

## WHITE PAPER

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### Managed Services: An Industry Built on Trust

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#### IDC OPINION

Many organizations have mastered the art of developing, operating, and maintaining their information systems in-house in an effort to gain a competitive advantage. They often engage in building custom solutions to meet specific business needs. And they employ dedicated teams of IT specialists who develop and operate complex information systems.

But as technology has progressed, it has become more commoditized, which makes it possible for different organizations to possess increasingly similar capabilities. As a result, for many organizations, IT has become less of a competitive differentiator. At the same time, because of its pervasiveness, IT has only increased in its importance to the ongoing operations of the business.

The commoditization of technology has led an increasing number of companies to offload the management of much of their IT to third-party service providers. These service providers often have the scale, methodologies, and processes, plus a pool of specialized capabilities, to deliver IT services at lower cost and often with comparable or even higher quality than an internal IT organization. However, companies aren't jumping into the managed services pool headfirst; instead, they are doing their due diligence. IDC research shows that potential adopters are looking for service providers that maximize the benefits and minimize the risks associated with adopting a managed service.

Sun Microsystems' managed service approach accentuates the positive factors and mitigates the negative factors associated with the adoption of a managed service by leveraging — among other things — the following:

- A one-stop, hassle-free Web-based portal for proactive content delivery of inventory management, event monitoring, trouble ticketing, and summary reporting tools
- An automated, flexible, and cost-effective approach to delivering IT services
- Full transparency and customer control through mutually agreed-upon security policies, service-level agreements (SLAs), and detailed reporting

## HOW TO READ THIS WHITE PAPER

In this white paper, we leverage IDC survey data to define the factors that either drive or inhibit the adoption of a managed service within the enterprise. In addition, we add our insight, highlighting specific factors that readers should take into consideration when evaluating whether the adoption of a managed service works for their organizations.

The results of IDC's 2006 *IT Outsourcing Survey* were used to identify the factors that are critical to making sound managed service decisions. In this survey, we posed several questions to over 300 respondents relating to the adoption of a managed service within their companies. The responses to these questions informed our thinking concerning a company's decision to insource or outsource the management of its IT operations.

Finally, we reference Sun's approach to managed services and highlight how it accentuates the positive factors while mitigating the negative factors associated with adopting a managed service.

## EVALUATING THE FACTORS

This section identifies the factors that positively and negatively influence companies' decisions concerning the adoption of a managed service. As referenced in the preceding section, we used IDC survey results to glean insights into these factors.

IDC has gained insight into these decision factors by fielding a demand-side survey. The results of that study formulated our thinking on how managed service adoption decisions are made within the enterprise. In this section, we discuss each factor — highlighted in Table 1 — and identify how successful service providers accentuate the positive factors and mitigate the negative factors influencing an enterprise's managed service adoption decisions.

**TABLE 1**

Leading Positive and Negative Factors That Influence the Managed Services Versus Insourcing Decision

Positive Influencers	Negative Influencers
Cost savings/budget pressures	Loss of control
Lack of internal knowledge/expertise	Lack of service provider agility
Improved quality of service	Lack of service provider knowledge of business/industry
Outgrown existing infrastructure	Security
	Risk of downtime

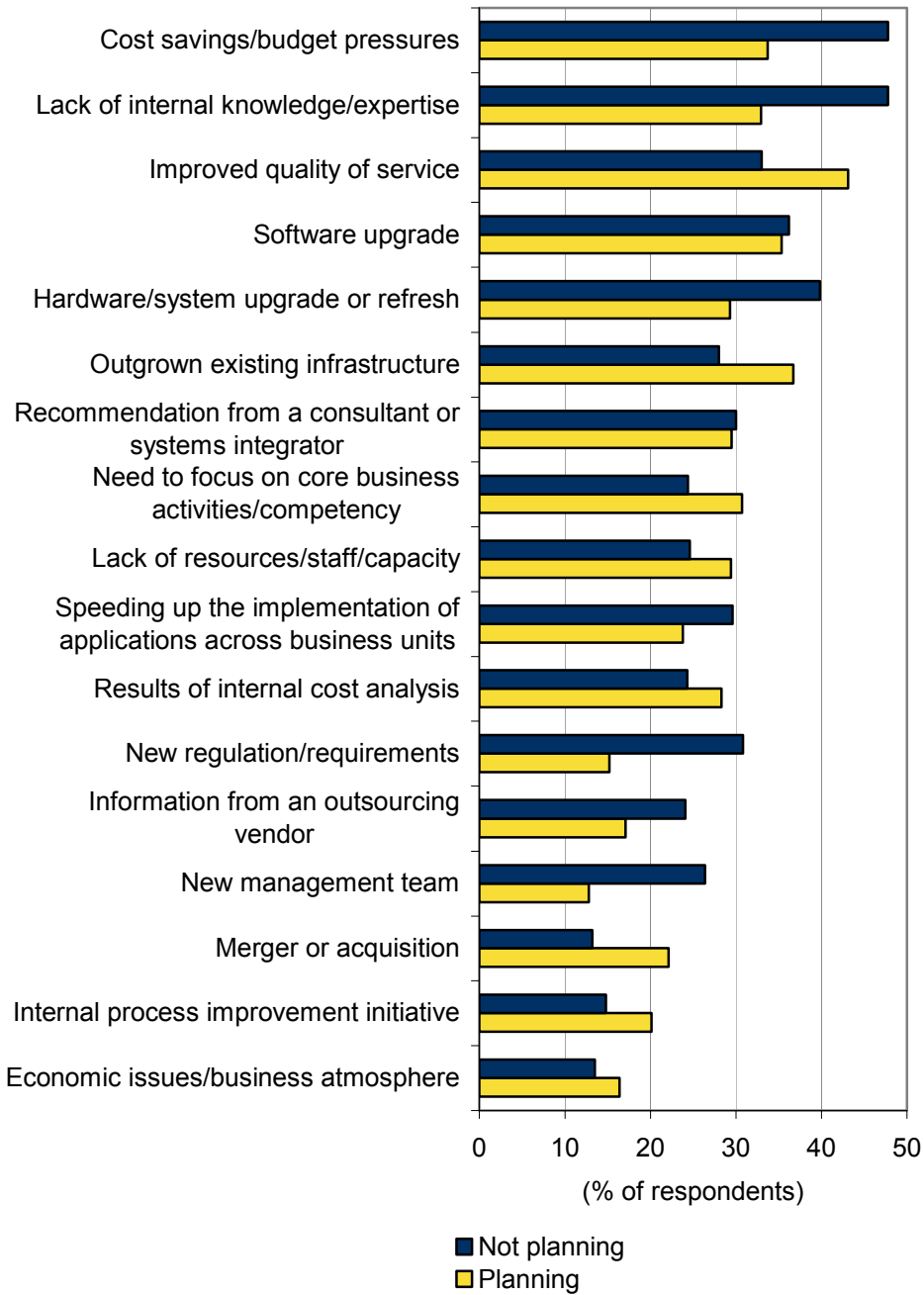
Source: IDC's *IT Outsourcing Survey*, 2006

### Positive Factors

In this section, we discuss each of the four leading factors that positively influence companies' thinking about adopting a managed service. We also identify what IDC believes that successful service providers do to enhance these factors. Figure 1 highlights the results of IDC's 2006 *IT Outsourcing Survey*. We asked respondents to select the factors that positively influenced their thoughts concerning the adoption of a managed service within their respective enterprises.

**FIGURE 1**

Leading Factors That Have Influenced Decisions About IT Outsourcing



Source: IDC's *IT Outsourcing Survey*, 2006

### ***Positive Factor 1: Internal Pressure to Seek Solutions That Lower Costs***

The survey results show that a larger portion of respondents who are not planning to outsource are positively influenced by the pressure to reduce costs than those who are planning to outsource. IDC believes that this is likely due to the maturity of their thinking concerning the managed service value proposition.

Traditionally, outsourcing has been tightly associated with lowering costs, the obvious result of the commoditization of IT. But as companies become more accepting of a managed services solution, their thoughts begin to deepen and operating concerns take on increased importance.

In addition, IDC research shows that respondents who are not planning to outsource have lower expectations concerning the potential cost savings driven from adoption of a managed service. IDC survey results show that of those who are not planning to outsource, only 18% expect cost savings between 10% and 19% while 25% expect to save between 20% and 29%. Of those who are planning to outsource, 15% expect to save between 10% and 19% while 39% expect savings between 20% and 29%.

IDC has found that these savings often come from the following areas:

- ☒ **Increased efficiency.** Successful outsourcers leverage economies of scale to lower their per-unit costs. In addition, many service providers have adopted highly automated systems, which do triage, flow-through provisioning, and other highly repeatable tasks, thereby significantly increasing operating efficiency and reducing complexity.
- ☒ **Increased control of capital costs.** Outsourcing converts fixed costs into variable costs and thereby releases investment elsewhere into the organization. This enables a company to redirect capital into revenue-producing activities.
- ☒ **Reduced labor costs.** Outsourcing lets a company focus its human resources where it needs them most — that is, to pursue opportunities that are strategic to the company.

### ***Positive Factor 2: Lack of Internal Knowledge and Expertise***

Respondents to the survey suggested that the availability of skilled internal knowledge and expertise is an important positive influencer to adopting a managed service. In fact, respondents who are planning not to outsource — in the near future — rated a lack of internal knowledge and expertise as high as cost savings. This response highlights something that IDC has been seeing signs of for quite some time: a critical shortage of IT talent is becoming a stronger and stronger influencer of outsourcing activity.

Technology has introduced an era of rapid change. Keeping up with these rapid changes, from a technology perspective, limits a company's resources and capital, which could be used on high value-added activities such as new product development and marketing. As a result, organizations have been challenged with constantly updating and scaling the resources required to support this ever-changing IT environment. This has led many organizations to turn to a third-party service provider that can enable their clients to change their infrastructure and resources rapidly, without imposing a strain on their clients' capital and resource allocations.

Managed service providers are well-positioned to provide their customers with this capability. For instance, a company could hire several system administrators to run its network in-house and find the collective wisdom limited to the specific experiences of that small team. A third-party service provider leverages real-world experience, gleaned from facing an array of problems across a diverse customer base. In addition, the outsourcing firm is simply in a better position to benefit from — and propagate — "best-of-breed" practices.

### ***Positive Factor 3: Outgrowing the Existing Infrastructure***

Today, CIOs are dealing with an era of unprecedented change. They are tasked with facilitating the rapid rollout of new products, struggling under the weight of new regulations, expanding globally, integrating new and complex technologies into their existing infrastructure, and dynamically scaling the infrastructure to meet fluctuating demand.

CIOs need to build an IT infrastructure that is efficient — to keep CFOs happy — and also innovative enough to keep the business competitive. The IT infrastructure has to keep pace with enterprise users who are demanding access to an ever-increasing amount of data on a 24 x 7 x 365 basis. For many cyclical businesses, increases in the volumes of customer transactions can be radically volatile, which can result in systems that are, for the most part, underutilized. These complexities — of which we are just scratching the surface — lead many CIOs to throw up their hands and give this burden to a third party.

In response, many service providers leverage scale and advances in technology — such as virtualization, technology standardization, and automation — to build an infrastructure that can appropriately scale with their clients' requirements. These leading service providers also leverage proactive capacity planning tools that enable customers to gain insight into utilization statistics and gauge current capacity versus expected capacity over a certain time frame.

### ***Positive Factor 4: Improvement in Service Quality***

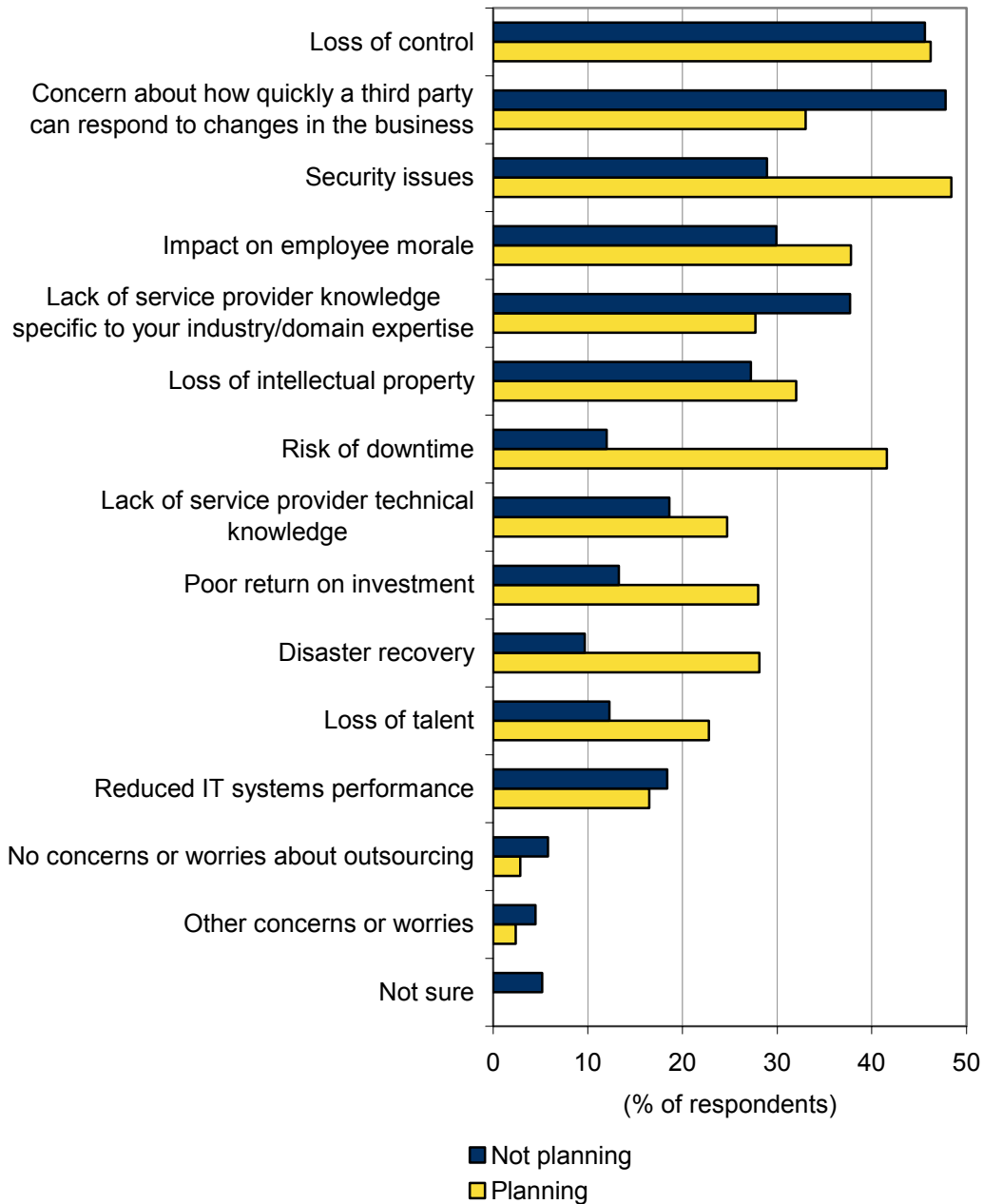
This is a leading positive influencer for those respondents who are planning to outsource. It is also a leading positive factor for those who are not planning to outsource in the near future. Many organizations, instead of investing in their own IT infrastructures, would rather leverage the investments made by a third-party managed service provider. This enables organizations not only to avoid making these investments but also to leverage best-of-breed systems, people, and processes to which they otherwise may not have had access. As a result, many organizations benefit from improved service quality. Leading service providers invest in skilled talent, resilient infrastructures, and proactive management capabilities. They also leverage a strong partnership ecosystem that enables them to provide both broad and deep capabilities to their end users. In addition, service providers leverage highly transparent and actionable SLAs that clearly communicate mutually agreed-upon performance levels. As a result, many organizations realize an increase in service quality following the adoption of a managed service.

## Negative Factors

In this section, we discuss each of the five leading factors that negatively influence companies' thinking about the adoption of a managed service. In addition, we identify what IDC believes successful service providers do to mitigate these factors. Figure 2 highlights the results of IDC's 2006 *IT Outsourcing Survey*. We asked respondents to select those factors that negatively influenced their thoughts concerning the adoption of a managed service.

**FIGURE 2**

Leading Factors That Inhibit Decisions About IT Outsourcing



Source: IDC's *IT Outsourcing Survey*, 2006

### ***Negative Factor 1: Loss of Control***

Today's successful service providers are giving CIOs peace of mind through insight and transparency. Outsourcers are decreasing their customers' concerns with control by opening the channels of communication with their customers. The Internet has enabled a much more connected way of doing business. Leading outsourcers have built portal-type products — accessed via the Web — that enable customers to have a complete window into the operation. These portals also provide customers with a complete and up-to-date picture of what services a customer is buying so they can ensure that they are making the most efficient use of their IT investments. Successful outsourcers leverage these tools as a means to build productive and stable relationships with clients. These collaborative capabilities establish open lines of communication so that the customer retains a sense of control.

We would be remiss not to point out that problems are likely to occur between the customer and the outsourcer from time to time. These issues are often very similar to those faced by a company and its internal IT department. Successful service providers are proactive and recognize that transparency is critical to maintaining trust and a sense of perspective. Leading service providers craft contracts that communicate exactly who is responsible for what and eliminate the "gray areas" that often lead to confusion.

At the heart of the outsourcing relationship is the SLA, which is the contract that binds the relationship. It defines the boundaries of the relationship, measures the quantity of work produced, and measures the quality and responsiveness of the third-party provider. Leading service providers craft well-defined SLAs and ensure that they are highly transparent. These SLAs should measure performance across the following four categories: the volume of work performed by the third-party providers, the quality of the work performed, the responsiveness of the provider, and the efficiency of the provider.

In addition, successful service providers are providing their customers with the ability to understand whether or not they are leveraging the latest technologies by including aggressive technology refresh clauses in their contracts.

### ***Negative Factor 2: Risk of Downtime***

Respondents appear to be concerned with the risks associated with downtime. This concern is highly warranted because IT has become as critical as the arteries in the human body. And, more and more companies continue to transact business autonomously over their IT infrastructures (i.e., ebusiness). This only serves to elevate the risks associated with even an infinitesimal amount of downtime.

Managed service providers are critically aware of this risk and have pushed their technology partners to develop highly resilient systems and software to mitigate it. And from a technical perspective, many have. The leading service providers have designed highly redundant, highly resilient IT architectures that enable nearly always-on availability. A service provider's willingness to share in the risk undoubtedly heightens its sensitivity to mutually agreed-upon performance metrics.

Successful service providers mitigate the risk of downtime by putting in place clear and comprehensive SLAs that set expectations for both sides of the relationship and provide targets for accurately managing performance against these objectives. Leading service providers provide metrics across the following categories:

- ☒ **The quality of work performed.** These metrics measure operational metrics that drive service delivery quality. Examples of these metrics include service delivery, standards compliance, and satisfaction.
- ☒ **The responsiveness of the service provider.** These metrics measure the amount of time it takes a service provider to handle specific client requests. These requests can include the time it takes to implement, the time it takes to acknowledge and give status, and insight into the average request backlog size.

### ***Negative Factor 3: Lack of Service Provider Agility***

Leading service providers leverage a pool of highly talented IT professionals. This relieves an organization of having to train and retrain employees, recruit the resources it lacks, and terminate resources that aren't needed. This approach enables an organization to leverage the appropriate resources when needed rather than keep such talent on the books full-time. As a business changes, its outsourcing partner should be able to quickly identify new team members and assign them to the organization as the need arises.

Leading service providers are able to change the financial model, adjust the IT services portfolio, and alter the technology landscape to meet the changing needs of the customer.

Flexibility helps build relationships by enabling companies to adapt SLAs and other contracts that provide for shorter lock-in periods that can change scope. Within the terms of the agreement, an enterprise may need to change IT services, technical architecture, service management processes, cost structure, and staffing profile.

### ***Negative Factor 4: Security***

Leading service providers have gone through comprehensive third-party security audits with a reputable third party like a Big 4 accounting group. By law, service providers that are handling financial or healthcare data must have an information security plan that has administrative, technical, and physical steps required to safeguard data. Successful service providers conduct audits against vertical industry standards such as HIPAA or Sarbanes-Oxley and other international regulations.

### ***Negative Factor 5: Lack of Service Provider Knowledge of Customer's Business and Industry***

Organizations often have the perception that IT and the business will become increasingly misaligned if they adopt a managed service. This misalignment is likely to result if an organization works with a partner that doesn't possess an in-depth understanding of its client's business. It often limits the service provider's ability to craft SLAs that align with its customer's business requirements.

Leading service providers often put in place processes that enable rapid learning of the customer's business. These processes mitigate the risks of misalignment between the customer's business requirements and the third party's operational processes and service levels. In addition, an open collaborative environment must be fostered between the customer and its third-party managed service partner. This enables a real-time understanding of the customer's business requirements.

## CHALLENGES

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### Service Providers

The single most perplexing challenge to service providers is instilling trust in those companies that are "on the fence" about outsourcing. This industry is built on trust, and instilling that trust is no trivial matter.

There is a continuum of where companies are — in terms of the maturity of their thinking — concerning their outsourcing decisions. Some companies — although they may have outsourcing in the back of their minds — currently do not outsource and have no immediate plans to do so. Moving along the continuum, we find those that are currently not leveraging a managed service but are considering it in the near term (next 12 to 24 months).

Where potential enterprise IT outsourcing consumers are in terms of their thoughts about outsourcing influences their decision processes. Figure 2 shows responses — from respondents who currently insource the management of their IT — to a question concerning the factors that inhibit a company from adopting a managed service. The objections or inhibitors can be classified into two segments:

- ☒ **Trust.** These factors include loss of control, lack of service provider agility, and lack of service provider knowledge of a client's business and of the industry in which it primarily competes.
- ☒ **Operational.** These factors — in addition to the trust factors — include risk of downtime, disaster recovery, and security issues.

Customers who are not considering an outsourcing solution simply don't trust that a third-party service provider can or will treat its customers' business as it treats its own. Customers want a service provider that is agile enough to change in lockstep with their business and knowledgeable enough to grasp the importance and nature of change within the context of their business and industry. Potential consumers of outsourcing service(s) want to understand "how important they are to their outsourcing partner(s)." Before customers begin to seriously consider an outsourcing solution, they have to trust (at a high level) that a third-party service provider can or will treat its customers' business as its own. Customers who fail to trust at this level are not ready to think about the operational considerations associated with making an outsourcing decision.

Those planning to outsource — at a minimum — trust that a third party can operate their IT environment in a manner similar to the way it operates its own. They have evolved their thinking past trust and onto more operational considerations. These operational considerations include things like downtime, disaster recovery, and security. They often compare and contrast this information against their own internal IT capabilities as well as the capabilities of other IT outsourcers.

## SUN MANAGED SERVICES OFFERING

The Sun Managed Services offering provides a flexible portfolio of monitoring and management services. Sun assumes responsibility for managing all or some of the IT infrastructure, from the network through the operational application layer. Sun is then responsible for ensuring that defined service levels are met, resource gaps are filled, and change is managed within the environment.

In this section, we highlight how Sun's managed services approach accentuates the positive influencers and minimizes the negative influencers associated with adopting a managed service.

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### Positive Factors

IDC research shows that potential outsourcers see the following as the leading positive factors that influence their decisions when making managed service decisions. Factors include utilizing outsourcing as a means to lower cost and leveraging the knowledge of the outsourcer's staff. Potential outsourcing adopters also are prompted to adopt a managed service when they incur broad changes to their systems (hardware or software) architecture. Potential outsourcers turn to third-party providers to leverage their low-cost delivery and skilled resources, which enables them to direct their internal resources to projects of greater strategic significance.

#### ***Positive Factor 1: Internal Pressure to Seek Solutions That Lower Costs***

Traditionally, outsourcing has been associated with lowering costs. Managed service providers often leverage scale efficiencies to increase the asset intensity of the business by lowering capital and labor costs.

Sun's approach can significantly lower TCO by reducing a company's management software license fees, minimizing the impacts of technology changes, improving operational efficiencies, and lowering engineering and integration costs.

Sun leverages automated, simplified, and cost-effective delivery of IT services with managed service solutions. This approach helps reduce the number of IT professionals required onsite to monitor and manage the customer's systems. Remote management of client's operations allows Sun to reduce the IT administration time spent on monitoring and management tasks. In addition, this enables the company to gain the highest utilization of its employees by leveraging third-party resources, thereby removing underutilized resources from their payroll. Outsourcing often-manual tasks such as patch management — where patches are identified, staged, and installed (often during off-hours) — saves the client from having to hire staff to do this internally. Leveraging third-party resources also frees IT personnel to focus on projects and results in a significant decrease in costs and improvements in productivity. The Sun solution provides a company with the option of transferring critical operations management to the Sun payroll while enabling subject-matter experts to remain onsite to focus on application development.

In addition, Sun has a proactive approach to account management. Regular reports are published about cost overruns, contract disputes, and customer satisfaction. This proactive approach to account management enables customers to more effectively manage their costs.

Sun also uses various filtering and correlation techniques to reduce the number of incident tickets for a particular company in any given year. This results in both better service quality and lower cost because triage is automated, reducing the number of IT staff hours for platform monitoring and management. Therefore, engineers are freed to work on other more pressing issues, increasing their productivity.

### ***Positive Factor 2: Lack of Internal Knowledge and Expertise***

Sun customers have access to a large and experienced talent pool. Experts are located in operations centers in Linlithgow (Scotland); Chennai (India); and Ashburn, Virginia. Sun combines proven methodologies, skilled resources, and innovative technology based on the ITIL framework for a centralized, systematic approach to deliver Managed Operations solutions.

ISO 27001 compliance certification was just achieved in the United States, and certification review is scheduled for EMEA and APAC in 2008. The Services organization is certified in the United States. Many of Sun's resources are ISO 27001 security certified. In addition, many resources are ITIL certified — all delivery staff members are trained on ITIL and more than 30% are certified. The methodology includes procedures, documentation, and integrated monitoring and management tools that enable Sun operators to view the status of critical systems in near real time. Since adopting the ITIL framework, Sun has been able to increase the availability and the success rate for change implementation.

Most of the implementation managers in the United States are PMP certified. In Europe, many of the implementation managers are PRINCE 2 certified. Sun subject-matter experts and technology principals have many of the following certifications and accreditations: Cisco CCNP and CCIE, Microsoft MCP and MCSE, Oracle DBA, EMC Admin, and ISACA Security CISSP.

### ***Positive Factor 3: Outgrowing the Existing Infrastructure***

Sun managed solutions enable customers to better deal with the complexities associated with having to expand their infrastructures to support rapidly accelerating and decelerating capacity utilization.

Sun takes a continuous life-cycle approach to capacity planning by looking at the customer's entire environment — the network and infrastructure components across the operating system, software, hardware, storage, applications, and so on. This approach is designed to meet the customer's current needs and is flexible enough to meet the customer's long-term goals. The tight integration of people, process, and technology enables Sun to deliver predictable, secure, and automated solutions.

Customers can purchase the right to use only what Sun infrastructure they need when they need it. Customers can leverage Sun's Utility Flexible Pricing and scale up and scale down capacity to meet fluctuating demands on the system. Sun's scalable, modular approach to IT service delivery is available via a global delivery model.

When challenged with meeting fluctuating demand, just getting the additional servers in the door can become a real challenge. Sun leverages its Sun Advantage partnership ecosystem to remain highly responsive to the customer's need for speed. Advantage partners keep local stock and can deliver servers, configured and ready to install, in one hour.

#### ***Positive Factor 4: Improvement in Service Quality***

Every business wants to increase the quality of its IT service delivery. But, like everything else, it comes down to a cost-benefit analysis. Often the cost and the management attention required to mitigate the risks associated with less than optimal service delivery represent an expense that a company is unable or unwilling to bear. So customers begin to ask, How can we leverage a world-class operation without making the up-front and ongoing capital investments required?

Sun leverages its investments in hiring talented resources and building proactive management tools and processes globally to offer an always-up, highly responsive service backed by highly transparent and flexible SLAs.

Sun can lower a customer's business risk by offering more predictive delivery outcomes. Sun will collect, analyze, maintain, and report on availability data, such as device uptime and Web site availability, to provide a continuously available, day-to-day operating environment for the customer's critical processes. Sun will help align customer SLAs and operational consolidation to offset non-core activities and improve the focus on critical areas. Sun leverages a strong pool of talent to ensure the best service quality.

Sun can leverage its global infrastructure to enable services to be deployed anywhere in the world. ISO 27001 compliance certification was just achieved in the United States, and certification review is scheduled for EMEA and APAC in 2008. Sun is active in over 15 countries with the capabilities to support seven languages — English, French, Spanish, German, Japanese, Korean, and Mandarin Chinese — and will offer additional language support for special engagements. In addition, Sun subject-matter experts and technology principals are certified and accredited in a range of technologies, including hardware, operating systems, networking, security, storage, and database technologies.

In an effort to continually meet or exceed customer expectations, Sun Managed Operations conducts quarterly reviews with all of its customers, in part to improve customer satisfaction and in part to offer recommendations on how they can improve their environments. Certain customers elect to have these reviews take place monthly or even weekly.

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#### **Negative Factors**

IDC research shows that potential outsourcers see the following as leading factors that negatively influence their decisions concerning the adoption of a managed service. Factors include loss of control, risk of downtime, lack of service provider agility, security concerns, and lack of service provider knowledge about the customer's business and industry.

##### ***Negative Factor 1: Loss of Control***

The managed services industry is built on trust. Potential adopters are afraid to give away control. Sun eases customers' concerns about losing control through selective sourcing and by increasing transparency through the use of intuitive dashboards and portals.

Sun's selective sourcing approach enables customers to have managed only what they want managed for the length of time they want it managed. Many outsourcers follow a traditional approach where they take on as much of the customer's IT environment for the longest term possible. Companies can rapidly lose control of their environment if they follow this approach. Sun aims to keep customers in control of their IT environment. Sun offers customers the flexibility to choose which part of the IT environment to outsource and decide how and to what extent to share the workload with Sun.

The Sun approach leverages technology tools that enable customers to access information through intuitive dashboards and portals. Sun's ControlTower Appliance (CTA) enables remote operations management anytime, anywhere. The CTA is coded to monitor nearly any piece of infrastructure, anywhere in the world. This scalable technology consists of a ControlTower, including ITIL-based change and incident management processes. It is deployed at the customer's site and forwards information generated by hardware and software via logs. Sun puts control of IT operations into the customer's hands. Customers select which part(s) of their operations they want Sun to manage and for how long.

ControlTower consists of a management agent deployed on the servers or native agent devices such as routers and firewalls. These agents deliver messages to the ControlTower Appliances that live inside customers' networks. All communications between the agent and the CTA use open standards protocols that allow customers to collaborate on security controls with Sun to help ensure that the management solution conforms to the customers' security policies.

The CTA also provides a capability known as JumpGate, which is the management interface to interactively control managed servers and devices. This is accomplished using native management interfaces of these servers and devices, such as Microsoft RDP, SSH, and Telnet. ControlTower enables hardware and software critical event monitoring, reporting and trending for performance metrics, patch management, deep security scanning, automated triage, configuration maintenance and management, and compression of event and management traffic.

ControlTower lets organizations carefully select the capabilities needed to retain business value. As a base, enterprises may want to retain IT service management, architecture/data management, and business consulting. Staff can use the Internet to access Sun's remote services, including system monitoring, creation of reports on performance trends, and automatic receipt of notifications on certain events in order to anticipate and resolve issues before they impact availability and performance.

### ***Negative Factor 2: Risk of Downtime***

Service providers all deploy highly resilient technology infrastructures that enable almost always-on service. Today, this is not a competitive differentiator but rather a table-stakes capability that is vital to winning a specific deal. From IDC's perspective, the process of proactive identification, remediation, and transparency and a focus on continuous improvements in service delivery differentiate a service provider from its competition.

Sun leverages clear, robust, flexible, and transparent SLAs, which contractually obligate Sun to ensuring uptime. The accurate definition of the service framework or functional components, and the ability to measure these elements, is critical for implementing an effective SLA. In traditional outsourcing models, different delivery organizations are often responsible for different components that go into delivering a service.

This clear definition and measurement process helps prevent any disagreement about accountability and responsibility, which are both very important when penalties or bonuses are impacted. The use of more sophisticated tools also allows for the development of dashboards that show where the different levels of management can maintain their appropriate view of the delivery of the service levels and the impact on customers, if necessary. The following data illustrates this idea.

Sun follows a clear methodology concerning communication, giving certain stakeholders access to the information that is important to them. Senior business executives need to know the impact that a disruption of service has on their key business processes. IT executives need to understand the effect of disruptions on the quality of services delivered to their internal customers. Finally, technical managers and IT staff need to better understand the root cause of the problem and the required steps to remediation. Traditionally, there has been an expectation that the provider will pay some defined penalty if the SLA is not met. The nature of these penalties is negotiated based on the tight definitions mentioned previously.

Penalties are still relevant and occur in most SLAs, but a different approach is the incentive for continuous service improvement. In this approach, the provider agrees to work at improving the service delivery based on an agreed-upon formula and is then paid a bonus for achieving the required improvement. The amount and types of these bonuses and penalties will vary among internal and external service providers. This approach can have benefits for all parties involved and requires a very tight definition in the SLA for determining when an incentive or penalty should be paid.

### ***Negative Factor 3: Lack of Service Provider Agility***

Potential users are worried that a third-party service provider will be too rigid and will not be able to adapt to the changing nature of their business. Sun will deploy people, processes, and technology to address customers' unique needs for security, storage, and operations management. And since selective sourcing happens in shorter-term contracts, customers' needs can be re-evaluated on a regular basis. Contracts are available to cover any size IT requirement, so customers can scope their outsourcing solution to fit their needs today and ramp up or ramp down as their business needs evolve.

For service providers, sustaining a healthy sourcing relationship for the long term requires a high level of adaptability. A customer's requirements aren't fixed because its business isn't fixed. The contractual terms and conditions should be flexible enough to meet the changing demands on a client's business. Sun understands that change is inevitable and doesn't believe in nickel and diming the customer every time a change request passes its desk.

Sun uses a selective sourcing model that allows companies to hire Sun on a limited basis. Sun will manage only the part of the IT environment that companies want managed, for the length of time they want it managed. For instance, some companies are comfortable with performing mundane, scheduled, and routine maintenance and other non-emergency activities. If so, Sun can also augment their internal skills by providing resources with in-depth skills to analyze the root causes of performance issues and address emergency situations on a 24 x 7 x 365 basis.

The Sun operations team provides remote product support and custom software integration across the Solaris Operating System, HP-UX, Linux, Windows, and legacy platforms. Services are available at every layer, from applications to entire networks, so companies can get specialized help 24 x 7 x 365.

When companies need to ramp up their IT staff for a limited time, the Sun Interim Operations management team provides short-term onsite staffing — typically in three- to twelve-month engagements — for new IT implementations. Sun consultants work at the customer site to improve and run the new datacenter environment, bridge occasional skill gaps, and fine-tune the customer's IT processes. As the engagement draws to a close, Sun consultants mentor and help transition the IT environment back to the end customer by handing over procedures to make sure the customer's in-house team is prepared to run the new IT environment.

Sun works with an ecosystem of partners to ensure that they are as flexible as possible in meeting customers' changing business needs. For example, Sun works with an assortment of service providers to build a highly flexible and responsive channel that meets clients' need for speed. When a server fails, many times the bottleneck involved in remediation is literally getting a new server in the door. However, Sun local partners will store inventory of parts and preconfigured servers to ensure that a new server gets in the door as fast as possible.

#### ***Negative Factor 4: Security***

Sun Managed Operations uses class A, ISO 27001–certified datacenter facilities. These datacenters are located in Washington, D.C., and disaster recovery is in London. Physical access to these datacenters is restricted to named individuals and requires biometric authorization.

All changes to the Sun Managed Operations infrastructure are tightly controlled via ITIL change management processes. Every 24 hours, a deep security scan occurs, in which any detected changes of new vulnerabilities released by software vendors are evaluated for impact to the platform. This process and the ongoing support of Sun Managed Operations delivery are provided by a dedicated team on a 24 x 7 basis. Access to all systems requires strong token-based authentication, which is logged and reviewed regularly.

Within the infrastructure, Sun Managed Operations delivery uses intrusion detection systems (IDS) and intrusion prevention systems (IPS). Sun purchased IDS/IPS software from diverse vendors to improve signature coverage and diversity of attack mitigation of these tools.

Every device server and environment metric is collected from the systems and delivered into the same monitoring frameworks used to support its customers. This provides continuous monitoring of performance, availability, and security of the core infrastructure.

Sun collects only information that is key to the delivery of services, such as performance event alarms and machine configurations, and avoids situations where privacy-classified information might be collected. This dramatically reduces the value of the actual messages should they be intercepted en route. Since only machine performance/health data is extracted, Sun Managed Operations does not maintain any privacy-related data types inside its core systems.

The data is delivered to the management center as an encryption XML message. Within the XML message, it is not possible to associate the message with a specific customer without access to the Sun Managed Operations correlation system.

***Negative Factor 5: Lack of Service Provider Knowledge of Customer's Business and Industry***

Sun has adopted a continuous improvement methodology that provides a framework for continuous learning. At the heart of the continuous improvement approach is the use of a facilitated method of brainstorming and involvement of providers, internal IT, and the customer to gain a wide and deep perspective of the customer's business. The continuous improvement methodology therefore facilitates a deep understanding of the client's business and the technology environment. Sun begins the process of learning with the Sun Service Definition workshop. The workshop brings Six Sigma methodology and Sun's practical real-world experience to the planning stages of the client's project. It allows business operations and IT to come together in the same room and reach agreement on the priorities that will best serve the company in the time frame required.

The workshop is intentionally flexible — just like the working relationship that it creates. Whether the customer is bringing Sun in as part of a major turnkey outsourcing initiative or simply trying to identify a strategy for selective outsourcing, a Sun Service Definition workshop gets IT and operations teams moving in the same direction.

The adoption of a continuous improvement methodology provides a framework for this process. A continuous improvement framework must harness the knowledge of the business, service delivery resources, and industry best practices. Using a facilitated method of brainstorming and involvement of providers, internal IT, and the customer, the Six Sigma method harnesses the knowledge and intellectual capacity of the enterprise. In using this method, the enterprise fosters a culture of innovation in which employees and partners understand that ideas are valuable assets.

The Six Sigma method — used for continuous improvement — harnesses the knowledge and intellectual capacity of the enterprise. The basis of Six Sigma is the continuous process of collecting voice-of-the-customer (VOC) data, analyzing its meaning, translating it to requirements, developing Critical-to-Quality (CTQ) statements, and acting to deliver benefits. This delivery of benefits starts again in the collection of VOC data.

## CONCLUSION

For many of the reasons mentioned in this study, an increasing number of companies are offloading their commoditized IT to third-party service providers. These third-party providers often have the scale, methodologies, and processes, plus a pool of specialized capabilities, to deliver these IT services at a lower cost and often with comparable or even higher quality than an internal IT organization. Among other things, leveraging this model enables companies to lower cost while also enabling their resources to focus on more strategic endeavors.

But don't expect these companies to jump into the managed services pool headfirst; instead, they will engage in extensive due diligence to identify those service providers whose solutions accentuate the benefits of outsourcing while also mitigating its risks. Sun Microsystems' managed service approach accentuates the positive factors and mitigates the negative factors associated with the adoption of a managed service by leveraging:

- ☒ An approach that enables a company to lower its IT total cost of ownership. IDC research shows that the leading driver of managed services adoption is lower cost. Sun's approach can lower the total cost of ownership by reducing IT management software license fees, minimizing the impacts of technology-related service disruptions, improving operational efficiencies, and leveraging scale efficiencies to increase the asset intensity of the business by lowering capital and labor costs.
- ☒ A deep pool of flexibly deployed talent. IDC research shows that a company's ability to leverage a third party's knowledge and expertise is an important positive influencer to adopting a managed service. Sun customers have access to a large and experienced talent pool. Experts are located in operations centers across the globe. Sun combines proven methodologies, skilled resources, and innovative technology based on the ITIL framework for a centralized, systematic approach to deliver Managed Operations solutions.
- ☒ A process that accurately measures and an infrastructure that rapidly scales to meet fluctuating demand. IDC research shows that cost and complexity associated with building and managing an adaptable infrastructure often lead a company to adopt a managed service.
- ☒ Its investments in hiring talented resources and building proactive management tools and processes globally to offer an always-up, highly responsive service backed by highly transparent and flexible SLAs, which often lead to improvements in service quality. IDC research shows that the potential of achieving higher levels of service quality by using a third-party service provider positively influences the adoption of a managed service.
- ☒ A selective approach to sourcing coupled with the availability of management tools — dashboards and portals — that enable increased transparency. IDC research shows that many companies are reluctant to adopt a managed service because they feel that they will lose control of their IT capabilities. Sun's selective sourcing approach enables companies to have managed only what they want managed for the length of time they want it managed. The Sun approach also leverages technology tools that enable customers anytime, anywhere access to information through the use of intuitive dashboards and portals.

- ☒ A highly resilient technology infrastructure that enables almost always-on service. IDC research shows that many companies are reluctant to adopt a managed service because it will increase their risk of experiencing downtime. The Sun approach goes beyond technology and provides clear, robust, flexible, and transparent SLAs, which contractually obligate Sun to ensuring uptime.
- ☒ Full transparency and customer control through mutually agreed-upon security policies, SLAs, and detailed reporting. IDC research shows that many companies are reluctant to adopt a managed service because they are concerned about security. All changes to the Sun Managed Operations infrastructure are tightly controlled via ITIL change management processes. Every 24 hours, a deep security scan occurs, in which any detected changes of new vulnerabilities released by software vendors are evaluated for impact to the platform. This process and the ongoing support of Sun Managed Operations delivery are provided by a dedicated team on a 24 x 7 basis.
- ☒ A continuous improvement methodology that provides a framework for continuous learning. IDC research shows that many companies are reluctant to adopt a managed service because they feel that the service provider will lack sufficient knowledge of a customer's business and of the industry in which it competes. Sun begins the process of learning through the Sun Service Definition workshop. The workshop enables business operations and IT to come together in the same room and reach agreement on the priorities that will best serve the company. It also enables Sun to gain increased insight into the client's business and the industry in which it competes.

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