INFORMATION MANAGEMENT: STRATEGY, SYSTEMS, AND TECHNOLOGIES

THE MANAGEMENT SERVICE PROVIDER OPTION

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Benefits of Using a Management Service Provider (MSP); Types of MSPs; Relationship to ASPs and ISPs; The MSP Business Model; Control Issues

INTRODUCTION
Conventional wisdom warns companies against outsourcing their core competencies and, at one time, management fell into this category. Now, however, especially with the rise of E-business, organizations require exceptional management to survive. Because this is not always available in-house, management service providers (MSP) are springing up to fill the need.

MSPs are an emerging type of vendor that lets customers outsource various aspects of information technology (IT) management. If an MSP can guarantee that an organization's network or applications will remain up and running, and downtime will be nearly or completely eliminated, an organization should seriously consider this option.

MSPs appeal, in particular, to small and mid-sized companies, as well as E-businesses, as an alternative to the expense of building their own management systems. While these businesses might require 24/7 availability, they do not have the resources to ensure this uptime by doing their own management. However, an MSP can do so, notifying the customer of potential problems or slowdowns.

In fact, some analysts predict that 50 to 70 percent of organizations will use a service provider to assist in building or hosting their E-commerce applications. In-house management costs are steep, and include manage-

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E-businesses, as well as small and mid-sized companies, often find it cost-prohibitive to build their own management systems. While they might require 24/7 availability, they do not have the resources to ensure uptime. This is where the management service provider (MSP) fits in. Driven by the shortage of skilled professionals, the increasing complexity of network and systems management, the rapid evolution of technology, and the need to monitor on a 24/7 basis, MSPs are subscription-based external services that manage infrastructure resources or applications. They offer tool implementation and hosting, cost savings, rapid time to value, expertise to supplement staff resources, and an outside perspective.
ment platforms and point products; management integration tools such as a central console; and staff to install, configure, test, and maintain systems. Businesses must also gauge the cost of downtime.

The cost savings attributed to MSPs can be substantial. Companies save not only the hefty price of the software itself, but the cost of internally hosting management software, which is estimated at three to nine times the cost of the software, plus ongoing staff costs.

Still, in turning to MSPs, IT managers give up some control and visibility into their infrastructure. Also, because the services might lack the functionality of traditional management platforms, flexibility is an issue; it becomes difficult to add new technologies and systems to the IT infrastructure. Therefore, if IT is critical to the organization, such as in the financial services and telecommunications industries, companies might want to retain management control.

According to one analyst, there are approximately 70 vendors in the management service provider category. These include Manage.com, Luminate.net, SilverBack Technologies, NetSolve, Envive Corp., Freshware, StrataSource, and SiteLine. By end of 2000, analysts predict that MSPs will generate more than $90 million in revenue, and $4 billion by 2005.

Major management solution providers are also beginning to offer MSP services, including Computer Associates and Hewlett-Packard; the latter has a new HP OpenView service provider unit. Some vendors such as TriActive are changing their marketing message from application service provider (ASP) to MSP. And other management software vendors, such as BMC, are forging alliances with MSPs, and buying companies with point products.

### MSP Benefits

MSP drivers include the shortage of skilled professionals, the increasing complexity of network and systems management, the rapid evolution of technology, and the need to monitor on a 24×7×365 basis. An MSP offers organizations a subscription-based external service to manage their infrastructure resources or applications. The MSP vendor provides tool implementation and external tool hosting, or hosting within the customer environment. MSPs predominantly target E-business applications and small to mid-sized companies.

In addition to cost advantages, MSPs offer these organizations rapid time to value, due to quick implementation; an ongoing relationship, to ensure subscription renewal; supplementation of staff resources with additional expertise; and an outside perspective. Because the MSP hosts the solution, the organization can be up and running quickly. This fast implementation contrasts sharply with the long implementation times required for an organization to host a solution in-house.
The MSP model also supplements the IT staff in new technology areas — specifically, in E-commerce application management. By doing the repetitive work, MSPs free the IT staff to focus on higher-level, value-added programs.

One analyst group recently estimated that the demand for IT professionals exceeds the supply by 30 percent. The labor shortage is particularly acute in network and systems management, which people have not been trained for, and which does not represent a growth path.

Frameworks have failed to solve the labor shortage problem. Enterprise management tools from the likes of Compuware, Tivoli, and Computer Associates are too expensive, too difficult to implement, and require too many people. So the management solution becomes a management problem in and of itself, whereby enterprise software is partially implemented, it becomes shelfware, or its use is not widespread across all environments. When its champions leave the company, the tools are seldom used.

By contrast, the MSP allows people to manage via the Internet on a subscription basis, so a $100,000 to $150,000 up-front cost is not required. Not only is there a low cost of entry, but payment on a monthly basis means the work comes out of the services budget, rather than that of capital acquisition. Therefore, organizations do not get caught up in budget/approval cycles, where different price points require different authorizations. The monthly basis keeps the sale lower in the organization, helping both vendors and users.

In addition, the MSP bears the initial and continuing costs of investing in hardware and software infrastructure, while the customer company simply pays a monthly fee. There is also relatively low risk to companies that choose an MSP solution. If the provider is not meeting its needs, the organization can cancel the subscription and go elsewhere.

SOURCING APPROACHES

In managing their IT environments, organizations have traditionally focused on enterprise tools, purchasing them via perpetual license, and taking advantage of volume discounts. The tools range from point products to comprehensive management frameworks, providing the entire range of systems management functionality. In addition, organizations often augment their tool purchases with vendor-supplied implementation services.

The MSP offers an alternative model that takes different forms. For example, the MSP might sell directly to enterprises, or it might package its offerings with another service provider, such as an ASP or Internet service provider (ISP).

Some organizations have turned to the “legacy MSP.” Here, the management service provider functions as a layer between the complexity of
an enterprise management framework and the user. The MSP takes traditional enterprise software, installs it, and runs it for the organization, with both the customer and MSP operating the software. Characteristically, there is dedicated hardware for each customer.

For example, MSPs such as TriActive might run the Tivoli environment for a user, wrapping their technical expertise around it. In this hosted model for enterprise software, the customer gets the benefit of the framework, while being shielded from its complexity, and attains faster implementation of the software, and lower up-front costs than with a software-based approach.

However, there is a higher cost of entry than with other types of MSPs. While users pay on a monthly basis, they must commit to the cost over a longer period of time. In addition, users are still limited by the inherent disadvantages of frameworks, including the software’s functionality, complex deployment, and scalability. After all, these are classic client/server products that have been extended to the Internet and tend to focus on such processes as network node management and software distribution, rather than offering service level agreements, application management, or performance management.

The turnkey MSP, which might be considered a variant or subset of the legacy MSP, is a service whereby the MSP installs products on the client site and remotely manages the infrastructure. Such MSPs will manage entire systems, an entire application, or an entire management process, such as the help desk. The turnkey MSP is subscription based and process focused, although enabled by tools — which generally come from traditional software vendors.

When these MSPs provide a holistic end-to-end systems strategy, they might be considered to be “Tivoli in MSP format.” However, while the MSPs are now selling Tivoli capabilities, they could change vendor, because they all work with numerous vendors. The product partner of the moment is unknown to the end user, who just gets the required management reports or service delivery.

Turnkey MSPs that offer a complete enterprise system management solution include SilverBack, TriActive, MimEcom, and InteQ. For its part, StrataSource manages an entire application. While such providers get much of their technology from traditional vendors, such as Micromuse, BMC, and Computer Associates, the MSPs add value through their technology and processes.

While the software is often installed at the client site, the MSP vendor is responsible for implementation, maintenance, and ongoing use. In most cases, the MSP staff is located off-site, with secure connections to customer hardware.

Small and medium-sized enterprises with 50 to 300 servers are best suited to turnkey MSPs. Larger organizations would find them too costly because they have greater scalability and customization requirements,
which bring high failure potential. However, for small and mid-sized businesses, turnkey MSPs will likely expand their offerings to include Internet-enabling infrastructure functions such as load balancing, cache management, and content distribution.

For its part, the Internet MSP is a subscription service of three, six, or nine months, whereby companies pay a monthly service fee for the management of a specific aspect of systems or applications, such as Internet monitoring or content delivery. This is what most people refer to when talking about a management service provider. Designed to manage and run over the Internet, these quick-to-install MSPs provide high functionality, although they are not appropriate for all functions. As their name implies, Internet MSPs primarily focus on managing Internet-based applications. They offer such functions as monitoring, storage, security, end-user self-help, and marketing.

These MSPs tend to sell to two camps. The first, classical example, is that of mature companies that understand what they do not know, as well as what it takes to run an IT organization, including hardware, and a network infrastructure. Here, MSPs are dealing with technical folks. The second customer camp consists of dot.coms, which are small, or do not realize they cannot do it themselves. In this case, business rather than technical people are generally involved.

Internet MSPs usually offer a service that is based on point tools that target a single management concern. Internet MSPs use brand-new technology and applications that were built to exploit the Internet. They target E-business applications, and require little or no technology to be deployed internally. Because customers need not buy and install large frameworks or applications, Internet MSPs offer a low barrier to entry, and low cost.

Internet MSPs offer specific services. For example, Keynote, Freshwater, Luminate, and Mercury Interactive provide infrastructure monitoring and testing. They can generally view application performance from outside, simulating the users' perspective. Internet MSPs also provide security testing, software maintenance, and external storage networks for storing and managing data.

As for the disadvantages, Internet MSPs are “very niche”; that is, all the functionality is not there yet. While they provide application and server management, they do not offer software distribution or help-desk functions, although broader functionality is expected in the future. In addition, use of a framework limits the number of vendors with which a company must work. Because the MSP space is new, companies might have to deal with more vendors, for example, to attain network performance functions in addition to infrastructure monitoring.

Some analysts anticipate the development of “integration MSPs,” which will allow ISPs and ASPs to share real-time infrastructure events and alarms with their customers. If, as some believe, data gathering is be-
coming a commodity, MSPs must differentiate themselves from competitors. To do so, MSP vendors such as Ganymede, Luminate, and Manage.com are giving away a tool or service to gain customers. The free tools monitor an element or process, allowing IT departments to try them out. The MSPs hope that these organizations will then become customers and start using their other services, such as data integration.

Another approach to MSPs is that offered by service providers, which add management tools to their contracted service offerings. Operating on a subscription basis, these providers focus on performance monitoring, and delivering to service level agreements. However, flexibility is an issue because they only offer a few standard configurations.

As ISPs and ASPs become commodities, they must distinguish themselves from the competition. To do so, some are looking at offering customers services that are similar to MSPs, whereby the ISP acts as middleman. Other ISPs have acquired MSPs because of their management value; for example, Exodus acquired Service Metrics to provide response time management. In general, analysts anticipate MSP consolidation, with ISPs and ASPs acting as the primary consolidators.

Partnerships are becoming common, for example, those between Keynote and Digix, and between Keynote and UUNet. ASPs are also partnering with tool vendors and MSPs to provide management services similar to those of ISPs; for example, PeopleSoft with Qwest, and Corio with Marimba. From their side, organizations must gauge whether these management services are sufficient, or if they should be supplemented.

A NEW BUSINESS MODEL: SERVICE VERSUS PRODUCT

At present, software vendors still generate the majority of Web site management products, which have comprehensive capabilities that provide testing, internal performance benchmarking, and site monitoring management tools. However, those considering an investment in an enterprise management system should consider the new business model in town. While vendors have traditionally productized enterprise management, the market for network, systems, and Web site management can now be segmented into service and software.

Luminate, for example, initially sold enterprise management as a product, but is now trying to reposition it as a service. As it moves from a pure enterprise application software provider to a service provider, it is managing applications and the Internet infrastructure. The MSP offers a series of services that let IT managers monitor the health of their E-business infrastructures, using a small downloadable tool and a subscription to Luminate.net.

The MSP is giving away a sizable piece of its offering by letting customers download its Mamba performance monitoring tool for free. The
MSP expects that buyers will then plug into more advanced tools online for a monthly fee.

Mamba’s package of Web server software and Java servlets tests events, performance, and availability. It can automatically discover network assets and do real-time testing — without a major deployment and without installing agents. Thousands of copies of Mamba for SAP R/3 have already been downloaded. Luminate also offers Mamba for Windows NT and Mamba for Oracle databases. Prices range from $50 per server per month for the Windows version, to $350 per server per month for R/3, to $500 per server per month for Oracle.

To motivate Mamba users to become paying customers, Luminate provides small software bundles called “energizers,” by which the software communicates with Luminate.net. When customers plug into the Luminate.net site, they obtain expanded views of the data that Mamba collects, including graphical reports of performance over weeks or months. They also receive daily e-mail hotlists, which indicate trouble spots in the enterprise.

Via Luminate.net, subscribers can drill down into specific reporting areas, and access a library of help and support files. The service allows customers to monitor effectively, and retain important data, which would otherwise be very time-consuming and difficult to do.

For its part, major MSP Keynote has an approach that sells only services — not software. And NetSolve offers management services that focus specifically on network performance and availability, rather than application behavior. As for the main enterprise management vendors, they will either buy management service companies, or provide a management service with their own tools, as an offshoot of their services organization, thereby productizing it. However, this is not their strong suit.

MOVING TOWARD STANDARDS

There are already so many MSPs that they cannot all survive; so there will be consolidation. Companies have the need to manage all elements; monitoring their response time, and all protocols to and from them. Correlating all this presents a problem, and the solution is not available as a holistic tool. Therefore, organizations need an integration point, such as a performance repository or response time event console. While this is not holistic, the information is integratable, and Micromuse, for one, can serve as an integration point.

In addition, Extended Markup Language (XML) will enable data-sharing among multi-vendors. To this end, the Distributed Management Task Force, Inc. (DMTF) provides a Web-based Enterprise Management (WBEM) roadmap to give customers the ability to manage all their systems, regardless of instrumentation type, through the use of a common standard.
On October 19, 1998, the DMTF announced the first version of its XML Encoding Specification, to encode the Common Information Model (CIM) schema in XML. The specification defines XML elements, which can be used to represent CIM classes and instances. It will enable companies to leverage Web technologies to manage enterprise systems. Thus, XML lets industry groups worldwide rapidly define and implement standards for interoperability across diverse computing environments and technologies. WBEM was initiated by BMC, Cisco, Compaq Intel, and Microsoft, but was later incorporated into the DMTF.

THE MSP FUTURE
Organizations have an increasingly complex, expanding infrastructure to manage. Even if the corporate infrastructure is manageable, the E-business environment presents new management challenges. In the recent past, efficient management provided E-businesses with a competitive advantage. Today, however, availability is no longer an option. If sites are not as or more available than the competition, organizations are no longer in business. So companies realize that management and availability have gone from being a competitive advantage to a mission-critical necessity.

The MSP premise used for the Web has helped the infrastructure management business. In the past, most organizations saw systems and applications management as a blackbox. Companies knew they needed it, but did not understand the bottom-line focus. Now they understand the business significance of management.

MSPs represent a growth market. Analysts predict that every Global 2000 company will have an MSP by the end of 2001. They also anticipate that MSPs will represent a multibillion dollar market in the next few years, reaching the $4 to $5 billion range.

The Self-integration Imperative
However, because systems, applications, and Web management represent a niche market, companies will likely use a combination of MSPs, rather than working with a single company. For example, while they might use BMC for performance monitoring, they would still subscribe to Keynote for Web management. In choosing MSP vendors, companies should prepare to do self-integration in three to four years, identifying and covering all their systems management needs. For example, they should determine what access to tools they need for internal process integration, so they can deal with alarms internally.

Problem Resolution
Most MSPs today find potential problems and notify the customer company, which then fixes the problems. Very few of today’s MSPs actually
fix the problems they uncover. Some analysts believe MSPs are therefore missing a key component. If the company has neither the time nor money to invest in monitoring business-critical networks or applications to ensure they are all up and running, it might not have the means to fix mission-critical problems.

Partnering with an E-support provider could shore up this gap, whereby MSPs form solid partnerships with such E-support companies as Motive Communications and Support.com. MSPs would thereby gain competitive advantage and a stronger customer relationship. E-support providers would gain entrée into a new business market — and customers could fix problems in a timely manner, thereby keeping their business running. In addition to E-support providers, newer MSPs are emerging, which offer both problem identification and problem resolution; one such is SiteLite.

Market Shakeout
Given the market need for MSPs, the future will undoubtedly see a lot more vendors, venture capital, and functionality. In fact, some analysts predict an explosion of new MSP entrants, followed by a shakeout and a lowering of prices as vendors commoditize — thus providing capabilities for dollars.

Because the MSP is an unproven model, some vendors will go under. They will find the cost of tool ownership and the number of failures high. In addition, customers can easily change MSP allegiance, because there is a low switching cost — especially when compared with traditional software and services.

Furthermore, when customers pay a service fee, they simply get a service level agreement (SLA) as a commitment. For example, while an MSP might specify 100 percent availability, speed is not mentioned, so the vendor is only policing SLAs.

Some MSPs offer free service during the time of an outage. However, an ISP can lose $100,000 an hour every eight hours it is down, while a power company could lose $1.5 million. In such cases, the free $1000 service provides no equity.

This will have to change so that MSPs add more management capabilities and monitoring tools and shore up their service levels, backing it up by a rock-solid environment. Because this will cost more to do, it will kill some vendors. However, a number of large ones will remain.

Differentiating Offerings
Not only will MSPs have to deploy a pretty comprehensive network, but every ISP will have to offer management services. In addition, as ASPs move into the Web site management space, both ASPs and MSPs will potentially offer services ranging from Web speed monitoring to commer-
cial transaction tracking and usage analysis. When software vendors and service providers compete for the same customers, services and products will converge, and MSPs will bundle their services with the appropriate software products.

MSPs are already acquiring such products. For example, Keynote Systems recently acquired Velogic, a provider of load testing simulation services. Keynote already offers E-commerce customers quality-of-service reporting on performance criteria such as downloading speeds, and the demand for this service is high. Velogic expands Keynote’s services so the two are strategically complementary. Companies can now test their Web sites before going live, measure real-time performance after the site is up and running, and subsequently perform diagnostic maintenance.

Of Control and Value

Organizations moving to MSPs give up some control, so companies are just starting to trust them. It helps that MSPs sometimes provide a free tool for organizations to try out. Still, IT cannot give up control completely because people know they will be fired if the E-business site goes down.

While management platforms provide an all-encompassing solution for all operations, MSPs tend to be based on point products; offering help desk, performance management functions, and the like for people to use on a day-to-day basis. Thus, MSPs are generally niche players, largely providing a departmental rather than an enterprisewide solution.

MSPs’ unique value is in providing functions that are difficult for an organization to do on its own, such as building enough storage space or performing security intrusion testing. And, although innovations are coming, companies using MSPs are already seeing value today.

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