | What is the cost of the solution? |
| MARKET PRESENCE | |
| Installed base | How large is the installed base of customers for this solution and for all SOA products? |
| Total revenue | What is the overall market presence of this vendor (including all types of products) based on total revenue over the period from Q2 2006 to Q1 2007? |
| Services | How strong are implementation and training services for the core SOA management solution? |
| Global presence | How strong is the global presence for sales, support, training, and consulting services for SOA management? |
| Technology partners | How strongly do technology partners support this product? |

Source: Forrester Research, Inc.

Figure 2 Evaluated Vendors: Solution Information And Selection Criteria

| Vendor | Solution set |
|-------------------|--|
| AmberPoint | AmberPoint Express, SOA Management System 6.0, SOA Validation System 6.0 |
| CA | CA Wily Customer Experience Manager 4 (CEM), CA Wily Introscope 7.1, CA Wily SOA Manager 7.1 |
| Hewlett-Packard | SOA Manager 2.50, IDM Access & Federation Starter Kit 1.0 (IDMAF, a software bundle including Select Access, Select Federation, Select Audit), Business Availability Center for SOA 7.00 (BAC, a software bundle including SiteScope, Business Process Monitor, Application Mapping, Service Level Management, Diagnostics, TransactionVision, Business, Process Insight, uCMDB) |
| IBM | IBM Tivoli Composite Application Manager for SOA 6.1 (ITCAM for SOA), IBM Tivoli Federated Identity Manager 6.1.1 (TFIM), IBM WebSphere DataPower XI50 3.6.0 |
| Progress Software | Progress Actional for Active Policy Enforcement 7 (APE), Progress Actional for Continuous Service Optimization 7 (CSO), Progress Actional for SOA Operations 7 (a subset of CSO) |
| SOA Software | SOA Software Network Director 5.1, SOA Software Service Manager 5.1, SOA Software Workbench 5.1 |

Solution section criteria

Substantial core SOA management functionality

No credibility as an application or integration platform

Credibility as a standalone solution

Source: Forrester Research, Inc.

TWO VENDORS LEAD, BUT ALL HAVE UNIQUE VALUE

The evaluation uncovered a market in which (see Figure 3):

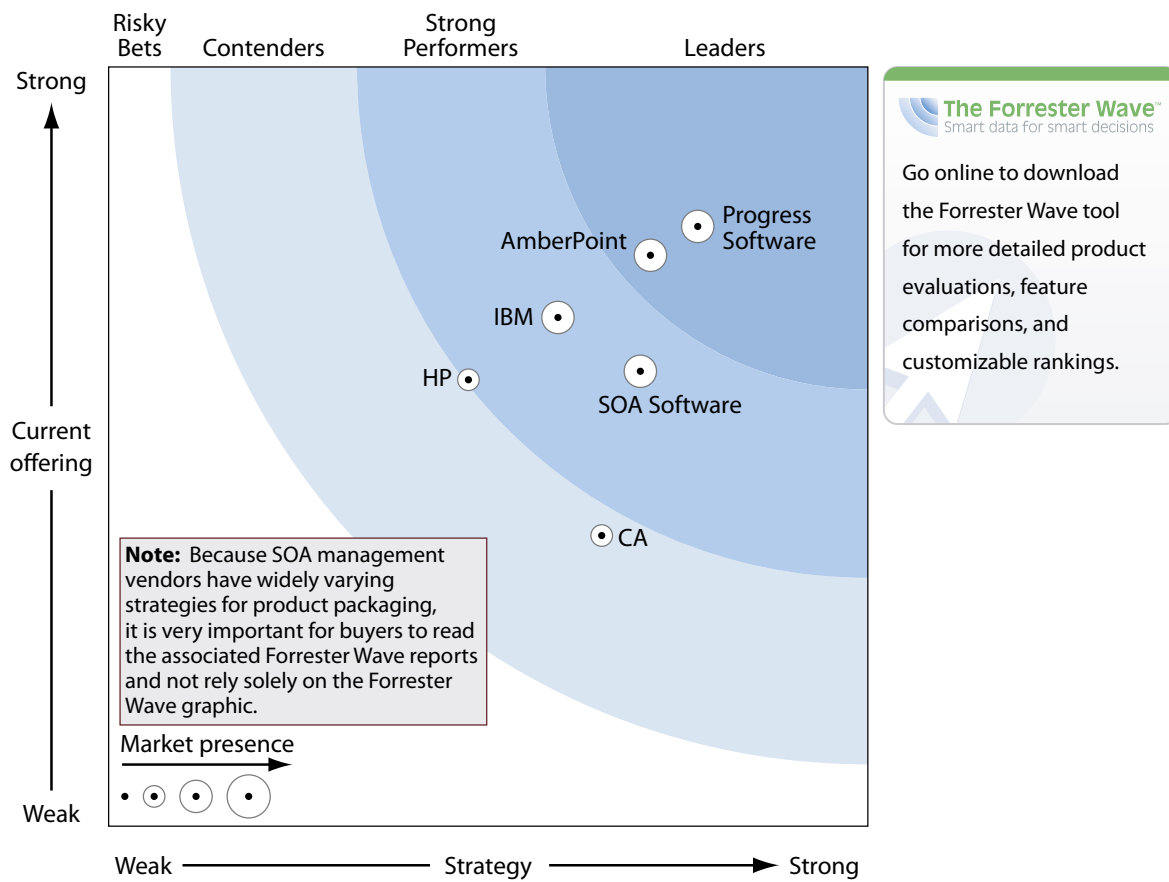
- **Progress Software and AmberPoint lead the pack.** These two vendors have the greatest breadth and depth across all three major current offering sections. They have clean packaging, focused solution sets, and a good grasp of enterprise SOA management requirements. Both vendors fall in the Forrester Wave's Leader category. They have many similar strengths and weaknesses, but either one may lead on any individual criterion. Progress's active SOA management and extensibility are uniquely strong, while AmberPoint's architecture for policy management and OEM and reseller channels lead the market.
- **HP, IBM, and SOA Software offer competitive options.** Generally, these three Strong Performers score well across our criteria but have a few weak spots here and there. Each has a unique value proposition that may overcome any weaknesses. Both IBM and HP have deep integration into their own enterprise IT management infrastructures, so their SOA management

solutions will offer the advantage of a unified IT management platform for their existing customers. SOA Software’s solution includes an SOA service life-cycle management (SOA governance) solution, which potential customers may want to evaluate simultaneously with SOA management.

- **CA targets and provides strong core SOA management for Java and .NET.** Based only on core SOA management criteria, CA’s solution would fall into the Forrester Wave’s Strong Performer category — and it has the deepest visibility into SOA environments that are heavily centered on Java and .NET application servers. However, because CA’s solution does not target extended SOA management or other SOA features, it falls to the Contender category when the full criteria are considered.

This evaluation of the SOA management solutions market is intended to be a starting point only. Readers are encouraged to view detailed product evaluations and adapt the criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool.

Figure 3 Forrester Wave™: Standalone SOA And Web Services Management Solutions, Q4 '07



Source: Forrester Research, Inc.

Figure 3 Forrester Wave™: Standalone SOA And Web Services Management Solutions, Q4 '07 (Cont.)

| | Forrester's Weighting | AmberPoint | CA | Hewlett-Packard | IBM | Progress Software | SOA Software |
|-----------------------------------|-----------------------|------------|------|-----------------|------|-------------------|--------------|
| CURRENT OFFERING | 50% | 3.76 | 1.92 | 2.94 | 3.35 | 3.95 | 3.00 |
| Products included | 0% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Core SOA management | 65% | 3.90 | 2.82 | 3.33 | 3.46 | 4.16 | 2.86 |
| Extended SOA management | 30% | 3.65 | 0.15 | 2.23 | 3.20 | 3.63 | 3.38 |
| Additional SOA features | 5% | 2.55 | 0.90 | 2.10 | 2.88 | 3.15 | 2.55 |
| Other SOA infrastructure products | 0% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| STRATEGY | 50% | 3.57 | 3.25 | 2.37 | 2.95 | 3.88 | 3.50 |
| Product strategy | 60% | 3.78 | 3.38 | 2.95 | 3.58 | 4.03 | 3.10 |
| Cost | 40% | 3.25 | 3.05 | 1.50 | 2.00 | 3.65 | 4.10 |
| MARKET PRESENCE | 0% | 3.94 | 2.89 | 2.92 | 3.69 | 3.17 | 3.05 |
| Installed base | 40% | 4.25 | 2.80 | 3.40 | 3.60 | 3.20 | 3.90 |
| Total revenue | 15% | 2.00 | 5.00 | 5.00 | 5.00 | 4.00 | 2.00 |
| Services | 15% | 4.40 | 1.50 | 2.20 | 3.50 | 3.80 | 3.00 |
| Global presence | 15% | 4.50 | 1.83 | 2.00 | 5.00 | 3.00 | 3.17 |
| Technology partners | 15% | 4.00 | 3.50 | 1.20 | 1.50 | 1.80 | 1.80 |

All scores are based on a scale of 0 (weak) to 5 (strong).

Source: Forrester Research, Inc.

VENDOR PROFILES

Leaders Have All-Around Strong Functionality

The two leaders in our analysis are pure-plays, and both score consistently well across our criteria. Of the two:

- Progress Software has stronger active management and solution extensibility.** Progress' Actional product line scores consistently well across nearly all of our criteria.⁷ Its particular strengths include active SOA management features, software development kits (SDKs) for extending the solution to cover new requirements, integration with identity management solutions, integration with enterprise IT management, and business activity monitoring. Actional's place in the market is somewhere between that of a pure-play vendor and a platform vendor. Although Actional is part of Progress Software's broader product line and has the financial backing of a \$450 million IT vendor, Progress' philosophy is that each of its products must aim to be a strong standalone player in the market.⁸

- **AmberPoint has the most channels to market and the best policy management engine.**

AmberPoint also scores consistently well across almost all of our criteria. AmberPoint has the most mature architecture for policy management, especially in its extensibility of policy specification and its ability to deploy policy to other vendor products. Although it is a smaller pure-play vendor, this is offset by AmberPoint's market-leading position in terms of reseller and OEM arrangements, which gives it a broad range of channels to market. Its policy management is strong enough that TIBCO embeds AmberPoint's policy management engine in its strategic ActiveMatrix product line. BEA Systems rebrands and resells AmberPoint as part of its AquaLogic product line. SAP has made an equity investment in AmberPoint. Other AmberPoint strengths include its visibility into a variety of SOA software infrastructure types, such as ESBs and SOA appliances, and its business activity monitoring.⁹

Strong Performers Each Have Unique Value

Each of the Strong Performers in our Forrester Wave analysis has important and unique strengths that may make its solution more attractive to particular buyers. Among these strengths:

- **IBM has deep security architecture and strong ties to Tivoli enterprise IT management.**

IBM's solution is composed of a management product, an SOA appliance, and a security federation product. The underpinnings of the management product are the same as IBM's full Tivoli line of enterprise IT management products, giving the SOA management solution deep and strong coherence with the full family of Tivoli management products. Similarly, the security federation product is built on IBM's WebSphere foundation. IBM's solution generally scores well across our evaluation criteria, with particular strengths in its security integration and federation, ITIL guidance, library of discovery adapters, integration with IBM's configuration management database (CMDB), and acceleration of XML processing (via the SOA appliance). IBM scores better than the Leaders in some areas and scores well in most areas, but the Leaders often have a slight edge.¹⁰

- **SOA Software has strong SOA governance ties but weak service implementation visibility.**

Although this Forrester Wave does not evaluate SOA governance per se, the biggest strength of SOA Software's solution is its foundation in its SOA governance solution, which is included as part of its SOA management solution. This strengthens SOA management features like contract management and capacity planning — the solution provides the ability to assess service capacity by reporting actual usage of services against the expected usage of various service consumers. SOA Software scores well across many of our criteria, although some scores are negatively affected because SOA Software focuses only on visibility into service requests and responses, requiring customers to go to other tools for visibility into actual service implementations. In addition to contract management and capacity planning, other particular strengths include standards support and mediation between message exchange patterns, such as a synchronous consumer accessing an asynchronous service.¹¹

- **HP has deep ties to its enterprise IT management and SOA governance solutions.** HP's solution includes a focused SOA management product, a bundle of enterprise management software tuned for SOA, and a bundle of identity management and security products. Thus, HP's SOA management solution has strong ties to HP's enterprise IT management infrastructure *and* includes major elements of IT management infrastructure. HP's solution also integrates with its SOA governance solution based on the Systinet 2 product. HP generally achieves good scores across our criteria, although in some cases, it draws the line between SOA governance and SOA management differently than other vendors. As a result, HP scores lower on some criteria because its strongest functionality is part of its SOA governance and service life-cycle management solution, rather than its SOA management solution. Thus, if Forrester did a combined evaluation for SOA management plus service life-cycle management, HP might well score higher. As it is, HP's particular strengths in this evaluation include its availability management, metamodel extensibility, monitoring console, and business monitoring.¹²

Contenders Focus Deeply On Core SOA Management

The one Contender in our Forrester Wave analysis is rated lower only because its solution has a deeper but narrower focus on core SOA management. To wit:

- **CA has the deepest monitoring of Java- and .NET-centric services.** Because of its deep instrumentation of Java and .NET virtual machines, CA's solution has the deepest visibility into and monitoring of SOA-based services implemented on Java EE and .NET platforms. By CA's intent, the solution does not include deep functionality for extended SOA management, nor does it focus on active management of service scalability and availability, instead leaving these functions to the implementation of the services themselves. Thus, in the complete set of criteria, CA scores lower than other vendors. Considering only our criteria for core SOA management, CA's solution achieves very good ratings for monitoring, reporting, and problem-diagnostic-related features.¹³

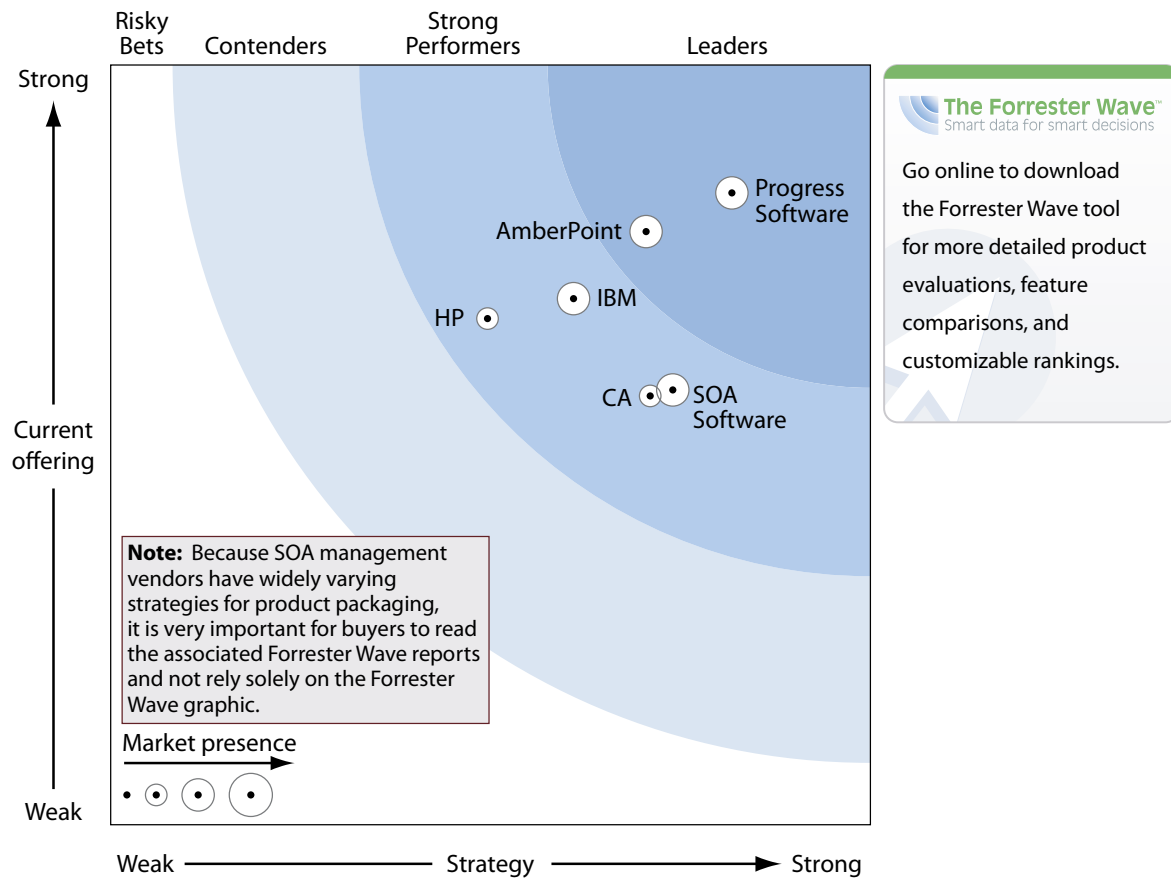
A VIEW CONSIDERING CORE SOA MANAGEMENT ONLY

In Forrester's three rings of SOA management functionality, the core SOA management ring is the one with the least overlap with other SOA infrastructure. In the extended SOA management ring and the additional SOA features ring, many of the functions provided by SOA management solutions may be provided by infrastructure such as SOA appliances, application servers, enterprise service buses, SOA life-cycle governance, business activity monitoring, and more. Thus, it is useful to take a focused look at core SOA management.

Using the Forrester Wave's ability to alter criteria weightings, we examined how the solutions measure up when considering only core SOA management criteria (see Figure 4). In this view, there is less space between the different vendor solutions. Most notably, CA's position moves solidly into

the Strong Performer category. As noted above, CA's solution focuses heavily on monitoring and visibility, so removing criteria for extended SOA management and other SOA features enhances the vendor's position. HP's and Progress Software's positions also notably improve, indicating a certain focus on core SOA management features relative to other parts of their individual solutions. By contrast, AmberPoint's, IBM's, and SOA Software's positions move very little.

Figure 4 Forrester Wave™: Standalone SOA Management, Core SOA Management Only, Q4 '07



Source: Forrester Research, Inc.

Figure 4 Forrester Wave™: Standalone SOA Management, Core SOA Management Only, Q4 '07 (Cont.)

| | Forrester's Weighting | AmberPoint | CA | Hewlett-Packard | IBM | Progress Software | SOA Software |
|-----------------------------------|-----------------------|------------|------|-----------------|------|-------------------|--------------|
| CURRENT OFFERING | 50% | 3.90 | 2.82 | 3.33 | 3.46 | 4.16 | 2.86 |
| Products included | 0% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Core SOA management | 100% | 3.90 | 2.82 | 3.33 | 3.46 | 4.16 | 2.86 |
| Extended SOA management | 0% | 3.65 | 0.15 | 2.23 | 3.20 | 3.63 | 3.38 |
| Additional SOA features | 0% | 2.55 | 0.90 | 2.10 | 2.88 | 3.15 | 2.55 |
| Other SOA infrastructure products | 0% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| STRATEGY | 50% | 3.53 | 3.55 | 2.48 | 3.05 | 4.08 | 3.69 |
| Product strategy | 60% | 3.88 | 3.88 | 3.00 | 3.75 | 4.13 | 3.25 |
| Cost | 40% | 3.00 | 3.05 | 1.70 | 2.00 | 4.00 | 4.35 |
| MARKET PRESENCE | 0% | 3.94 | 2.89 | 2.92 | 3.69 | 3.17 | 3.05 |
| Installed base | 40% | 4.25 | 2.80 | 3.40 | 3.60 | 3.20 | 3.90 |
| Total revenue | 15% | 2.00 | 5.00 | 5.00 | 5.00 | 4.00 | 2.00 |
| Services | 15% | 4.40 | 1.50 | 2.20 | 3.50 | 3.80 | 3.00 |
| Global presence | 15% | 4.50 | 1.83 | 2.00 | 5.00 | 3.00 | 3.17 |
| Technology partners | 15% | 4.00 | 3.50 | 1.20 | 1.50 | 1.80 | 1.80 |

All scores are based on a scale of 0 (weak) to 5 (strong).

Source: Forrester Research, Inc.

SUPPLEMENTAL MATERIAL

Online Resource

The online versions of Figure 3 and Figure 4 are Excel-based vendor comparison tools that provide detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave

Forrester used a combination of three data sources to assess the strengths and weaknesses of each solution:

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.
- **Product demos.** We asked vendors to conduct demonstrations of their product's functionality. We used findings from these product demos to validate details of each vendor's product capabilities.

- **Customer reference calls.** To validate product and vendor qualifications, Forrester also conducted reference calls with three of each vendor's current customers.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) solution fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and solutions that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their solutions against our set of criteria, we gather details of solution qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then score the vendors based on a clearly defined scale. These default weightings are intended only as a starting point, and readers are encouraged to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as solution capabilities and vendor strategies evolve.

ENDNOTES

- ¹ Forrester has published numerous reports on many aspects of SOA. See the June 8, 2007, "[Topic Overview: Service-Oriented Architecture](#)" report.
- ² To build Web services that operate with high quality of service, the industry needs many specifications besides the core Web services standards, such as those for management, transactions, and advanced security. These are in development and are only mature enough only for aggressive technology adopters at this point. See the December 14, 2006, "[Your Strategy For Web Services Specifications](#)" report. In addition, the other reports in the "Status Of SOA And Web Services Specifications" series provide good information on this topic.
- ³ The previous Forrester Wave analysis for SOA management should not be used to compare vendor positions over time. Because of changes in the market, the current evaluation has a different scope, updated criteria, updated rating scales, and a different set of vendors. Thus, the two do not form a valid time series comparison. See the February 10, 2006, "[The Forrester Wave™: SOA And Web Services Management, Q1 2006](#)" report.

- ⁴ In addition to the standalone SOA management solutions evaluated in this Forrester Wave, architects should evaluate the embedded SOA management features of their existing application and integration platforms. See the October 22, 2007, "[Embedded SOA Management Solutions](#)" report.
- ⁵ A comprehensive view of SOA governance includes the processes, organizational structures, infrastructure, policies, and communication channels for all aspects of your SOA strategy. SOA governance ranges from service portfolio and SOA platform planning to service design, implementation, and operation. See the June 12, 2006, "[The Scope And Focus Of SOA Governance](#)" report.
- ⁶ Technically speaking, Progress Software is not a pure-play because the vendor has multiple other product lines besides SOA management. Forrester groups Progress with the pure-plays because: 1) Progress does not have an enterprise IT management platform, and 2) each division at Progress is managed much like an independent software entity.
- ⁷ In early 2006, Progress Software acquired Actional, which became a division of Progress along with its other divisions.
- ⁸ View the vendor summary for more detailed analysis on how Progress Software fared in this evaluation. See the October 22, 2007, "[Progress Software's Depth And Extensibility Lead In Standalone SOA Management Solutions](#)" report.
- ⁹ View the vendor summary for more detailed analysis on how AmberPoint fared in this evaluation. See the October 22, 2007, "[AmberPoint's Deep Market Presence Leads The Standalone SOA Management Market](#)" report.
- ¹⁰ View the vendor summary for more detailed analysis on how IBM fared in this evaluation. See the October 22, 2007, "[IBM's Standalone SOA Management Solution Has Strong Ties With Its Enterprise IT Management](#)" report.
- ¹¹ View the vendor summary for more detailed analysis on how SOA Software fared in this evaluation. See the October 22, 2007, "[SOA Software Provides SOA Governance Built Into Its Standalone SOA Management Solution](#)" report.
- ¹² View the vendor summary for more detailed analysis on how HP fared in this evaluation. See the October 22, 2007, "[HP's Standalone SOA Management Solution Is Strong In Monitoring And Diagnostics](#)" report.
- ¹³ View the vendor summary for more detailed analysis on how CA fared in this evaluation. See the October 22, 2007, "[CA's Standalone SOA Management Solution Has The Deepest Visibility Into Java And .NET Services](#)" report.

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