

I D C E X E C U T I V E B R I E F

Network Management Services: A Cost-Effective Approach to Complexity

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Managing Complexity in the Extended Enterprise

Enterprises across all industries operate in complex and rapidly changing business environments and must constantly plan, implement, and execute strategies to grow revenue, improve operational efficiencies, and reduce costs. To achieve these objectives, enterprises are increasingly centralizing, automating, Web-/IP-enabling, and internetworking mission-critical processes and applications in order to streamline and integrate various operational aspects of the business. At the same time, enterprise ecosystems are increasingly distributed, with geographically dispersed supply chains of customers, partners, and vendors, as well as decentralized, mobile workforces — all of which depend on the network to conduct business operations.

Furthermore, technology and business requirements are constantly changing, resulting in added pressure on the network and those responsible for network management. Ongoing challenges include the impact of datacenter consolidation on network capacity and quality of service, handling the growth of network-dependent business applications, managing IP voice and video traffic to the WAN, accommodating shifting volumes of end users and remote sites, ensuring regulatory compliance, and providing comprehensive network security.

Given this environment, the responsibilities of network managers have increased exponentially, as have the expectations of those who rely on the network for business-critical communications and application delivery. Inside the networked enterprise, data streams are not just bits and bytes; they are purchase orders, invoices, design specifications, online transactions, and customer service interactions that must flow across the network reliably, securely, and in real time. Network issues that impede access to these applications can translate into diminished employee productivity, disputed production schedules, lost sales, and customer/line-of-business user dissatisfaction.

Large companies with the resources to support in-house staff, expertise, and centralized network management systems may be able to undertake comprehensive network management without too much difficulty. For smaller companies, this is typically not even an option. However, regardless of company size, businesses must balance the increasing cost and effort involved in managing the network with other business functions that also require time, resources, personnel, and management attention.

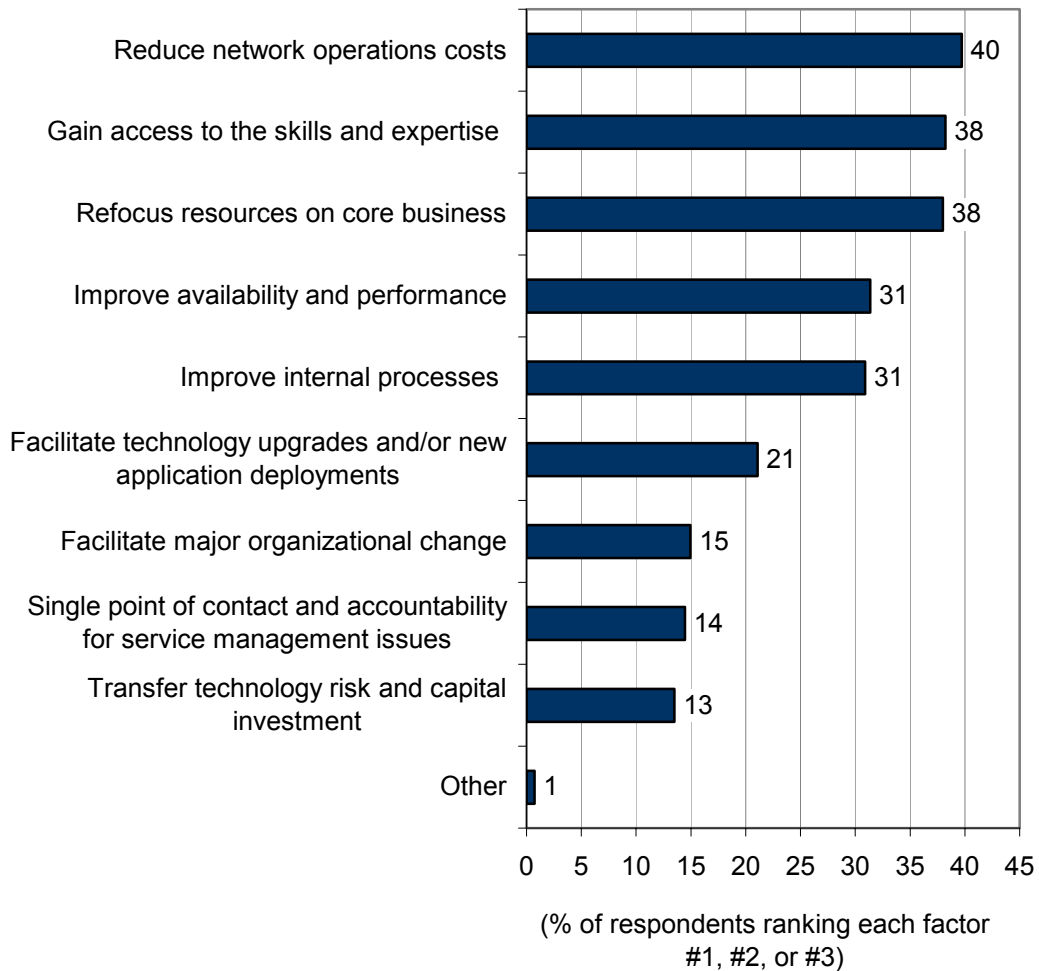
Network Management Services: A Range of Possibilities

The new era of networked applications and interconnected business processes yields heightened efficiency and productivity for enterprises. However, these benefits can be realized only with properly managed, scalable networks. The challenges involved in supporting mission-critical enterprise networks are prompting enterprises to look at alternative delivery models that can help achieve consistent, reliable network performance in a cost-effective, process-driven manner.

For example, the third-party service provider or outsourced approach to network management allows companies to offload responsibility for some of the tasks associated with keeping the network up and running. Specialists with scale, scope, technical expertise, and operational processes can drive substantially lower total cost of ownership and provide enterprises with consistent network performance and management discipline. Figure 1 presents IDC survey research on U.S. companies' top reasons for adopting the managed network services model.

Figure 1

Top Reasons for Using Third-Party Network Management Services



Note: Multiple responses were allowed.

Source: IDC's U.S. WAN Manager Survey, 2008

Specific benefits of the outsourced network management approach include the following:

- **Control of ongoing operational costs and initial capital expenditures.** Network management is a constant process of moves, adds, changes, and upgrades across all company sites. Working with an external service provider offers enterprises a framework for consistent network implementation across all business locations, continuity of operations, and more predictable cost structures made possible through the service provider's economies of scale and dedicated, specialized resources.

- **Sharpened focus on the core business.** IT staff in today's enterprises have multiple responsibilities across the networking, IT, and application domains, serving the needs of both individual end users and operational line-of-business units. However, many of the routine maintenance tasks associated with network management have little direct correlation to an organization's overall value proposition. By handing over partial or full network management responsibility to a service provider, companies can focus (or refocus) on core business priorities. This frees up the IT staff to concentrate on strategic longer-term projects such as improving critical applications/business processes, which can run even more efficiently on better-managed enterprise networks. At the end of the day, mission-supporting tasks such as rapid implementation and support of new business locations can be simplified and streamlined, thus accelerating companies' time to revenue.
- **Improved network performance.** Service providers have already made the investments required to manage their customers' networks. As such, they are better positioned to implement the proactive approach required to prevent network availability issues from becoming major application performance problems. Service providers' scale of operations justifies the use of sophisticated network/service management systems that provide the end-to-end visibility needed for rapid fault isolation, root cause analysis, and performance restoration across customer networks.
- **Positive impact on business operations.** External service providers can help companies establish standardized network management processes and best practices for all business locations, ensuring consistent network performance throughout the organization. In addition, enterprises can leverage service providers' ongoing investments in the latest technologies to better align networking/IT capabilities with new business requirements.

Outsourced Network Management: Not a One-Size-Fits-All Proposition

Enterprises considering outsourced network management have a range of options with regard to the desired level of service. Service providers offer various lease, purchase, and bundled procurement options for customer premises equipment. Network management solutions can be tailored to provide as much (or as little) support required at any given time or at any particular business location. Service providers typically segment network management offerings into the following categories:

- **Fault monitoring and notification.** This is the most basic network management function, providing up/down status reporting on network devices and alarms/alerts when there is a malfunction. The service type is best suited for enterprises with multiple business locations but centralized network/IT troubleshooting and restoration capabilities.

- **Fault and performance management.** The next tier of service incorporates ongoing change management (including device configuration, backups, and log reporting), as well as fault isolation, escalation, and resolution; 24/7 network monitoring; and online portal-based device/network availability performance reporting.
- **Comprehensive network management.** At this level, the service provider becomes the enterprise's single point of contact for management of the network and underlying maintenance contracts with the device vendors. This type of full-service solution offers the highest level of day-to-day network management offload to the service provider, enabling enterprises to reallocate IT resources accordingly.

Outsourced Network Management: An Evolving Relationship

Outsourced network management services can solve enterprises' immediate problems related to ensuring cost-effective, standardized network configuration, operation, and maintenance. However, working with a service provider yields benefits beyond improvement of current network operations or augmentation of internal IT staff skills and capacity. The aggregation of service providers' experience, tools, processes, and relationships with technology vendors constitutes a base of knowledge and expertise that enterprises can tap into for capacity planning, new network capabilities, and expansion road maps.

These services can also accelerate enterprises' use of network-enabled business processes by giving IT managers more "bandwidth" to pursue new ways of doing business on efficient, scalable platforms once network management responsibilities have been handed over to the experts. Thus, the ability to rely on the service provider as a trusted partner for insight and advice (as well as technical assistance) is one way that enterprises can further leverage outsourced network management to drive key businesses objectives.

Taking the Plunge: Considerations

Any company whose core competency and primary value proposition is not network management could benefit from third-party services in this domain. In addition, the current economic environment has heightened the urgency around reducing operational costs and capital outlays wherever possible.

The range of available delivery options available means that enterprises can retain some measure of control over certain network elements or functions if this is desired or required. Furthermore, providers' customer service portals and dashboards offer reporting and analytics on network performance, thus facilitating operational visibility that keeps the internal IT department in the loop. This visibility is particularly important as the network emerges as a key

element of enterprises' business process platforms. What service providers ultimately bring to the table is the ability to implement a comprehensive, process-oriented approach to network management that can help mitigate financial, operational, personnel-related business challenges.

Enterprises that decide to adopt the third-party network management approach should carefully weigh the perceived risks around loss of control with the broader cost and operational benefits. Due diligence on service providers is a must and should include evaluation of providers' service management systems, tools, and processes, as well as the reporting and analytics capabilities available with the service. Other considerations should include the service provider's vendor certifications and partner arrangements, service-level agreements and associated remedies for noncompliance, and levels of service that enable flexible division of responsibility between the service provider and the enterprise.

Conclusions and Recommendations

Network management services can help companies reduce the overall cost of network operations and acquire the expertise needed to manage network complexity. This type of arrangement helps provide the solid networking foundation needed for strategic application-focused IT initiatives. Network management services provide a holistic framework for accommodating growth and change with lower, more predictable costs than in-house approaches.

Today's enterprise networks must deliver a growing array of applications to increasingly extended enterprise ecosystems in a reliable, cost-efficient, and scalable manner. Relying on service providers' scale, operational processes, and focused network-oriented expertise liberates IT managers to develop applications and implement strategies that take full advantage of optimized, next-generation networks.

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