

zapthink insight report

WEB SERVICES MANAGEMENT

THE MATURATION OF A TRANSITIONAL MARKET



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Abstract

Of all the markets that the rush to capitalize on Web Services and Service-Oriented Architectures (SOA) spawned, the space known as Web Services Management (WSM) is likely the most turbulent. Marked by a large number of new entrant vendors and cutthroat competition for a steadily increasing number of customers, WSM products have come to offer a core set of functionality as well as many of the key capabilities necessary for companies to build and run SOAs.

In spite of significant press and early adopter attention to the vendors in this space, there have been too many vendors chasing too few deals, and as a result, most WSM vendors have reconfigured their product and marketing strategies at least once, as they seek the right niche to build the customer traction so critical to their survival. As a result, the WSM market is filled with short-term fragmentation, as vendors jockey for position, and longer-term consolidation, as incumbent vendors make strategic acquisitions and build their WSM capabilities as the market matures.

This report provides WSM vendors with the perspective they need to focus their market and product strategies for the next one to two years, and it illustrates the complete WSM landscape for end-users, enabling them to understand which vendors will be able to provide the capabilities they require, both now and as they build out their Service-Oriented Architectures.

◆ Market Overview

- The short term trend in the WSM market is primarily one of fragmentation. The longer term trend is to the SOAIF, as customers look to vendors to provide coordinated frameworks that offer not just management capabilities, but all the components needed to build, run, and manage SOAs.

◆ Future Trends

- The opportunities for new entrants in the Web Services Management market will peak in 2004-2005, and drop off rapidly thereafter as incumbents move to consolidate the market.

◆ Decision Points

- There is a rapidly closing window of opportunity for new entrants in the WSM space to achieve sufficient customer traction to establish themselves as successful WSM vendors.
- Companies building enterprise SOAs require SOA enablement capabilities, including dependency management, active routing, protocol translation, metadata management, and Service provisioning.

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I. Web Services Management: A Transitional Market

Since ZapThink published its *Service-Oriented Management* Report (ZTR-WS106) in November 2002, the Web Services Management (WSM) market has formed, grown, consolidated, shaken out, and finally, gained some traction with customers. Of all the markets that emerged from the groundswell of adoption of Web Services and Service-Oriented Architecture (SOA) in the last two years, the WSM market has seen the greatest number of new entrants, the most consolidation, and the toughest competition. However, all this *Sturm und Drang* surrounding the WSM marketplace is particularly ironic, considering the fact that the WSM market is inherently transitional, with much of the functionality soon to be absorbed into other markets. Today's WSM vendors are battling to become established vendors in a space that won't exist a mere handful of years into the future, and as a result will have to be prepared to adjust their strategies as the broader market develops.

The WSM market is inherently transitional, with much of the functionality soon to be absorbed into other markets.

The overall market opportunity for products that provide WSM capabilities is substantial, and will show significant increase over time.

However, it is essential to point out that the overall market opportunity for products that provide WSM capabilities is substantial, and will show significant increase over time. That opportunity, however, will fall mostly to the *incumbents* (established vendors) in the system management market as well as other markets, as well as vendors who understand the overall consolidation that the Service Orientation (SO) market will undergo through the remainder of the decade. The *new entrants* (vendors focused on the new market) who are so tenaciously pursuing market share today will either undergo substantial transformations in the next few years, or will be absorbed by vendors who have the resources to survive the turmoil ahead.

There is a more narrowly construed WSM category that focuses on the monitoring of Web Services, managing Web Service service levels, handling Web Service exceptions, and issuing the resulting alerts.

To fully understand the various trends and forces that are buffeting the WSM market, it's essential to realize that there are several different core functionality sets that broadly fall under the WSM moniker, including passive management, configuration management, delivery contract management, provisioning, dependency management, SOA enablement, metadata management, and others. All of these related, yet different areas might be called "WSM in the large." In contrast, there is a more narrowly construed WSM category that focuses on the monitoring of Web Services, managing Web Service service levels, handling Web Service exceptions, and issuing the resulting alerts. As a result, there is a moderate level of end-user confusion, as vendors frequently do not agree on what capabilities and functionality WSM includes.

While this report cannot tell companies what WSM really should be—the market itself will have to decide that—ZapThink can illustrate the direction the market is heading. Likewise, it is not possible or even desirable to identify winners or losers in the transitional WSM market. Instead, this report provides insight into how the market is maturing so that vendors can deliver the capabilities businesses need to realize the value of SOA. ZapThink expects many changes to affect the WSM market, its participants, and their products as the general product trend moves toward consolidation into a fully functional suite that provides companies with all the software they need to build, run, and manage their enterprise SOA—what ZapThink calls the *SOA Implementation Framework*.

II. State of the WSM Market

In order to accurately gauge the growth of a market, it is critical to get an accurate picture of customer traction. Since we published ZapThink's *Service-Oriented Management* Report (ZTR-WS106) in November 2002, customer demand for WSM products has significantly increased. Today vendors report

Since the fourth quarter of 2003, companies have been adding budget line-items for WSM, and therefore, sales cycles have shortened considerably to three to six months for the typical WSM purchase.

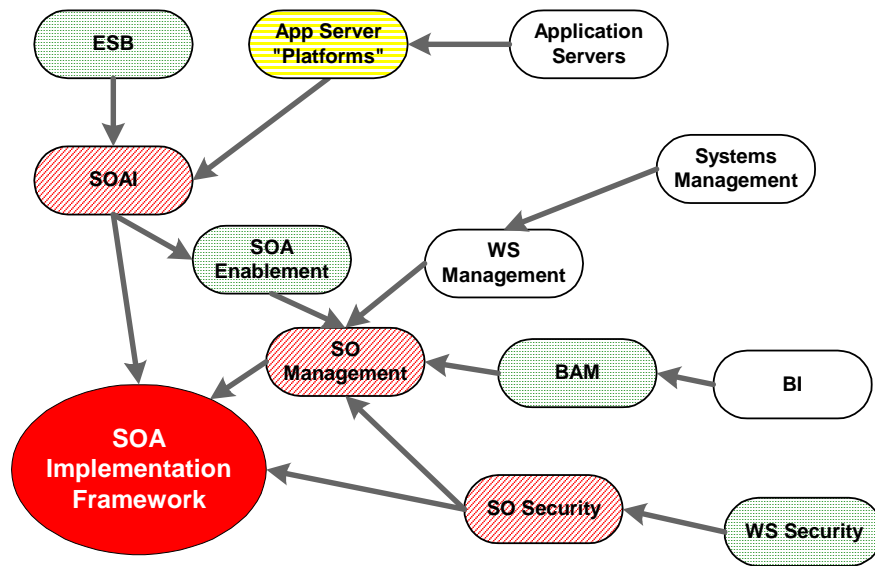
increasing sales as well as requests for proposals that describe specific, well-understood WSM needs. Since the fourth quarter of 2003, ZapThink's research shows that companies have been adding budget line-items for WSM, and therefore, sales cycles have shortened considerably to three to six months for the typical WSM purchase.

Nevertheless, the WSM market has also shown substantial fragmentation and consolidation in the same period, as large vendors have acquired smaller ones, and remaining participants have often redefined their strategies, with the result that many no longer call themselves Web Services management vendors at all. The following section outlines ZapThink's view of the state of the WSM market today.

2.1. Vendor Landscape

ZapThink discussed the overall pattern of change in the broader Web Services marketplace in our *Service-Oriented Market Trends* report (ZTR-WS110). In that report, we introduced the concept of the SOA Implementation Framework (SOAIF), a nascent market category containing products and solutions that offer everything companies need to build, run, and manage SOAs. That report also contained a market transition map that illustrated how various existing and transitional markets would shift over time as the SOAIF market came into being. The excerpt of the SOAIF market transition map relevant to WSM is shown in Figure II.1 below:

Figure II.1: Excerpt of SOAIF Market Transition Map



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In Figure II.1, white ovals indicate established markets that are currently undergoing transition to SO markets. The markets in green dots represent Web Services-related markets, including Web Services Management. The platforms market indicated in yellow horizontal stripes is an example of a market that will likely remain distinct from the SOAIF market, and the red diagonally striped markets represent core SO market segments. Such SO markets are transitional in the long term, but represent substantial opportunities for the next few years.

(Additional note: SOAI is *Service-Oriented Application Integration*, ESB is *Enterprise Service Bus*, BI is *Business Intelligence*, and BAM is *Business Activity Monitoring*.)

2.1.1. *SOA Enablement*

An increasing number of vendors are now identifying themselves as SOA enablement vendors and not as pure-play WSM vendors.

★ Vendor Focus

Blue Titan
Digital Evolution
Fiorano Software
HP
IBM
Infravio
IONA
Sonic Software
Talking Blocks
The Mind Electric
webMethods

While the arrows in the figure all show that markets are converging toward the SOAIF, it's important to point out that the true changes within each of these transitional markets tends to be more complex, with markets fragmenting as well as consolidating. For example, while in 2002 the nascent SO management market offered both SOA enablement and WSM capabilities, an increasing number of vendors, such as **Infravio**, are now identifying themselves as SOA enablement vendors and not as pure-play WSM vendors. **IBM's** SOA strategy also differentiates between SOA enablement and management, and **Digital Evolution** and **Blue Titan** consider themselves more SOA enablement vendors than WSM vendors, even though they have positioned themselves in the WSM space in the past. **HP's** adaptive management strategy also combines WSM and SOA enablement subsequent to their acquisition of **Talking Blocks**. Service-Oriented Integration (SOI) vendors like **Sonic Software**, **IONA**, **webMethods** (especially after their acquisition of **The Mind Electric**) and **Fiorano Software** also offer similar SOA enablement capabilities as well, even though they have never identified themselves as management vendors.

In spite of this divergence between WSM and SOA enablement, ZapThink believes that the two sets of capabilities will eventually converge into the same product families, as illustrated in Figure II.1. One of the most important long-term trends in the broader SOA marketplace is the ability for SOA products to solve integration problems architecturally, obviating the need for integration software *per se*. SOA enablement capabilities will then either be rolled directly into the resulting SOAIF products, or merge with WSM in what ZapThink calls SO Management.

2.1.2. *Web Services Security*

★ Vendor Focus

Actional
AmberPoint
Confluent Software
Digital Evolution
Flamenco Networks
Netegrity
Oblix
Westbridge
Technology

There is also broad variation in whether WSM vendors identify security as part of the WSM feature set. Vendors like **Actional**, **AmberPoint**, and **Flamenco Networks** offer robust security capabilities as part of their management offerings. **Westbridge Technology**, on the other hand, is moving away from the WSM label in favor of identifying itself as solely focusing on security and SOA enablement. **Oblix**, after its acquisition of **Confluent Software**, as well as **Digital Evolution**, with its deep partnership with **Netegrity**, consider WSM and security (in particular, identity and access management) both to be central to their management offerings.

The convergence of Web Services Security and Management makes sense for two basic reasons. First, The management of security is essentially management, and having a consolidated approach to management simplifies the overall

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Identity and access management are critical prerequisites for building and managing an enterprise SOA, because they are necessary for preserving the user context from the user interface across the Service interface to the underlying applications.

★ Vendor Focus

Actional
AmberPoint
Blue Titan
Computer Associates
Service Integrity
WestGlobal

★ Vendor Focus

Acclaim IT
Computer Associates
Mercury Interactive
Mindreef
Segue Software

Moving to an SOA shrinks the development cycle, as large, high-risk IT projects give way to iterative Service development and definition.

★ Vendor Focus

Collation
Flamenco Networks

management picture. But more importantly, identity and access management (IAM) in particular are critical prerequisites for building and managing an enterprise SOA, because IAM is necessary for preserving the user context from the user interface across the Service interface to the underlying applications.

On the other hand, the greatest challenge to converging Web Services Security and WSM is the fact that the individuals responsible for security and system management in the enterprise may be in different departments within the IT organization. It can be a challenge, therefore, for the vendors in this converged space to identify the appropriate contacts in the organizations they approach. ZapThink's research shows, however, that this issue is relatively minor, as companies who are undertaking SOA initiatives realize that they must pull together people from across IT (as well as individuals from various lines of business) in order to move forward effectively with an SOA initiative.

2.1.3. Business Management

In addition, several vendors offer Business Activity Monitoring (BAM) capabilities and business metrics as well as IT metrics at some level as part of their Web Services monitoring and alerting capability. Vendors with such business-level management capabilities include **Actional**, **AmberPoint**, **Blue Titan**, and **Computer Associates**. **WestGlobal**, a vendor featured in our 2002 report for focusing on BAM and business management, has left the WSM market altogether for the CORBA management market. Other vendors, such as **Service Integrity**, offer deep, configurable business visibility into the full range of XML traffic on the network, not just Web Services.

The challenge that each of these vendors has faced is again the different enterprise users. Line-of-business users are more interested in business management, while IT users find WSM more useful. Therefore, it is both easier to sell and to develop a management solution that focuses on one audience or the other.

2.1.4. Web Services Testing and Diagnostics

Another market tangential to the WSM market is the Web Services testing market (not illustrated in Figure II.1 for simplicity). These two markets overlap in the area of Web Services diagnostics—monitoring Web Services for the purposes of testing as well as management. Vendors such as **Mindreef** and **Acclaim IT** focus on Web Services diagnostics, and such capabilities can also be found in products from **Computer Associates**, **Mercury Interactive**, **Segue Software**, and others. As explained in ZapThink's *SOA Tools and Best Practices* report (ZTR-WS107), moving to an SOA shrinks the development cycle, as large, high-risk IT projects give way to iterative Service development and definition. As a result, testing (traditionally a design time activity) and diagnostics (traditionally runtime) will increasingly overlap over time as the basic distinction between design time and runtime blurs.

2.1.5. Web Services Configuration and Provisioning

Other vendors, like **Collation** and **Flamenco Networks**, are focused on the management of the configuration and provisioning of Web Services. Configuration and provisioning are less of a separate WSM category of functionality than the other categories discussed in this section. For example, Collation offers configuration management for all levels of an enterprise IT environment (network, server, application, and Service), and would not consider Web Service configuration as a separate product category. Likewise, Flamenco Networks has built out their provisioning capabilities in conjunction with their B2B Web Services focus.

★ Vendor Focus

Flashline
LogicLibrary
Metallect
Systinet

Metadata are fundamental to the basic operation of an SOA.

Programmers must understand that the role of the software infrastructure is to deal with data, rather than coding to specific business requirements.

★ Vendor Focus

British Telecom
Computer Associates
Cyclone Commerce
E2Open
Flamenco Networks
Grand Central
Strikelron
Telefonica
Verizon

★ Vendor Focus

Actional
AmberPoint
Computer Associates
Infravio
Itellix
Microsoft
NetIQ
nVision

2.1.6. Metadata Management

Metadata management is another area that is closely related to WSM. There are different types of metadata for different purposes, and therefore, the vendors who offer metadata management capabilities may not necessarily compete.

Metallect is a vendor who offers integration metadata management, helping IT personnel search for, understand, and use metadata about the systems and Web Services that are available. UDDI registries also store metadata about Web Services, so UDDI vendors like **Systinet** fall into this category as well. And finally, asset management vendors like **LogicLibrary** and **Flashline** manage metadata about Web Services and other SOA-related artifacts.

Metadata, in fact, are fundamental to the basic operation of an SOA. In an SOA, Metadata include information about the business processes and rules that business users work with. The underlying software must be able to process those metadata. So, instead of hard-coding business logic into the programming code, the business logic should appear in the form of metadata, which the programs must be able to deal with. Fundamentally, then, business Services form the crux of the SOA and act as the intermediary between the SO processes on the one hand, while the underlying technology on the other deals entirely with data, including metadata. Programmers, therefore, must understand that the role of the software infrastructure is to deal with data, rather than coding to specific business requirements. The specifics of what those data and metadata include, however, is in the realm of the business user. ZapThink plans to cover the SOA metadata management market in depth in upcoming research.

2.1.7. Business-to-Business Web Services Management

There are also WSM vendors who are focusing specifically on business-to-business (B2B) uses of Web Services. As mentioned above, **Flamenco Networks** specializes in B2B WSM, and **Computer Associates** clearly has this focus in mind given their efforts in the B2B-oriented Web Services Distributed Management (WSDM) standards working group. B2B WSM capabilities can also be found in the infrastructure products of **Cyclone Commerce**, as well as the managed business networks that **Grand Central**, **Strikelron** and **E2Open** provide. In addition, several telecom carriers are exploring managed Service provider offerings, including **British Telecom**, **Verizon**, **Telefonica**, and others.

It's important to highlight the B2B WSM market segment, because the loose coupling requirement for SOA is particularly stringent when more than one company is involved. Clearly, one company cannot typically control another's IT infrastructure. Nevertheless, companies that participate in networks of Web Services, whether between two firms or across multiple companies, must be able to manage the service levels for the Web Services they provide and access.

2.1.8. Core Web Services Management

Finally, there is the core WSM market which includes products that offer monitoring, service level management, exception handling, and alerting capabilities. This market includes **Actional** and **AmberPoint**, the two vendors who have pulled into an early lead in the WSM market, as well as relative newcomers **nVision** and **Itellix**. **NetIQ** is also an incumbent Windows management vendor who has recently entered the WSM space through an OEM deal with **Infravio**. **Computer Associates** has also entered this space with their Unicenter WSDM product. And on a final note, **Microsoft** includes core WSM capabilities in its Microsoft Operations Manager (MOM) product, as well as working with partners **Actional**, **AmberPoint**, and **Computer Associates**.

The core WSM market is especially cutthroat, as vendors seek to achieve sufficient traction in advance of the dominance of the incumbent players.

Of all the various WSM segments, the core WSM market has stabilized the most. Correspondingly, the vendors in this market are seeing the most customer traction, as end-users are becoming clear on their requirements for such products. But while this space is seeing the most activity short-term, it also offers the functionality that incumbent system management vendors are most likely to offer, either by building it themselves or by acquiring one of the new entrants in this space. Such an environment makes the core WSM market especially cutthroat, as vendors seek to achieve sufficient traction in advance of the dominance of the incumbent players ZapThink expects in two to three years.

2.1.9. Vendor Landscape Summary

The key players in the broader WSM market are shown in Table II.1 below. A vendor name appears in bold within those market segments that form the primary emphasis of the vendor’s product strategy.

Table II.1: Vendors in the Broader WSM Market

Specific Market	Vendors
Core WSM (monitoring, SLA management, exception management)	Actional AmberPoint Itellix Microsoft nVision NetIQ
SOA Enablement	Actional Blue Titan Digital Evolution HP IBM Infravio Westbridge Technology
Security	Actional AmberPoint Digital Evolution Flamenco Networks Oblix Westbridge Technology
Professional Services	Digital Evolution HP IBM Infravio
Business Monitoring	Actional AmberPoint Blue Titan Computer Associates Service Integrity
Web Services Diagnostics	Acclaim IT Computer Associates Mercury Interactive Mindreef Segue Software
Configuration Management and Provisioning	Collation Flamenco Networks

The short term trend in the WSM market is primarily one of fragmentation. However, this fragmentation trend is necessarily short-lived.

★ **Vendor Focus**

- Adjoin**
- Computer Associates**
- Confluent Software**
- HP**
- Infravio**
- NetIQ**
- Oblix**
- Primordial**
- Swingtide**
- Talking Blocks**
- WestGlobal**

★ **Decision Point**

ZapThink recommends that vendors get down to basics: focus on solving customer problems.

★ **Decision Point**

WSM capabilities that address SOA-related issues will be the most important over the next two to three years.

Metadata Management	Flashline Infravio LogicLibrary Metallett Systinet
B2B Web Services	Computer Associates Cyclone Commerce Flamenco Networks
Managed Business Networks	E2Open Grand Central Strikelron
WSM developed expressly for the SMB market	Acclaim IT Strikelron

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As shown by the variety of shifting business models above, the short term trend in the WSM market is primarily one of fragmentation, as vendors adjust their strategies for competitive advantage. However, this fragmentation trend is necessarily short-lived, as the marketplace will resolve itself in the next year to two years into categories that customers understand. Furthermore, the longer term trend toward consolidation is also taking place, with **Computer Associate's** acquisition of **Adjoin**, **HP's** acquisition of **Talking Blocks**, **Oblix's** acquisition of **Confluent Software**, and **NetIQ's** OEM relationship with **Infravio** all taking place since ZapThink published our SOM report in 2002. In addition, **Primordial** has gone out of business, and **Swingtide** and **WestGlobal** have essentially exited the WSM space altogether.

In the face of such turbulence, ZapThink recommends that vendors get down to basics: focus on solving customer problems. Be flexible with marketing strategies as customers come to understand their requirements, and the markets shift as a result, but hone your product strategies to address both current customer pain points as well as future customer issues that will likely occur as your products come to market. ZapThink predicts that such customer pain points will increasingly center on the transition to enterprise SOAs, and therefore, those WSM capabilities that address SOA-related issues will be the most important over the next two to three years.

Furthermore, while there will likely be further acquisitions in the WSM market, it is rarely if ever a good idea for a new entrant to attempt to position themselves for sale. Such positioning may be a way to give investors much of their money back, but does not constitute a successful outcome. Instead, focus on solving customer issues as they build SOAs, and that will lead to customer traction, which in turn leads to increased company value.

2.2. Customer environment

ZapThink's research shows that interest in SOAs from enterprise customers picked up dramatically starting in the third quarter of 2003, and has continued unabated through the second quarter of 2004. While some large organizations are planning true enterprise SOAs in the sense that dynamic discovery of Services is an integral part of the architecture, ZapThink is finding that most SOA efforts to date center on building a set number of business Services and making those available to specific Service consumers (either internal or external to the organization), which ZapThink categorizes as pilot SOAs. In either case, customers have come to realize the importance of WSM to their SOA plans.

★ Vendor Focus

Actional
AmberPoint
Digital Evolution
IBM
Infravio

★ Decision Point

Companies building enterprise SOAs require SOA enablement capabilities, including dependency management, active routing, protocol translation, metadata management, and Service provisioning.

Even at large enterprises, pilot projects are often departmentally focused.

★ Vendor Focus

Acclaim IT
Strikelron

For customers looking to build business Services that will be available to a range of Service consumers, requirements center on monitoring, service level management, and reliability. As a result, **AmberPoint** has seen a substantial amount of customer traction, as these requirements are in their functionality "sweet spot." **Actional** has also seen improvement in sales and a solid pipeline for the same reason.

Other customers have more ambitious SOA plans, and those customers often require professional services assistance in addition to WSM and other SOA products. **Digital Evolution** and **Infravio** have achieved significant customer wins based on their combined professional services and WSM offerings, and **IBM** recently launched an SOA marketing and solution initiative that combined both their software and professional services offerings under IBM Global Services.

The WSM product needs for companies building enterprise SOAs are deeper than the monitoring and reliability requirements for companies focusing on building business Services during the pilot phase. In addition to those capabilities, such customers also require SOA enablement capabilities, including dependency management, active routing, protocol translation, metadata management, and Service provisioning. However, there is still no clear, consistent set of requirements as companies build enterprise SOAs as there is when they are building their pilot SOAs. Therefore, where requests for proposals (RFPs) for pilot projects are becoming more straightforward as customers come to understand their own requirements, enterprise SOA RFPs are still quite difficult to produce, and correspondingly, respond to. As a result, the sales cycles for pilot projects has shrunk substantially over the last year, while enterprise SOA sales cycles are still generally open-ended.

It is also important to point out that even at large enterprises, pilot projects are often departmentally focused. Enterprisewide projects—true enterprise SOAs—are still very rare, and even the most aggressive of early adopters is reluctant to consider moving the entire enterprise to SOA at this time. Fortunately, the move to Service Orientation lends itself well to a gradual, phased approach, and as a result, many enterprises find that a departmental initiative is often the best place to start. As a result, WSM vendors with product strategies and price points that appeal to project leaders with a departmental scope are finding good traction. Actional and AmberPoint shine here as well.

There is also an increased interest in SOAs in general and WSM in particular among small to mid-sized businesses (SMBs). The smaller a business is, the more likely their interest in Web Services is external to their organization, as internal IT environments are simpler than at larger companies. Furthermore, smaller companies are beginning to consume external Web Services (say, for informational purposes or as part of an affiliate program) as well as produce Web Services for external consumption. The WSM requirements of the SMB therefore include discovery of external Services and managing the reliability of both internal and external Services. **Strikelron** and **Acclaim IT** are two of the few vendors focused on this new area.

III. Market Trends

With all the turmoil of the fragmentation and consolidation roiling the WSM market today, it's easy to lose sight of the broader market trends that will be driving the WSM marketplace over the remainder of the decade. As shown in Figure II.1 above, ZapThink predicts the overall trend in the WSM market is to SO Management and then to the SOA Implementation Framework (SOAIF). As more companies undertake enterprise SOA buildouts as described in Section 2.2 above, SOA enablement will become increasingly important, and at that point,

The longer term trend is to the SOAIF, as customers look to vendors to provide coordinated frameworks that offer not just management capabilities, but all the components needed to build, run, and manage SOAs.

Decision Point

There will continue to be a relatively narrow opportunity for point products that continue to focus exclusively on WSM functionality.

Vendor Focus

Computer Associates
HP
IBM

Decision Point

There is a rapidly closing window of opportunity for new entrants in the WSM space to achieve sufficient customer traction to establish themselves as successful WSM vendors.

WSM vendors will find that an increasing portion of their opportunities are in the SO Management space, which ZapThink roughly defines as the combination of WSM and SOA enablement.

The longer term trend, however, is to the SOAIF, as customers look to vendors to provide coordinated frameworks that offer not just management capabilities, but also security, SO Process, development and architectural tooling, and the underlying integration infrastructure—basically, all the components needed to build, run, and manage SOAs. Such SOAIF products will necessarily be modular rather than monolithic, as modularity is one of the core benefits of Web Services and Service Orientation. Therefore, no vendor will be successful offering a monolithic SOAIF, but must rather allow customers to assemble elements of the SOAIF from different sources. Nevertheless, customers as a rule would rather work with a smaller number of vendors, as long as they have the option to work with vendors other than the ones they ultimately select. For the WSM market, then, there will continue to be a relatively narrow opportunity for point products that continue to focus exclusively on WSM functionality, but the broader opportunity will be for SOAIF vendors who offer the full range of SOA capabilities.

As a result, there is a rapidly closing window of opportunity for new entrants in the WSM space to achieve sufficient customer traction to establish themselves as successful WSM vendors. Contrarily, while the window is closing for new entrants, the long-term opportunities for incumbent vendors will continue to grow over the next several years, as these incumbents are the most likely to offer successful SOAIF products or suites. **HP** and **Computer Associates** are likely to be the early benefactors of this growth opportunity for incumbents, as they are already well-positioned in the WSM market. Long term, however, **IBM** is the best positioned of the incumbents to dominate the SOAIF market. In the short term, IBM is downplaying its WSM capabilities in its Tivoli division, but ZapThink expects IBM to roll out substantial new WSM capabilities later in 2004.

3.1. Market Numbers

This section contains market predictions for the overall SO Management marketplace, as first detailed in ZapThink's *Service-Oriented Market Trends* report (ZTR-WS110). The SO Management market includes WSM products as well as products specifically intended to help enterprises manage their SOAs. This market will over time be subsumed within the greater system management incumbent market, and then into the SOAIF market. This section contains the following information:

- A table with the raw data found in the graphs.
- A graph showing the revenue of new entrants as a part of the total SO Management market. This graph is in logarithmic form due to the relative size difference between total market and new entrant numbers.
- A graph showing the total SO Management market as a part of the total incumbent system management market, which includes both SO and non-SO components. This graph illustrates the trend of incumbents to Service-enable their existing software.
- A line graph showing the high, low, and average market size numbers for the SO Management market. These ranges take into account the differing values of third-party incumbent predictions. The actual market size will be between the low and high numbers.
- A percentage graph showing the percent of the incumbent market that is part of the total SO Management market. This graph also illustrates the trend of incumbents to Service-enable their existing software.

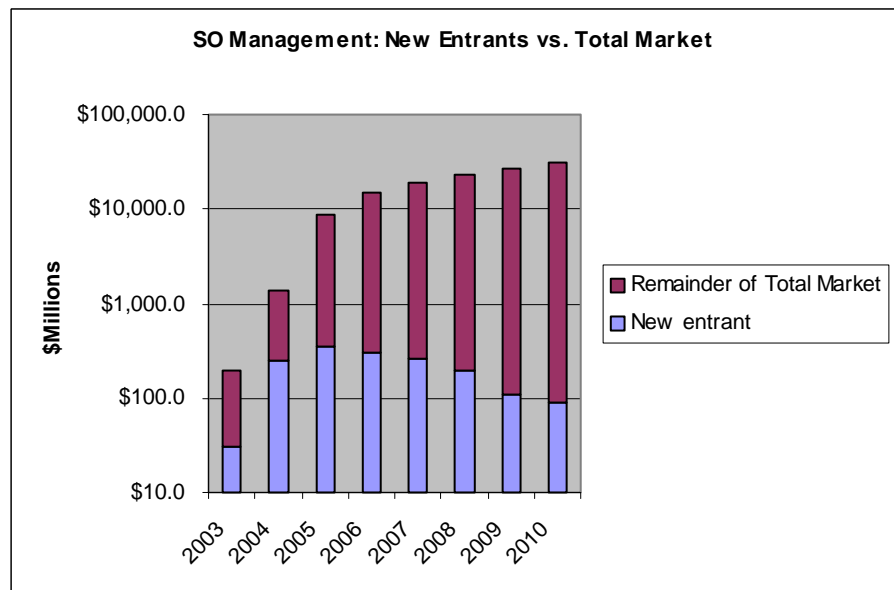
- A percentage graph showing the percent of each SO market that is represented by new entrants.

Table III.1: SO Management Market Data (\$Millions)

	2003	2004	2005	2006	2007	2008	2009	2010
New entrant	\$30.0	\$250.0	\$350.0	\$310.0	\$260.0	\$195.0	\$110.0	\$90.0
% of Incumbent that is SO	1%	6%	40%	63%	71%	77%	82%	85%
Total Market Size (Low)	\$166.8	\$1,201.8	\$7,647.1	\$13,411.9	\$16,797.6	\$19,923.6	\$23,010.5	\$25,490.1
Total Market Size (Avg)	\$194.3	\$1,368.1	\$8,778.5	\$15,262.8	\$19,095.8	\$22,848.7	\$26,760.1	\$30,373.6
Total Market Size (High)	\$221.8	\$1,534.4	\$9,910.0	\$17,113.6	\$21,394.1	\$25,773.9	\$30,509.6	\$35,257.2
Incumbent Market Size	\$16,428.1	\$18,634.6	\$21,071.4	\$23,734.6	\$26,529.4	\$29,420.4	\$32,500.1	\$35,627.8
% of Market that is New Entrant	15%	18%	4%	2%	1%	1%	0%	0%

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Figure III.1: SO Management: New Entrants vs. Total Market

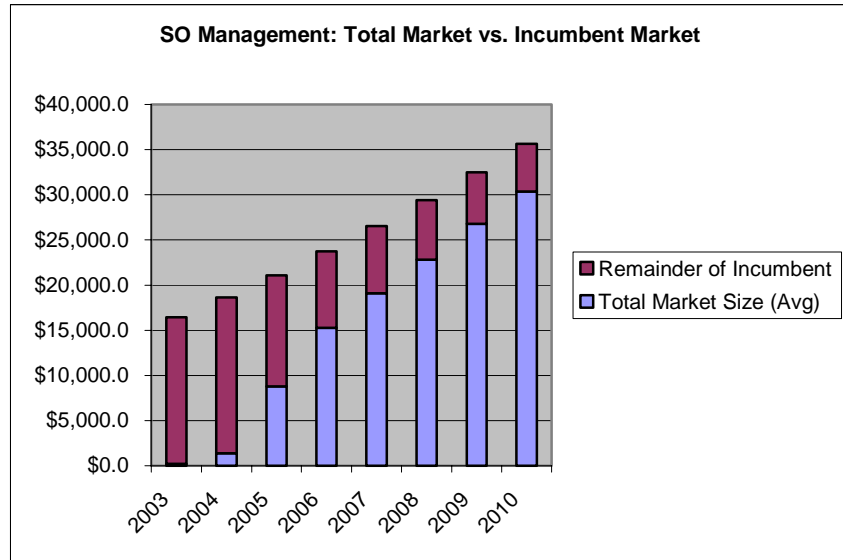


Source: Copyright © 2004 ZapThink, LLC

Key points to be drawn from Figure III.1:

- The window of opportunity for new entrants in the SO Management market exists through 2005-2006, when the incumbent market will come to dominate the SO Management space.
- Opportunities for new entrants will peak in 2005 at \$350 million.
- The size of the new entrant market will go from approximately one order of magnitude to 2.5 orders of magnitude less than the total SO Management market size from 2004 to 2010.
- There will continue to be opportunities for new entrants in the SO Management market through 2010, but these opportunities will remain modest as compared to the total SO Management market.

Figure III.2: SO Management: Total Market vs. Incumbent Market

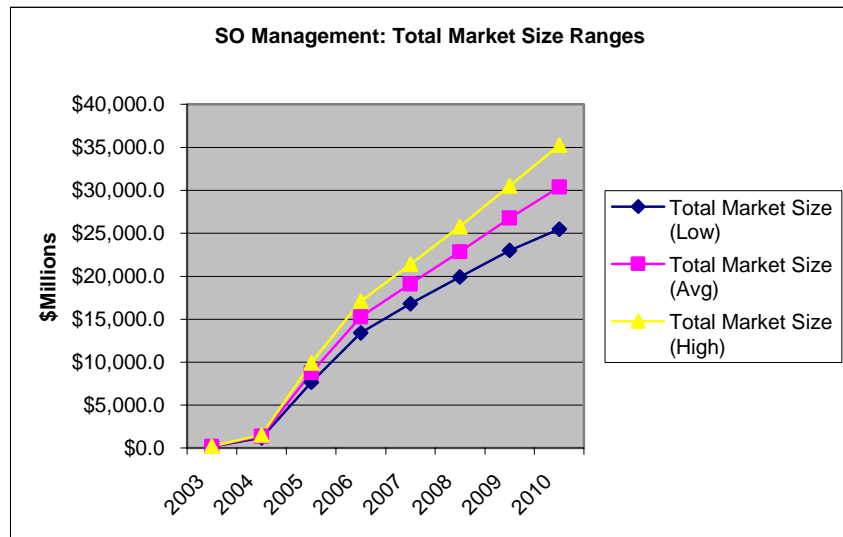


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Key points to be drawn from Figure III.2:

- The incumbent system management market will become primarily SO by 2006.
- The total SO Management market will continue to show growth during 2004-2010.
- The Total SO Management market will reach \$30.4 billion by 2010.

Figure III.3: SO Management: Market Size Ranges

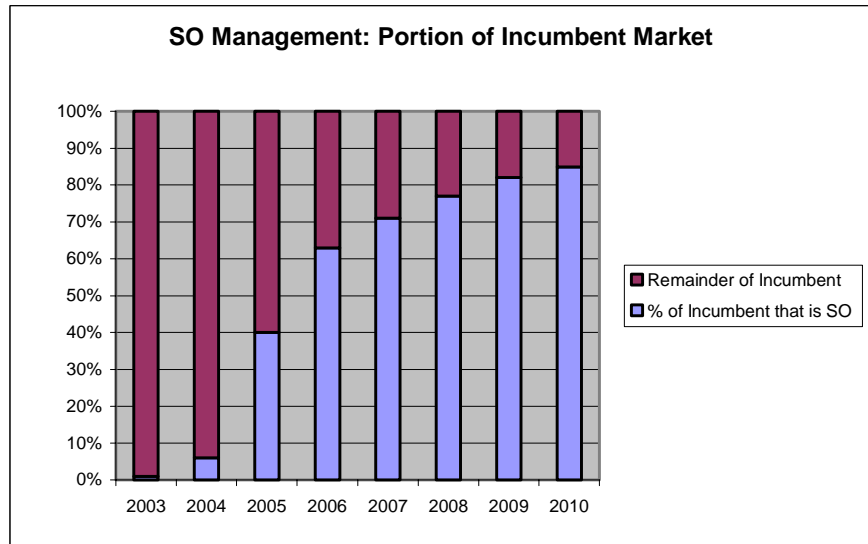


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Key points to be drawn from Figure III.3:

- The total SO Management market size ranges from \$167 million to \$222 million in 2003 to \$25.5 billion to \$35.3 billion in 2010, with expected sizes of \$194 million in 2003 to \$30.4 billion in 2010.
- The SO Management market will see a dramatic increase in 2004-2005, as large incumbents move to consolidate the market.

Figure III.4: SO Management: Portion of Incumbent Market

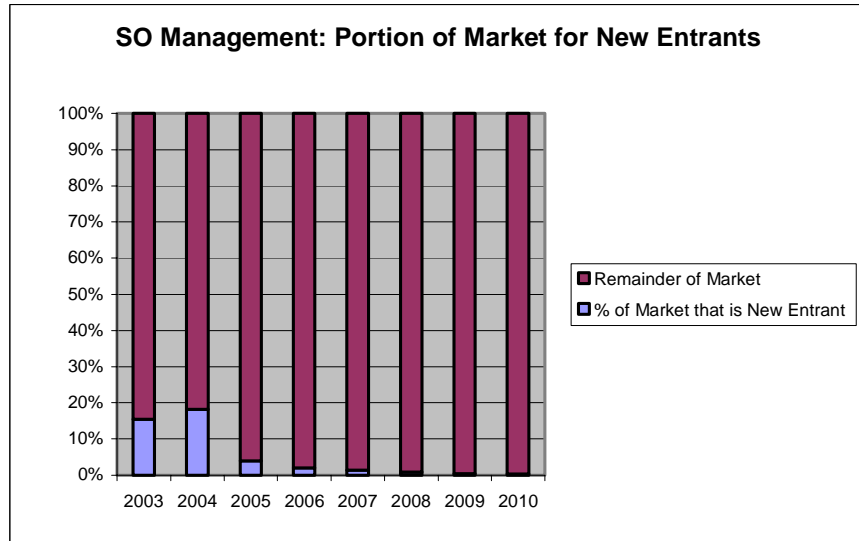


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Key points to be drawn from Figure III.4:

- An insignificant portion of the system management market is SO in 2003, but that percentage will go to 85% by 2010.
- Incumbents will move to consolidate the SO Management market in 2004-2005.

Figure III.5: SO Management: Portion of Market for New Entrants



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Key points to be drawn from Figure III.5:

- The opportunities for new entrants in the SO Management market will peak in 2004-2005, and drop off rapidly thereafter as incumbents move to consolidate the market.
- As the SO Management market grows, the portion represented by new entrants will decrease, with new entrants becoming an insignificant portion of the market by 2006.

The opportunities for new entrants in the SO Management market will peak in 2004-2005, and drop off rapidly thereafter as incumbents move to consolidate the market.

IV. The ZapThink Take

While the WSM market is fundamentally a transitional market, it is just now reaching the period of the greatest growth. The core short term trends include a fragmenting of the WSM market as vendors jockey for the proper marketing message and competitive niche; shortening sales cycles and clearer RFPs as customers shop for WSM products to help with their pilot SOA projects; and incumbent vendors who are beginning their forays into the WSM space in advance of the major push expected in the next few years. There are also increasing indications that Web Services use among SMBs as well as enterprise SOA projects among large companies are beginning to increase, and both of these forces will create new opportunities—and some additional turmoil—in the WSM marketplace.

Here are ZapThink’s key takeaways from this report for various audiences:

- **Enterprise customers** – the WSM marketplace has stabilized sufficiently that there are several vendors who can provide robust solutions for your pilot SOA projects. As you build out an enterprise SOA, however, you may find that consulting with a professional services firm that can help with SOA will ease your product selection process.
- **Small and Medium Business (SMB) customers** – the number of Web Services available to your business is set to explode, and you may also be considering offering Web Services to your customers. In either case,

While the WSM market is fundamentally a transitional market, it is just now reaching the period of the greatest growth.

Customers are buying, so if you're not selling, then something is wrong.

you should be concerned with issues of security, reliability, and the ability to find the right Web Service for the intended purpose. WSM vendors are beginning to look at these problems.

- **New entrants in the WSM market** – the time has come to settle on your core market and product strategies, if you haven't already. Customers are buying, so if you're not selling, then something is wrong. Remember, only a few vendors will survive as independent companies.
- **WSM incumbents** – Continue to watch the WSM space closely. As your customers get serious about SOAs, they will be looking to you for more functionality than today's WSM vendors currently offer. You should position yourself to take advantage of the smaller players' limitations, while at the same time, look to acquire key capabilities through strategic purchases.
- **Company founders and investors looking to enter the WSM market** – sorry, it's probably too late. There are too many players already. Nevertheless, there are still opportunities in related areas; you might look at solutions for the SMB market, as well as finding a niche in the SOA enablement or broader, but still nascent SOA tools market.

4.1. Key notes

- The WSM market is inherently transitional, with much of the functionality soon to be absorbed into other markets.
- The overall market opportunity for products that provide WSM capabilities is substantial, and will show significant increase over time.
- There is a more narrowly construed WSM category that focuses on the monitoring of Web Services, managing Web Service service levels, handling Web Service exceptions, and issuing the resulting alerts.
- Since the fourth quarter of 2003, companies have been adding budget line-items for WSM, and therefore, sales cycles have shortened considerably to three to six months for the typical WSM purchase.
- An increasing number of vendors are now identifying themselves as SOA enablement vendors and not as pure-play WSM vendors.
- Identity and access management are critical prerequisites for building and managing an enterprise SOA, because they are necessary for preserving the user context from the user interface across the Service interface to the underlying applications.
- Moving to an SOA shrinks the development cycle, as large, high-risk IT projects give way to iterative Service development and definition.
- Metadata are fundamental to the basic operation of an SOA.
- Programmers must understand that the role of the software infrastructure is to deal with data, rather than coding to specific business requirements.
- The core WSM market is especially cutthroat, as vendors seek to achieve sufficient traction in advance of the dominance of the incumbent players.
- The short term trend in the WSM market is primarily one of fragmentation. However, this fragmentation trend is necessarily short-lived.

- Even at large enterprises, pilot projects are often departmentally focused.
- The longer term trend is to the SOAIF, as customers look to vendors to provide coordinated frameworks that offer not just management capabilities, but all the components needed to build, run, and manage SOAs.
- The opportunities for new entrants in the SO Management market will peak in 2004-2005, and drop off rapidly thereafter as incumbents move to consolidate the market.
- While the WSM market is fundamentally a transitional market, it is just now reaching the period of the greatest growth.
- Customers are buying, so if you're not selling, then something is wrong.

4.2. Decision points

- ZapThink recommends that vendors get down to basics: focus on solving customer problems.
- WSM capabilities that address SOA-related issues will be the most important over the next two to three years.
- Companies building enterprise SOAs require SOA enablement capabilities, including dependency management, active routing, protocol translation, metadata management, and Service provisioning.
- There will continue to be a relatively narrow opportunity for point products that continue to focus exclusively on WSM functionality.
- There is a rapidly closing window of opportunity for new entrants in the WSM space to achieve sufficient customer traction to establish themselves as successful WSM vendors.

4.3. Figures

- Figure II.1: Excerpt of SOAIF Market Transition Map
- Figure III.1: SO Management: New Entrants vs. Total Market
- Figure III.2: SO Management: Total Market vs. Incumbent Market
- Figure III.3: SO Management: Market Size Ranges
- Figure III.4: SO Management: Portion of Incumbent Market
- Figure III.5: SO Management: Portion of Market for New Entrants

4.4. Tables

- Table II.1: Vendors in the Broader WSM Market
- Table III.1: SO Management Market Data (\$Millions)

Related Research

- *Service-Oriented Integration* Report (ZTR-WS103)
- *XML and Web Services Security* Report (ZTR-WS104)
- *Testing Web Services* Report (ZTR-WS105)
- *Service-Oriented Management* Report (ZTR-WS106)
- *Service-Oriented Architecture: Tools and Best Practices* Report (ZTR-WS107)
- *Service-Oriented Process* Report (ZTR-WS108)
- *Service Orientation Market Trends* Report (ZTR-WS110)

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About ZapThink, LLC

ZapThink is an IT market intelligence firm that provides trusted advice and critical insight into XML, Web Services, and Service Orientation. We provide our target audience of IT vendors, service providers and end-users a clear roadmap for standards-based, loosely coupled distributed computing – a vision of IT meeting the needs of the agile business.

ZapThink's role is to help companies understand these IT products and services in the context of SOAs and the vision of Service Orientation. ZapThink provides market intelligence to IT vendors who offer XML and Web Services-based products to help them understand their competitive landscape and how to communicate their value proposition to their customers within the context of Service Orientation, and lay out their product roadmaps for the coming wave of Service Orientation. ZapThink also provides implementation intelligence to IT users who are seeking guidance and clarity into how to assemble the available products and services into a coherent roadmap to Service Orientation. Finally, ZapThink provides demand intelligence to IT vendors and service providers who must understand the needs of IT users as they follow the roadmap to Service Orientation.

ZapThink's senior analysts are widely regarded as the "go to analysts" for XML, Web Services, and SOAs by vendors, end-users, and the press. They are in great demand as speakers, and have presented at conferences and industry events around the world. They are among the most quoted industry analysts in the IT industry.

ZapThink was founded in October 2000 and is headquartered in Waltham, Massachusetts. Its customers include Global 1000 firms, public sector organizations around the world, and many emerging businesses. ZapThink Analysts have years of experience in IT as well as research and analysis. Its analysts have previously been with such firms as IDC and ChannelWave, and have sat on the working group committees for standards bodies such as RosettaNet, UDDI, CPExchange, ebXML, EIDX, and CompTIA.

Call, email, or visit the ZapThink Web site to learn more about how ZapThink can help you to better understand how XML and Web Services impact your business or organization.

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