

## IP Communications for the Small or Autonomous Branch Office

**Deploying data and voice capabilities in a single, integrated routing platform to increase productivity, decrease costs, and lower total cost of ownership.**

Many enterprises have successfully lowered their total cost of ownership and increased employee productivity by consolidating data networks and implementing networked applications. Today, business conditions are driving technology trends that extend “enterprise-like” functions to small and medium-sized offices with a continued emphasis on lowering costs, increasing return on investment, and boosting productivity.

The widely deployed, proven portfolio of Cisco® access routers provides data routing functions with features such as robust quality of service, network security, encryption, firewall, and intrusion detection to address the business needs of

small and medium-sized offices. Cisco also has continued to introduce a wide range of network modules and interface cards that have enhanced the business value of the router. These services include content delivery, voice gateway, enhanced VPN services, and a variety of other capabilities.

### **Complete Full-Service, All-in-One Solution**

Now Cisco access routers provide a single integrated platform for the deployment of converged data and voice. With Cisco CallManager Express and Cisco Unity™ Express, the newest additions to the Cisco IP Communications product portfolio, you can extend the benefits of IP Communications to small- or midsized-office environments on a single integrated platform, quickly and easily.

This solution serves offices of 100 users or fewer and enables a robust set of commonly used business telephony features, voice mail, and automated-attendant capabilities.

By deploying a single platform to address all your data and voice business needs, you can streamline your operations and simplify management, maintenance, and training, resulting in lower total cost of ownership.

**Cisco CallManager Express—Integrated Call Processing, Cisco Unity Express—Integrated Voice Mail and Automated Attendant, Cisco Access Routers—Single Integrated Platform for Deployment of Converged Data and Voice, Cisco IP Communication Endpoints—IP Phones**





**Integrated voice and data for the small and medium-sized office, offering locally delivered call processing, voice mail, and basic automated attendant.**

### **Cost-Effective Administration**

Most small or autonomous branch offices cannot justify the expense of high-level, onsite technical expertise. Because of this, Cisco offers customers the option of using the industry-standard Cisco IOS® Software command-line interface (CLI) or a Web-based graphical user interface (GUI) for configuration and administration.

The Cisco CallManager Express and Cisco Unity Express solution CLI can be used to easily provision and administer your entire data and voice network on a Cisco access router. The CLI allows an organization's technical staff to configure devices in bulk before or after they are delivered to a small office for initialization from anywhere on the network. This unique feature, not typically provided with entry-level systems, enables you to deploy many sites quickly and efficiently.

Non-technical employees such as office managers or receptionists can add users or make changes to both Cisco CallManager Express and Cisco Unity Express by using the simple, integrated Web-based GUI. Whether managing through a GUI interface or the CLI, the ability to remotely maintain and troubleshoot greatly eases management and administration for small offices, especially for those with little technical expertise.

### **Ease of Use**

For employees in a small or medium-sized office, Cisco IP phone features are very intuitive, thus requiring little training. Using the display of a Cisco IP phone, the Extensible Markup Language (XML) capabilities enable you to use a variety of productivity-enhancing applications such as accessing information from the Yellow Pages, deploying a time card function, checking airline schedules, and noting student attendance, to name a few. And you can configure the system to provide local language and tones support as well.

### **One-Hundred-Percent Investment Protection**

As a small or medium-sized office grows or seeks additional features, it may be advantageous to migrate from a distributed Cisco CallManager Express environment to a centralized call-processing model with Cisco CallManager. Your existing investment is 100-percent protected. Your Cisco IP phones, Cisco Catalyst® switches, analog phones, and fax machines are all carried forward. And with just a simple configuration change, your Cisco access router becomes a redundant call-processing system at the branch through the Survivable Remote Site Telephony (SRST) feature at no additional cost.

### **Robust Features and Functions**

#### **Computer Telephony Integration**

Cisco CallManager Express supports Computer Telephony Integration (CTI) with your customer-relationship-management (CRM) applications. For example, if your staff uses an application to manage their contact lists and contact information, when a contact calls, the system can automatically access that contact's record based on their caller ID. This streamlines work processes and increases efficiency. Gaining immediate access to personal and order information without having to manually enter individual account information allows employees to both personalize and speed their interactions with important contacts.



### **Call Coverage Capabilities**

Call forwarding, call pick up, dual line appearances and hunt groups ensure that when a call comes into any office, regardless of office size, it will be answered efficiently to ensure that customers remain satisfied with the service they receive.

### **Integrated Voice Mail**

When the next-available person cannot answer a call, extending individual voice mailboxes to all employees provides an opportunity to improve customer service and employee productivity, while increasing the professionalism in a small or medium-sized office.

Cisco Unity Express, an optional network module for Cisco CallManager Express, offers easy, one-touch access to messages and commonly used voice-mail features that enable users to reply, forward, or save messages. To improve message management, users can create alternate greetings, access envelope information, and mark or play messages based on privacy or urgency. It includes 100 hours of voice-mail storage—ample capacity for any small or medium business need.

### **General Delivery Voice Mailboxes**

Cisco Unity Express also provides general delivery voice mailboxes, voicemail storage for employees with similar skill sets or job functions. For example, when customers call a retail store, real estate office, or bank with a general question, they may not require the attention of a particular employee. A general delivery mailbox allows the first-available team member to retrieve a message and promptly respond to a customer's needs.

### **Built-In Automated Attendant**

A basic, built-in automated attendant for Cisco Unity Express enables callers to quickly reach the right person without the assistance of an operator 24 hours a day, seven days a week. A dial-by-name and dial-by-extension directory simplifies self-service, and if you need further assistance, you can easily return to an operator when needed.

### **Broadest Range of IP Endpoints**





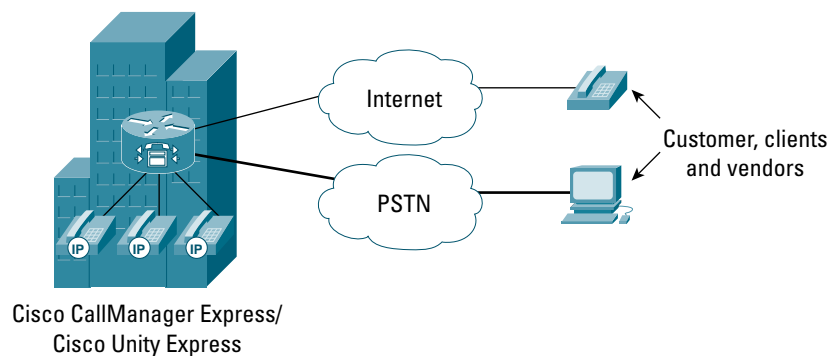
To round out the Cisco IP Communications solution, Cisco offers a broad portfolio of IP phones at various price points to meet any application or requirement. When connected to a converged IP network, Cisco IP phones enable users to place phone calls as quickly and easily as they would using their current phone.

The new generation of intelligent Cisco IP phones is entirely display-based and offers straightforward user features and customization capabilities driven by changing business needs. Display-based phones help users with prompts for how to use the phone and access a directory, and XML-display capacities allow for the display of non-telephony information. Cisco IP phones extend beyond simple dial-tone replacement to advanced feature sets that support a wider business IP Communications environment including data, voice and video.

### The Fastest and Simplest Way to Enable IP Communications in Your Small or Medium-sized Offices

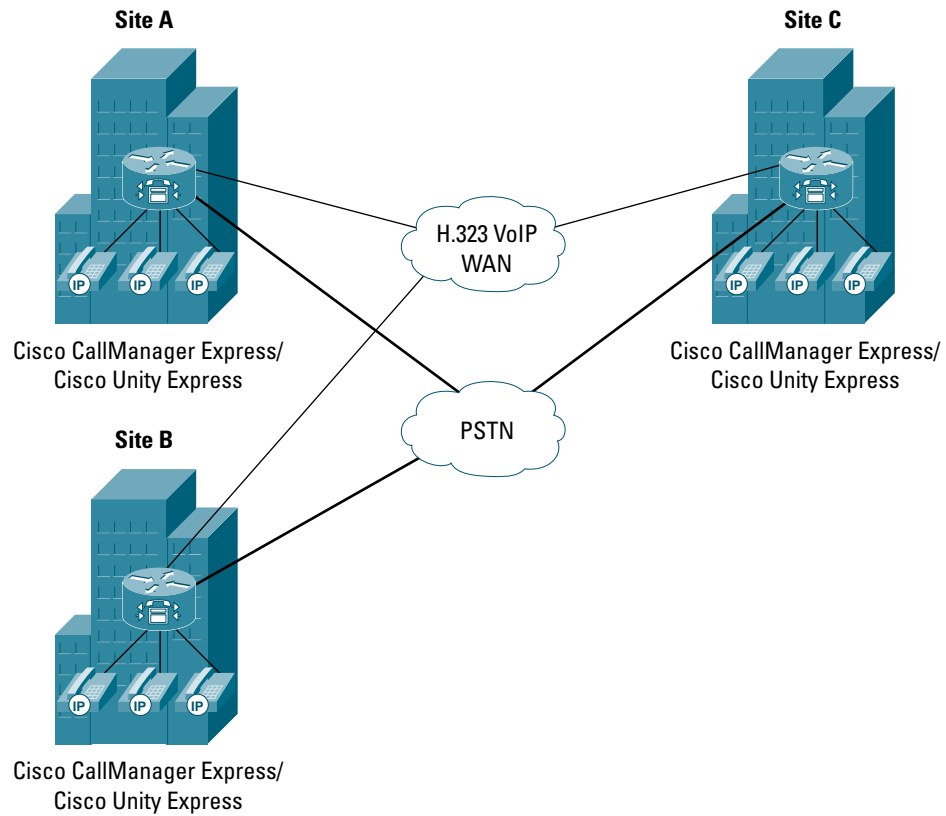
Together, Cisco CallManager Express and Cisco Unity Express provide a simple, consistent, distributed architecture that can be easily replicated for multiple small-branch locations across an enterprise network.

**Figure 1**  
Standalone Office





**Figure 2**  
VoIP and Data-Connected Offices



**Table 1** Features of Cisco CallManager Express with Cisco Unity Express

	Cisco IP Phone 7905G	Cisco IP Phone 7912G	Cisco IP Phone 7902G	Cisco IP Phone 7920	Cisco IP Phone 7940/IP Phone 7960
Alternate greeting capability	Yes	Yes	Yes	Yes	Yes
Access voice-mail messages	Yes	Yes	Yes	Yes	Yes
Automatic assignment of free Directory Numbers (DNs) to new IP phones	Yes	Yes	–	–	Yes
Automated attendant	Yes	Yes	Yes	Yes	Yes
Caller ID	Yes	Yes	–	Yes	Yes
Call forwarding	Yes	Yes	Yes	Yes	Yes
Call history (including missed calls)	Yes	Yes	–	Yes	Yes
Call pickup on hold	Yes	Yes	–	Yes	Yes



**Table 1** Features of Cisco CallManager Express with Cisco Unity Express (Continued)

	Cisco IP Phone 7905G	Cisco IP Phone 7912G	Cisco IP Phone 7902G	Cisco IP Phone 7920	Cisco IP Phone 7940/IP Phone 7960
Call pickup ringing variations	Yes	Yes	–	–	Yes
Call timer	Yes	Yes	–	–	Yes
Call transfer	Yes	Yes	Yes	Yes	Yes
Call waiting	Yes	Yes	Yes	Yes	Yes
Configurable system message	Yes	Yes	–	Yes	Yes
Distinctive ringing	Yes	Yes	Yes	–	Yes
DN overlays for parallel hunting	Yes	Yes	Yes	Yes	Yes
Do not disturb	Yes	Yes	–	Yes	Yes
European date formats	Yes	Yes	–	–	Yes
Extension login for Toll Bar Override	–	–	–	–	Yes
Flexible auto-line selection	–	–	–	–	Yes
General delivery voice mailboxes	Yes	Yes	Yes	Yes	Yes
Hold and resume	Yes	Yes	Yes	Yes	Yes
Huntstop support	Yes	Yes	Yes	Yes	Yes
Integration of H.450.x call transfer and forwarding	Yes	Yes	Yes	Yes	Yes
Intercom	Yes	Yes	–	–	Yes
IP Phone URL Provisioning	–	–	–	–	Yes
GUI support and customization	Yes	Yes	Yes	Yes	Yes
Languages/Internationalization	–	–	–	–	Yes
Local and VoIP/PBX/PSTN/ISDN calls	Yes	Yes	Yes	Yes	Yes
Local call back busy subscriber	Yes	Yes	–	Yes	Yes
Local Directory Search	–	–	–	–	Yes
Local XML based speed dial	–	–	–	–	–
Music/tone on hold	Yes	Yes	Yes	Yes	Yes
Night service bell	Yes	Yes	–	–	Yes
On hold timeout-alert	Yes	Yes	Yes	Yes	Yes
On hook dialing	Yes	Yes	–	Yes	Yes
Paging	Yes	Yes	–	–	Yes
Per call caller ID blocking	Yes	Yes	Yes	Yes	Yes



**Table 1** Features of Cisco CallManager Express with Cisco Unity Express (Continued)

	Cisco IP Phone 7905G	Cisco IP Phone 7912G	Cisco IP Phone 7902G	Cisco IP Phone 7920	Cisco IP Phone 7940/IP Phone 7960
Secondary dial tone	Yes	Yes	Yes	–	Yes
Silent and feature ring options	Yes	Yes	Yes	Yes	Yes
Shared line appearances	Yes	Yes	Yes	Yes	Yes
Speed dial	Yes	Yes	Yes	Local	Yes
Speed dial programming from IP phone	Yes	Yes	–	–	Yes
Syslog message support for phone registration/deregistration	Yes	Yes	Yes	Yes	Yes
TAPI support	Yes	Yes	Yes	–	Yes
Text label support on IP phones	Yes	Yes	–	Yes	Yes
Three party conference	Yes	Yes	Yes	Yes	Yes
Time and date display	Yes	Yes	–	Yes	Yes
Time of day, day of week, date-based call blocking	Yes	Yes	Yes	Yes	Yes
Top-line description	Yes	Yes	–	–	Yes
Two-line per button support	Yes	Yes	Yes	Yes	Yes
Visual message waiting indication	Yes	Yes	Yes	Yes	Yes
Voice-mail integration	Yes	Yes	Yes	Yes	Yes
Voice-mail standard features: message reply, forward, save, and marking	Yes	Yes	Yes	Yes	Yes
Voice-mail storage (100 hours)	Yes	Yes	Yes	Yes	Yes

For organizations interested in quickly deploying integrated data and voice communications at remote locations, Cisco CallManager Express with Cisco Unity Express allows customers to easily enable feature-rich branch- or small-office call processing and voice-mail functions to their existing or new Cisco access router platform.

Unlike many small-office standalone call-processing solutions—which lack the ability to fully integrate data and voice connectivity on a single platform—Cisco Systems® helps customers lower their total cost of ownership by providing integrated voice mail and embedded call functions directly into Cisco IOS Software, providing a truly integrated solution.



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