IP-based managed services help businesses reap benefits by consistently reducing IT costs while increasing employee productivity.

In business, the demand for IP (internet protocol)-based services is increasing dramatically. The reasons are simple yet compelling—the applications that businesses use the most to enhance productivity and trim costs are changing dramatically. Business owners are moving beyond the straightforward low-bandwidth applications that ran their businesses just a few years ago to higher-bandwidth, business-critical multimedia applications that are network-intensive and time-sensitive. These applications, including videoconferencing, mobility, IP telephony, and distance learning, have potential to improve employee productivity, promote market growth, and reduce costs.

The complexity of operating these services is increasing, and continued management requires increasing IT resources. To understand the implications of these services for the near and far term, how they integrate into existing network architectures, and their eventual selection and implementation requires time, expertise, and experience—typical assets that most small and medium-sized businesses (SMBs) do not readily have. Even those companies with IT staff cannot expect them to keep current with fast-changing technologies, to focus on strategic plans, and to perform the required daily network monitoring.

The answer for an increasing number of SMBs is to turn to their service providers as deployment partners for these new applications and services, and as management partners for certain network management tasks, reducing network operations costs, and freeing IT personnel for value-added network development.

The most significant change to business operations is the transition from traditional private branch exchange (PBX) switching to IP telephony. The primary benefits of migrating from a traditional PBX environment to IP telephony are savings in networking costs and complexity and a rapid return on investment (ROI), which are made possible when both voice and data operate over a single network infrastructure. A virtual private network (VPN) is a core enabler of IP telephony, along with all other converged services. These managed services often are deployed in tandem, simplifying network operations and reducing the overall cost structure. At the same time, a converged data and voice wide area network (WAN) requires an IP VPN to prioritize and secure traffic.

The IP telephony and IP VPN managed services foundation has led service providers to develop and offer an entire suite, or bundle, of additional managed services for businesses like yours (Figure 1).
These services complement each other when bundled together. For example, an IP VPN service makes managing an IP voice network simple and effective by establishing quality of service (QoS) capabilities, or priority levels, for data and voice traffic. Complete control over the entire IP network, including the local area network (LAN), routers, and firewall, reduces the complexity and costs of network management, ensuring a high level of quality.

**REAPING THE BENEFITS OF Managed SERVICES**

Many small businesses do not have a dedicated IT department and are willing to turn over the installation, maintenance, and upgrading of their networks to a qualified service provider. If you have IT personnel, choosing to contract outside of your organization for managed services allows you to reduce or reallocate these resources, relieving highly skilled, expensive staff of routine tasks such as monitoring routers, responding to help-desk inquiries, and resolving user problems. The result is increased IT staff productivity. The staff can turn its attention to strategic projects, improving service quality, enabling employee mobility, and integrating new technology—all proven productivity-enhancing services. Likewise, business owners can focus on cost control and new market opportunities for revenue growth. The result of purchasing managed IP services is an extraordinary cost savings—in some cases, 60 percent or more. (Source: Cisco Analysis, 2004)
Service providers can deliver comprehensive, higher-quality IT services because they have large, experienced IT staffs specializing in these technologies. Managed networks are larger and more robust than in-house networks, leading to greater reliability and resiliency, with service-level agreements (SLAs) promising up to 99.999-percent availability. Because service-provider-managed networks are monitored 24 hours a day, your business benefits from continuous review and fast responses to network events. To achieve that same level of service in house, an IT manager managing an IP solution, 40 hours per week, would have to increase the staff by up to a factor of five.

**BUSINESS SAVINGS FROM SELECTING MANAGED SERVICES**

Cisco Systems' experience has identified four primary areas where businesses like yours, by switching to managed services for value-added IP-based services, can generate cost savings—traditional service fees, hardware, IT operational costs, and transport. In this example (continued in Case Study 1), a medium-sized business reduces service fees by 31 percent, IT costs by 48 percent, hardware costs by 17 percent, and transport costs by 4 percent (Figure 2) after adopting the managed services listed in Table 1.

**Table 1. Types of Managed IP Services**

<table>
<thead>
<tr>
<th>Managed Service Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>Managed IP telephony</td>
<td>Managed IP telephony service provides, provisions, and manages telephony elements and the network.</td>
</tr>
<tr>
<td>Managed IP VPN service</td>
<td>Managed IP VPN service enables IP telephony networks, differentiating, and securing voice traffic from lower-priority data traffic through QoS and class of service (CoS) mechanisms.</td>
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<tr>
<td>Managed router service with dedicated Internet access</td>
<td>Managed router service with dedicated Internet access improves QoS by improving router integration with the service provider network that controls router settings.</td>
</tr>
<tr>
<td>Managed LAN service</td>
<td>Managed LAN service extends QoS into the LAN and helps to ensure application quality from the desktop to the router.</td>
</tr>
<tr>
<td>Managed firewall service</td>
<td>Managed firewall service secures remote locations and protects the integrity of the voice and data network.</td>
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**Figure 2**
Breakdown of Recurring Cost Reductions

Depending on the characteristics of the business, most of the cost reduction in service fees comes from removing an outmoded traditional PBX environment in favor of IP telephony. Traditional PBX customers pay providers standard management fees and maintenance contract fees plus hardware costs. When employee phones and other devices are moved, added, and changed, significant additional costs are incurred. While IP telephony fees replace traditional PBX costs, the IP telephony fees cover telephony hardware, maintenance, and other costs that were additional expenses in the PBX environment. These moves, adds, and changes occur at a fraction of the cost with an IP telephony network.
As a business, you save because you do not have to purchase or upgrade hardware. The greatest savings come from replacing the PBX, but with a managed service you can offload the ownership of switches, routers, and firewalls, as well as the software and platforms required to monitor the network.

The remaining savings potential comes from reduced or reallocated IT resources and the lower costs associated with digital transport networks. Because the responsibility for managing their networks has been out-tasked, IT staff spends less time monitoring the network, upgrading facilities and platforms, and restoring service to a troubled network. In addition, the cost for setting up and deploying these network platforms and policies is transferred to the service provider. At the same time, IT groups have better, more flexible opportunities to redesign their networks, relying on service provider network intelligence to provide greater efficiency to satisfy bandwidth demand. This reduced need for IT resources in network management can yield a combination of benefits. Your business is left with lower IT costs and greater profitability. And you can reallocate IT resources to strategic projects that address core business requirements, resulting in greater productivity for the IT department and employees across the organization.

It is important to remember that this breakdown of savings, though typical, may not reflect every business’s actual savings. Generally speaking, businesses operating in a distributed environment with multiple remote sites, or branch offices with fewer employees, will realize greater savings from managed services than from in-house management.

Case studies are an effective way to understand the potential cost savings and other benefits for our business customers. Two case studies, showing two different business scenarios, help to illustrate the business case for managed services.

**CASE STUDY 1—MEDIUM-SIZED BUSINESS; BROKERAGE FIRM**
In this scenario, a hypothetical medium-sized professional services firm with 244 employees has 196 employees in its headquarters office and 12 employees in each of five branch offices. These remote locations have no IT capabilities. We are assuming no equipment lease and zero-touch deployment (the use of preconfigured devices) by the service provider.

A managed services solution brings headquarters-style applications and the security of knowing that the applications and network run correctly. Without it, fixing problems could require travel, and members of the remote offices do not have time to wait—business stops when the network is down. The IT cost reductions associated with managing and monitoring these distributed platforms across six sites in Figure 2 shows how significant they are.

Using the five bundled services listed in Table 1, it is easy to see that while adopting managed services means that a business does increase its overall service provider spending, the advantages to the business, including greatly reduced overall IT costs and higher-performance applications at headquarters and the branch offices, offset the difference. By out-tasking network management, this business achieves several significant goals:

- Reduced management activities
- Reduced planning activities
- Improved data and telephony access-line efficiency
- Reduced overall hardware investment

Out-tasking the five services can reduce the hypothetical brokerage’s IT expenses by more than 46 percent (does not include the nonrecurring charges). (Figure 3)
This case shows the significant benefit of managed services in the branch office environment. These offices generally serve a smaller number of employees, and keeping IT resources in the office often is not economically feasible. These offices are typically geographically dispersed, so problems require remote diagnosis—and in the worst-case scenario, travel over several days to resolve the problem, leading to even greater costs and productivity losses. Generally speaking, the smaller the branch or headquarters office, the greater the relative savings.

**CASE STUDY 2—SMALL BUSINESS; GRAPHICS DESIGN FIRM**

Scenario 2 presents a small graphics design firm with 48 employees in its office.

Because there are no remote locations, there will be no requirement for a site-to-site VPN service. It is important to note that there may be remote access VPN requirements, which is not addressed in this case study. We are assuming no equipment lease and a zero-touch deployment (the use of preconfigured devices) by the service provider.

By switching to a bundled set of managed services (managed router, firewall, LAN, and IP telephony), this small business reduces its service fees by 23 percent, IT costs by 58 percent, hardware costs by 16 percent, and transport costs by 3 percent. (Figure 4)
Figure 4
Allocation of Recurring Cost Reductions for Graphics Design Firm

Figure 5 compares recurring costs for networks that are managed internally versus those managed by service providers.

Figure 5
A Comparison of Monthly Recurring Costs for Self-Managed Versus Out-Tasked Network Services

The overall improvement to the IT budget is higher as well. These distributed routers, switches, and firewalls cost more to manage because of the higher number of network elements per employee. Although the brokerage company reduced its costs by more than 46 percent, the graphics design company reduced its costs by 62 percent (does not include the nonrecurring charges).
IMPROVING IT ROI THROUGH PARTNERSHIP WITH CISCO POWERED NETWORK MEMBERS

A managed services approach combines an SMB Class solution from Cisco® with a service provider that delivers its services over a network built end-to-end with Cisco equipment and that meets high standards of operational excellence and customer service and support. These providers earn the Cisco Powered Network designation for these services and communicate the designation by displaying the Cisco Powered logo. The combination of Cisco and a service provider is very powerful, because if you do not have a dedicated IT staff, you can feel confident knowing that qualified service providers that are Cisco Powered Network Program members will manage your network needs professionally and reliably. If you do have an IT department, you can delegate nonstrategic network management areas to a trusted service provider partner, giving your team the time and resources to focus on core competencies or IT projects that directly affect resources and revenue.

If you would like to add integrated data, voice, and video services; security; or other network services, look for a service provider displaying the Cisco Powered logo. Unlike other service providers, Cisco Powered Network service providers are backed by the worldwide leader in networking for the Internet and offer unsurpassed compatibility with best-of-breed networks. Cisco Powered Network designated services provide peace of mind in business operations.

Businesses that understand the value they receive by adopting managed services should know that Cisco is uniquely positioned to provide industry-leading expertise and powerful resources in partnership with selected service providers. Cisco products and solutions enable service providers offering Cisco Powered Network designated services to partner with businesses to extend and enrich their infrastructure capabilities. Cisco offers three advantages to these businesses—industry-leading technology and solutions, expertise in creating products that support new services, and the ability to identify, influence, and brand service providers for excellence in managed services.

Cisco has developed a modeling tool that demonstrates the benefits of managed services for businesses like yours—the Cisco Managed Services Total Cost of Ownership (TCO) Tool for SMBs. This tool demonstrates how dramatic your savings can be, because choosing the managed services option can significantly lower the TCO of your network and improve your ROI. This tool will help you to create a customized, realistic, cost-savings estimate that can be achieved through the adoption of managed services. For a live demonstration based on your actual operating environment, call your Cisco account manager.

For more information and materials related to managed services for SMBs, go to: http://www.cisco.com/go/ms4smb.