



White Paper

IP Communications Overview for Small and Medium-Sized Businesses

Converged IP Communications solutions that integrate voice and data infrastructures on a single network help small and medium-sized businesses (SMBs) to enhance productivity, simplify management, and reduce costs.

Background

In today's rapidly changing business world, new challenges such as the expansion of the virtual workforce, growth of communications traffic, and the heightened need for business agility are turning organizations toward technology solutions that can help give them an edge over the competition.

At the forefront of these challenges are businesses' voice networks, which face changing communication requirements and expectations. Phone communication is now moving at Internet speed; writing down a message and returning a call within 24 hours is no longer acceptable to many customers. SMBs need voice solutions that can deliver immediate gratification to demanding customers.

Businesses can quickly save money by lowering ongoing expenses related to their voice and data networks.

One of the most effective ways is to migrate to an IP Communications solution that combines voice and data infrastructures on a single, converged IP-based network. An end-to-end IP network allows businesses to take advantage of advanced telecommunication applications such as unified messaging, interactive voice response (IVR), automatic call distributor (ACD), and Extensible Markup Language (XML) productivity solutions.

Converged IP Communications solutions support voice communications over IP-based networks with equal or greater quality and reliability than traditional circuit-switched telephone networks. IP Communications technologies are now widely adopted by businesses worldwide, many of which are realizing the benefits of their decisions shortly after implementation.

Challenge

Growing pains are nothing new for most SMBs. As they expand operations to support new customers or enter new marketplaces, they face a variety of strategic challenges. Many are already supporting separate networks to manage voice and data communications. These are becoming increasingly difficult to scale, manage, and maintain, resulting in higher costs. Private branch exchange (PBX) installation and upgrades are also costly, sensitive issues for organizations that are growing or moving to a new office space. PBX installations and toll charges can be cost-prohibitive for branch offices. And for companies with a PBX system that is reaching the end of its lease, the renewal or replacement process can be slow, frustrating, and expensive.

Many companies also need the ability to efficiently and affordably accept and route inbound calls without operator intervention, using an automated attendant application. Others maintain call centers distributed throughout many disparate geographic locations, and need solutions to let them integrate Web and back-end systems to improve responsiveness, retain customers, and increase market share.


Solution

An IP Communications solution can help growing companies overcome these business challenges in the short term, while laying the groundwork to take advantage of new opportunities in the future. A well-planned IP Communications solution should consist of standards-based, fully integrated components that enable companies to protect their network investments, while adding new features and applications. A

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standards-based solution increases reliability, integrates smoothly with the existing network, and can easily be modified or upgraded as business needs change.

Cisco Systems® has developed the industry's first smart, simple, and secure communications solution designed for SMBs. Service providers who are members of the Cisco® Powered Network program are thoroughly trained to manage its elements and help ensure a smooth-running operation.

The five major components of a comprehensive, end-to-end Cisco IP Communications solution are:

- The converged IP network infrastructure, which includes Cisco Catalyst® switches with inline power, Cisco integrated services routers, and other network components such as gateways, services, and software. Integrated platforms can be added to an existing data network immediately, then easily enhanced as needed to support advanced services such as IVR, unified messaging, ACD, and XML productivity applications.
- Endpoint devices, such as Cisco IP phones that connect to a converged IP network, allow users to place phone calls as quickly and easily as they would using an analog phone. IP phones can be managed just like any other network device, making it easy to perform telephone moves, adds, and changes with minimal staff, and saving money on network administration. They deliver high-quality voice communication and feature LCD screens to support advanced IP Communications applications. IP endpoint devices also enhance employee mobility, enabling users to receive and make calls from anywhere.
- Telephony applications such as Cisco Unity™ and Cisco Unity Express let users access and manage voice mail, e-mail, and fax messages from a single mailbox. These unified messaging applications help business professionals manage how and where they want to be reached, enhancing communications, productivity, and responsiveness.
- Integrated call processing and data routing extend telephony features and functions to the converged IP network, while providing support for applications such as unified messaging, multimedia conferencing, collaborative contact centers, and interactive multimedia response systems. Cisco CallManager and Cisco CallManager Express platforms provide solution flexibility and extensibility to the advanced applications and network capabilities benefiting your business. Office locations with fewer than 240 users can benefit from Cisco CallManager Express with Cisco Unity Express, an all-in-one-box solution based on an integrated services router. Larger businesses can benefit from Cisco CallManager IP PBX, which scales to support up to thousands of phones at one or many locations.
- Management software provides support for IP applications, from basic connectivity, security, and network management to more advanced services. Service providers use these and other tools to remotely analyze and monitor your traffic 24 hours a day.

Benefits

An end-to-end, standards-based Cisco IP Communications solution can unlock cost savings, enhance customer relationships, and provide a converged network foundation for SMBs to deploy innovative IP applications with ease.

Companies can quickly reduce their total cost of network ownership by migrating their voice and data infrastructures to a converged IP network. A unified infrastructure minimizes ongoing costs by enabling self-service voice moves, adds, and changes. And companies can avoid costly toll charges and monthly fees for previously dedicated leased voice lines that connected branch offices and teleworkers.

Cisco IP Communications can also deliver significant strategic benefits by improving a business' overall communication with services such as IP call management and unified messaging. A recent study by research firm The Radicati Group estimates that unified messaging generates 25 to 40 minutes per day of additional productivity per employee. IP Communications also increase employee productivity through mobility, so workers can stay connected regardless of their locations.

Combining separate data and voice networks into one IP infrastructure enables companies to simplify network operations as they build additional value into their networks. With an IP Communications solution, companies can merge previously disparate support and administrative staffs for voice and data networks and focus their resources on strategic business goals.

IP Communications also help companies to support innovative XML applications, helping ensure content integration with backend database systems for sales and marketing, new service creation, finance, legal, and technology operations.

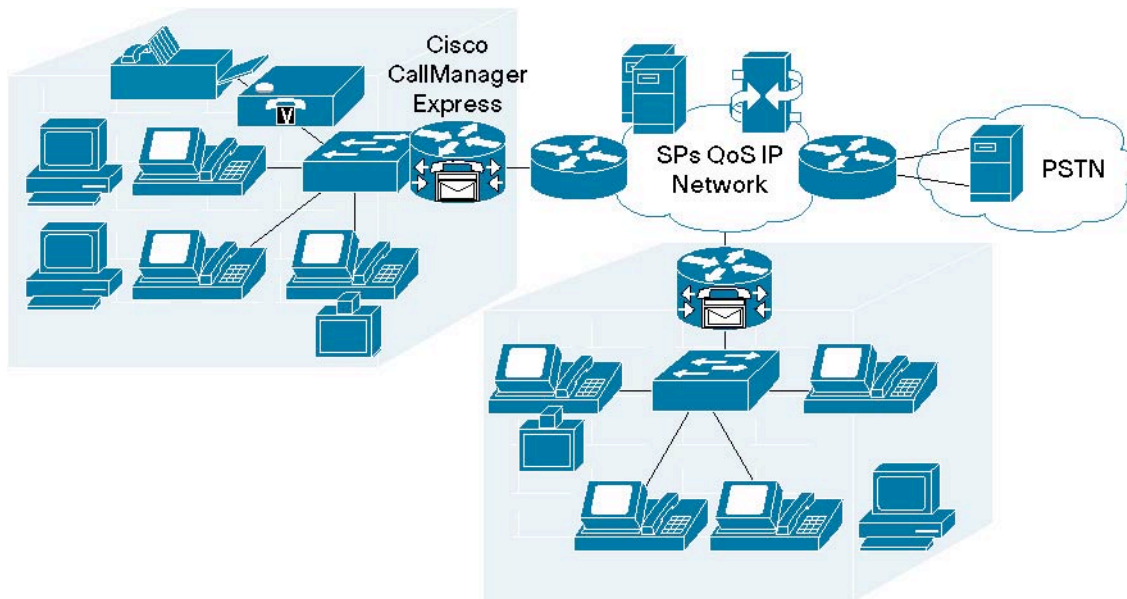
The Fast and Simple Way to Deploy IP Communications


Many businesses, while recognizing the substantial cost and convenience benefits of deploying IP Communications, are more cautious about embracing these new technologies when they consider their constrained IT resources and the complexity and risks of integration. The migration from older equipment can overwhelm capital and human resources. In the face of these challenges, many SMBs turn to service providers to supply the expertise, infrastructure, and resources to deploy, monitor, and maintain their IP Communications service. This way, existing IT staff can focus on what they do best while leaving the rest to the service provider's technology experts.

Managed services based on Cisco IP Communications platforms can be designed to support a simple distributed architecture that can be easily replicated for multiple small-branch locations across a company's network (Figure 1).

Figure 1

Cisco CallManager Express Deployment at Small Branch Office





The advantages of allowing a service provider to manage your transition to IP Communications and your ongoing service needs include:

- Deploying the latest technology that can scale as you grow
- Minimizing or eliminating the number of devices that need to be maintained or upgraded
- Delivering 24-hour network management and monitoring
- Creating a range of tailored solutions, from providing a complete communications network to complementing existing PBX systems with new IP PBX technologies
- Providing quality of service (QoS) to prioritize time-sensitive traffic across all network elements, such as LANs, routers, and firewalls
- Improving network performance and reduces overall expenditures

Service providers with the Cisco Powered Network designation deliver services over a network built end-to-end with industry-leading Cisco equipment and meet Cisco standards for network support. These service providers have access to intensive, continuous training to support your network with the most competent people and systems available.

For More Information

For further information on managed services and IP Communications solutions, refer to these additional resources:

Managed services for SMBs: <http://www.cisco.com/go/ms4smb>

Communications Solutions for SMBs: <http://www.cisco.com/go/businesscommunications>

**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.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

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