

OUT-TASKING MANAGED BUSINESS VOICE SERVICES

EXECUTIVE SUMMARY

New converged infrastructures allowing voice, video, and data to be transported over a single network are changing the pace of business communications. The convergence of voice and data offers organizations unmatched cost savings, along with greater resilience and enhanced productivity. Businesses are finding new voice services more important as they meet the challenges of supporting increasingly remote workforces and additional locations. As a result, they are looking for an easier and cost-effective way to deploy and manage integrated voice and data communications systems. These challenges are addressed by managed business voice services, which include business phone services, site-to-site voice, unified communications, and Public Switched Telephone Network (PSTN) access. Business voice services can now be out-tasked—taking advantage of a service provider's converged infrastructure.

Out-tasking enables a business to focus on its core competencies, while taking advantage of the expertise and dedicated staff of a service provider. Interest in out-tasking managed business voice services is steadily increasing as organizations take note of the resulting cost benefits and flexibility. According to a study commissioned by Cisco Systems® in late 2002, 65 percent of businesses planning to implement IP Virtual Private Network (VPN) capabilities are interested in out-tasking, as are 55 percent of those deploying IP telephony. The study found that cost reductions can be significant—enterprises out-tasking managed converged IP networks are saving 25 percent or more in network and communications expenditures.

Managed business voice service providers bring their customers the latest technology, along with network management and monitoring capabilities that are available around the clock—24 hours a day, seven days a week, and 365 days a year. Service providers offering managed business voice services bring solutions tailored to meet an organization's particular requirements, from providing a complete communications network to complementing traditional private branch exchange (PBX) capabilities with new IP PBX technologies. Quality of service (QoS) can be implemented across all network components, such as LANs, routers, and firewalls, helping to further reduce overall expenditures.

Finding the right business voice solution for your organization begins with assessing and prioritizing your unique requirements, as well as becoming informed about your alternatives and some important decision points. This overview provides a starting place. More in-depth information is available at:

<http://www.cisco.com>

or by speaking with a Cisco® representative or Cisco Powered Network designated service provider.

MARKET OVERVIEW

A fast-paced, networked economy has broadened the range of business communications tools to include voice, data, and video. Organizations seeking to enhance productivity and reduce costs are looking at their communications options, including high-speed and converged networks. For many businesses, however, the cost of retooling their existing network infrastructures is prohibitive. For this reason, organizations are out-tasking their business voice requirements, turning to service providers who already own the infrastructure and the expertise to implement and offer managed business voice services over a converged network. Service providers are offering reliable, secure solutions, enabling organizations to lower costs and increase productivity.

Business alternatives offered by service providers range from out-tasking an entire IP network to operational management of IP equipment to provisioning of specific telecommunications services. Regardless of the configuration that meets your organization's needs, business voice services deliver consistent superior voice quality and network reliability.

TYPES OF SERVICES

Service providers offer end-to-end converged network services to organizations of all sizes worldwide. Service offerings typically include business phone service, site-to-site voice service, PSTN access, unified messaging, and enhanced IP services. In addition to networked communications, service providers can provision, monitor, maintain, and troubleshoot business voice infrastructures.

Business phone services—Business phone services are the subscriber and group calling services that are provided to businesses depending on their needs. The service includes basic dial-tone and direct-inward-dialing (DID) assignment. A company that requires a full-featured IP PBX would use a Cisco CallManager solution. A small business could solve its needs through a Cisco CallManager Express Services solution, providing a “keyswitch-like” solution.

Site-to-site voice—Site-to-site voice enables an enterprise to call from one of its sites to another site over the service provider's voice over IP (VoIP) infrastructure, further reducing long-distance costs. The service enables the enterprise to maintain its own private dial plan, including support for abbreviated extension dialing.

PSTN access—Access to traditional circuit-switching PSTN networks may be enabled locally from your own VoIP gateway or centrally over a managed service provider network. Central PSTN access provides economies of scale, which, in turn, reduce business costs.

Unified communications—Unified messaging capabilities allow workers to access and immediately respond to voice, fax, and e-mail messages from any phone or PC within the organization. When deployed on a converged network, unified messaging supports a universal “inbox” containing messages in all types of communications media. Unified communications capabilities, such as rules-based call routing and speech recognition, further enhance and streamline business workflow.

Remote network operations—Managed business voice services can include IP telephony, customer premises equipment (CPE), network management, coverage of remote sites and workers, configuration management, and any moves, adds, or changes.

Voice-over VPN—Business voice services can be enabled on VPNs, securely supporting teleworkers and mobile operations by providing access to critical information and communications.

Enhanced services—Once businesses implement or out-task an IP network, they can take advantage of certain advanced services. These may include custom IP phone Extensible Markup Language (XML) applications and in the future, IP customer contact services and IP conferencing. Organizations can take advantage of the XML programming language to easily download critical information and customized applications to a user's phone. Service providers can now deliver customized, revenue-generating, premium XML applications to their business voice services customer base.

BUSINESS REQUIREMENTS

As organizations seek cost savings in a low-margin economy, managed business voice services offer a viable avenue to reduce expenditures. Managed business voice service providers bring lower support costs for intersite connectivity, simpler capacity upgrades, and the efficiencies of converged network solutions. But cost savings are not the only advantage of managed business voice services—network performance can be improved across vital productivity parameters, including higher availability and bandwidth, lower latency, and high-quality remote access.

Focus—Out-tasking business voice services allows an organization to focus its workforce, infrastructure, and IT resources on core business capabilities and strategic initiatives, while using the expertise and advanced technologies that a reliable service provider can bring to the table.

Managing risk—Managed business voice services enable organizations to respond quickly and efficiently to unpredictable events, with provisions for disaster recovery and rapid workforce changes. Service providers bring dedicated resources and up-to-the-minute technologies to security monitoring.

Cost savings—Reduced calling charges, such as toll charges for intra-enterprise voice traffic, are the most obvious day-to-day gain for businesses, but savings in infrastructure, management, monitoring, and productivity efficiencies can also be significant. Monthly fees replace large upfront infrastructure or rewiring investments. In addition, teleworker support costs are lowered. Managed business voice services allow organizations to perform at lower costs, bringing a quick return on investment from networking technology investments. Lowering total cost of ownership (TCO) directly affects profitability.

Increased productivity—Flexible communications solutions that support several business models are having a positive impact on productivity and creating efficiencies. A few examples—mobile workers and telecommuters can securely and quickly access business communications networks; all types of media (voice, video, and data) are available over a single high-speed network; and interchange between business locations is smooth and efficient.

Flexibility—Because new business voice services consolidate all data types across a single network, organizations can choose the configurations that meet their requirements and can adjust service models quickly and easily. Solutions are available for all business models, from the single-office to distributed enterprises, to help transition over time.

Scalability—Business voice service consumption can be directly correlated to usage requirements. Migration can be scaled down to a “one phone at a time” implementation model, if desired.

Integration—Integrated data and voice solutions support secure, high-speed broadband access.

In-house control—Out-tasking managed business voice services does not have to mean relinquishing control over critical businesses processes. A managed services provider can work with you to help you maintain control of workflow in your organization. Businesses with in-house IT expertise can determine where control is desirable, and where service provider support can free up time and resources to be devoted to widespread infrastructure management and strategic business initiatives.

CASE STUDIES

Abbey National and Northgate Migrate to IP Telephony and Reduce Costs

For two British enterprises, Abbey National and Northgate, out-tasking IP telephony services has offered a way to provide exemplary customer service while realizing significant cost savings. Abbey National plc, one of the United Kingdom’s largest banks, uses managed service provider British Telecom’s IP WAN network to eliminate all calling charges between headquarters and branch offices. Abbey National uses BT’s VoIP Port service for their 32 headquarter offices, which were

previously time-division multiplexing (TDM) common-channel signaling PBX sites. Furthermore, their 750 branch offices use BT's Multimedia Voice Over Internet Protocol (MMVoIP) service, supported by BT-hosted Cisco Call Manager. Network upgrades are implemented overnight.

Northgate plc, a vehicle rental company, relied on British Telecom's Instant Office service to configure a communications network that could keep pace with its projected growth plans—more than doubling its business, primarily through remote offices. Northgate has realized significant cost savings by eliminating toll and maintenance charges—savings that it can continue to take advantage of as its business expands.

Based on the Cisco Business Voice Solution architecture, British Telecom's IP solution encompasses numerous business voice services and applications. The combination of reliable Cisco infrastructure technology and British Telecom's expertise has given businesses the tools they need to grow, enabling them to pursue planned migration from current Centrex, VPN, and PSTN networks. End users are enjoying a comprehensive range of services, from business phone to site-to-site voice to unified messaging. Businesses find that British Telecom's IP solution can handle their real-time traffic communications requirements, while eliminating the need for separate voice and data infrastructures—and they are seeing the benefit of a single point-of-contact for both telephony and data networking services.

JT International Maximizes Efficiency with a Worldwide IP VPN Network

JT International (JTI), the international subsidiary of Japan Tobacco, Inc., uses out-tasked services to support a global network of offices and sales activities. Equant, their managed services provider, has provided both Frame Relay and IP VPN to offer JTI worldwide interconnectivity. "We wanted to integrate voice, IP, and data on the same high-speed network for cost-saving efficiencies in terms of IT staff and for the easy rollout of new productivity-enhancing applications such as SAP," says Bill Freyer, vice president of information technology, JTI. "Equant's unmatched global presence assured us that they'd be able to manage the project anywhere in the world."

Equant's solution enables JTI to prioritize mission-critical traffic using up to five classes of service, while supporting complex applications efficiently. JTI is also looking to Equant to ensure end-to-end network security, site management, technology upgrades, service reliability, and support. "We are already seeing a return on investment and have found out how much more efficient our business can be," says Freyer.

Equant, an industry-leading member of the France Telecom Group, uses Cisco technology solutions to meet multinational business communications needs. Based on the Cisco Multiprotocol Label Switching (MPLS) business voice architecture, Equant is offering converged WAN and LAN services to its business customers. Equant customers appreciate the results—guaranteed traffic with real-time class of service and superior voice quality. Organizations are also taking advantage of the interoperability and easy configuration of Equant business voice solutions to extend their service offerings and reduce costs. Least-cost routing, global private dialing plans, the elimination of usage charges for global calls made over the IP VPN, and paying only for the bandwidth required to carry voice calls have made a difference in business efficiency and expenditure.

China Businesses Gain Flexibility of Converged Networks

Business customers in China were looking for converged networks and increased flexibility in communications service offerings. More than 50 enterprises and more than 7000 end users in Sichuan Province have turned to service provider China Unicom for fully managed local and long-distance services, PSTN connectivity, managed IP phones, voice mail, fax over IP, and videoconferencing.

China Unicom has successfully used IP as a differentiator in a challenging competitive market, delivering high-speed Internet access, voice, and data services to its customers. Based on the Cisco Business Voice architecture, including Cisco MPLS technology, the solution has enabled China Unicom to meet the needs of small, midsize, and enterprise customers. The

network supports data, voice, and video, along with QoS, while offering customers the convenience of a single bill. Customers are taking advantage of a full spectrum of converged communications services, with the most popular offering a bundled voice and data solution.

China Unicom Sichuan General Manager Tong Xioa-Yu has found the IP solution a good match for business customers. Xioa-Yu says, “Customers have been very enthusiastic about the service because of the single network and the menu of new and advanced options they have to choose from.”

Decision Tree

In weighing business communications alternatives, you will want to compare current costs to projected monthly fees for out-tasking all or part of your business voice services. Relevant factors may include the types of communications media (data, voice, video) you are currently relying on, the extent of your remote or mobile workforce, and the flexibility and cost savings that converged networks bring.

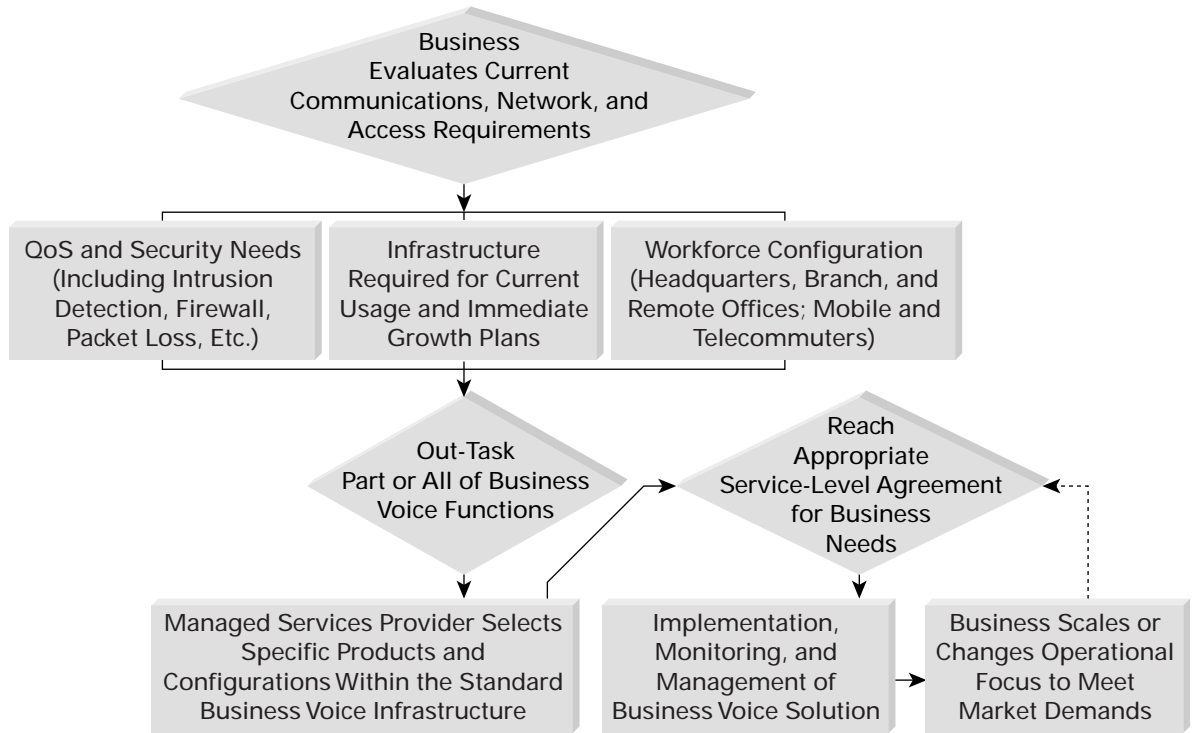
The material presented in Table 1 can provide a starting place for discussion on your unique business needs with a service provider who offers managed business voice services. As a foundation for assessing your requirements, the flowchart in Figure 1 shows the decision-making process involved in deploying managed business voice services.

Table 1 Assessing Your Business Requirements

Current communications infrastructure	<ul style="list-style-type: none"> • PSTN • PBX • IP PBX
Extent of communications conducted outside of the headquarters office	<ul style="list-style-type: none"> • Remote offices • Mobile workers/telecommuters • National or global communications • Significant use of more than one communications medium (data, voice, and video)
Amount of business-critical information being transferred over communications networks	<ul style="list-style-type: none"> • Light security and monitoring required • Heavy security and monitoring required
Primary communications expenditure	<ul style="list-style-type: none"> • Infrastructure • Maintenance • Monitoring and management • Security and QoS • Toll charges • Supporting off-site workers
Required service areas	<ul style="list-style-type: none"> • Communications • Deployment and maintenance • Remote management • Planning and migration

Figure 1

Managed Business Voice Service Deployment Flow-Chart



A number of important service factors, and their corresponding attributes, that IT managers weigh when assessing the capabilities of service providers offering managed business voice services, are described in Table 2.

Table 2 Assessing Your Managed Service Provider

		X
1. QoS	<ul style="list-style-type: none"> • Ability to handle voice, video, data, and multiple applications • Low latency and packet loss • Performance metrics • 24x7 support • Accurate billing and reporting 	
2. Service uptime	<ul style="list-style-type: none"> • Network redundancy • Fast reroute and convergence in the event of failure • Network recovery that is transparent to users and applications • Traffic engineering 	
3. Security	<ul style="list-style-type: none"> • Data encryption • Intrusion detection • Firewall protection • 24x7 support 	
4. Management	<ul style="list-style-type: none"> • Performance management • Fault management • On-time, flexible moves, adds, or changes 	

Out-tasking empowers companies to focus on their core business competencies and rely on strategic partners to expand the reach and capabilities of precious IT resources. As seen in Table 3, managed business voice services enable this strategy of standardizing business operations, data, and information technology, which can lead to greater efficiencies both internally and externally.

Table 3 Out-Tasking Strategies

	Business Strategy	Managed Business Voice Services
Enterprise business	Extend secure communications capabilities over all data types (voice, video, data) to remote offices or off-site workers	<ul style="list-style-type: none"> • Site-to-site voice • Centralized PSTN access • Remote network operations • Voice over VPN
	Take advantage of the benefits of converged communications without significant up-front investment	<ul style="list-style-type: none"> • Unified messaging
	Deploy advanced IP applications	<ul style="list-style-type: none"> • Enhanced IP services
Small to midsize Business	Simplify communications infrastructure, support, and expenditures	<ul style="list-style-type: none"> • Business voice services • Managed network monitoring and security

FINANCIAL ANALYSIS

Today’s converged network solutions offer organizations an attractive return on investment. Enterprises are experiencing a cost reduction of 25 percent or more, as a result of hardware savings, service fee reduction for legacy PBX management, and transport efficiency. Organizations are cutting costs by:

- Enabling intersite toll bypass
- Consolidating previously separate WAN links and wiring for voice and data
- Simplifying adds, moves, and changes
- Reducing environmental expenses
- Offering remote-site support and simple IP extensions from headquarters
- Supporting telecommuters effectively

Business voice services are helping organizations save money through:

Lowered TCO—Service providers can supply business voice services at a lower cost than in-house network deployment.

Lowered operating expenses—Both infrastructure costs and the staff power needed to keep communications networks running smoothly can be reduced.

Controlled costs—Service providers allow businesses to trade variable telecommunications costs for predictable monthly fees, which are scalable to changing business requirements such as expansion or downsizing.

Reduced risk—Organizations migrating from traditional infrastructures to IP telephony can reduce risk, while simplifying their migration paths and maintaining continuity in essential business processes.

CISCO POWERED NETWORK PROGRAM

Cisco is the leader in enterprise networking, and midsize and large businesses can enjoy the same reliability, scalability, and flexibility of network services by looking for the Cisco Powered Network designation when they choose to out-task these capabilities. An increasing number of business customers are able to access managed business voice services based on Cisco solutions that include scalable, flexible architectures supporting operations and mandatory regulatory voice features.

Businesses are looking to service providers with the Cisco Powered Network designation to supply reliable, industry-leading, out-tasked services that enable advanced applications based on Cisco end-to-end network equipment and technology, including:

- Compliance with stringent requirements and standards
- Confidence that out-tasking partners are using industry-standard technology
- Optimized deployment of security services in a timely manner
- Lower infrastructure investment

More than 375 of the most successful service providers around the world are members of the Cisco Powered Network program. Situated in more than 56 countries, these program members offer numerous services—over networks built with Cisco products and solutions—for small and large businesses alike.

Service providers with the Cisco Powered Network designation are committed to using end-to-end Cisco equipment in their networks, and meet high standards of operational excellence and customer service and support.

FOR MORE INFORMATION

To learn more about managed business voice services visit:

<http://www.cisco.com/go/managedservices>

You can find overviews on other managed services, including security, VPN, metro Ethernet, and metro optical services.



Corporate Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters

Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters

Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the Cisco Web site at www.cisco.com/go/offices

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

All contents are Copyright © 1992–2004 Cisco Systems, Inc. All rights reserved. Cisco, Cisco Systems, and the Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries.

All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0304R)
N2/KW/LW5545 02/04