Cisco IP Communications: Bringing Innovation to Accessibility

Today's diverse workforce creates extraordinary value for business, government, and education. At the same time, it introduces new challenges. How can organizations empower all people—regardless of hearing, vision, and mobility level—to contribute equally? And how can those same organizations provide equal service to their customers with disabilities? The extent to which an organization provides equal access shapes its productivity, responsiveness, and ability to attract and retain the most qualified employees, regardless of disability. It also increases the organization's service levels to a distinct segment of its customer base, positively affecting customer satisfaction and revenue.

Not only is equal access a sound business strategy, it's the law. For example, in the United States, Section 508 of the Rehabilitation Act and Section 255 of the Telecommunications Act protect the rights of people with disabilities by encouraging organizations and manufacturers to provide telecommunication and IT resources that everyone can use. Other countries have similar regulations.

Cisco Systems® is committed to providing accessible and usable solutions to improve the way all people work, live, play, and learn. The Cisco® IP Communications platform conforms to Section 508 and Section 255 and, in the process, help enable all our customers to fully realize the value of their diverse workforce. Everyone benefits: employees with disabilities, their coworkers, customers, and shareholders. As the global leader in network communications, Cisco devotes extensive resources to helping ensure the accessibility of its IP communications solutions, including a dedicated accessibility team staffed with experts. And because Cisco is its own most demanding customer, its employees with disabilities use Cisco products in their daily work, providing immediate, relevant feedback to designers about accessibility and usability.

Cisco's commitment to accessibility also extends beyond the company walls. Cisco actively participates in standards committees and industry boards, and collaborates closely with consultants, universities, interest groups, and experts who specialize in accessibility. To better understand the needs and concerns of people with disabilities and validate its designs, Cisco engages people with disabilities for focus groups and usability studies. Many of their suggestions have become standard features in Cisco IP Communications products.

Cisco takes advantage of open IP standards to lift accessibility to a new level, creating a more collaborative and productive workforce. Unlike traditional phone systems, Cisco IP Communications is based on open interfaces and industry standards. This means that Cisco customers also enjoy access to complementary solutions from industry-leading, third-party developers, including Berbee, IP blue, and NXi Communications. These and other developers take advantage of the open interfaces within the Cisco IP Communications platform to extend the power of IP to every person in the organization.

"In testing usability and Section 255 and Section 508 conformance, we found Cisco's solutions to be highly accessible. In many places their accessibility exceeds regulatory requirements and meets the needs of users with disabilities to an unprecedented level. The attention to details, such as TTY message handling, speaks well of the company's commitment and allocation of resources."

— Jim Tobias, President, Inclusive Technologies

Accessibility Solutions from Cisco Systems

Cisco IP Phones

Cisco IP Phone solutions provide people who are disabled with easy access to the rich feature set, beyond the telephone basics, long enjoyed by others in the organization. For instance, Cisco IP phones provide both audio and visual alerts of phone states, including dial tone, ringing, mute status, and more. Visual alerts are displayed on a large liquid crystal display (LCD) screen integrated into the phone. For people with low-vision, an optional color LCD screen provides high contrast and backlighting. Hearing-aid compatibility is standard on all Cisco IP phones.

Cisco IP Communications solutions also support TTY. Like voice over IP (VoIP), TTY over IP requires quality of service (QoS) for reliable delivery—a feature that Cisco IP Communications has offered from the outset. To make or place a TTY call, employees can either acoustically couple a TTY to the Cisco IP Phone or directly connect it to the IP telephony network through an analog telephone adapter (ATA). With equal access to the mobility features of Cisco IP Communications, TTY users can make and receive calls from different locations in the organization while retaining the same phone number by bringing only their TTY and an ATA. And Cisco IP Communications addresses a critical safety concern for people who are deaf: TTYs work with Cisco Emergency Responder, helping enable TTY users to access E911 during emergencies.

Cisco Unity: Accessible Voicemail and Unified Messaging

In the past, retrieving TTY voice-mail messages could be daunting, and even discourage the use of voice mail. A sluggish 45.45-baud retrieval rate eroded productivity making users wait minutes to pull a short TTY message. Hearing users in mixed environments didn't know whether a message was TTY or voice until the TTY tones sounded—the cue to quickly insert the handset into a TTY device. Cisco Unity™ software surmounts these problems by giving users the option to retrieve TTY messages as e-mail messages. The TTY message is converted at the desktop, appearing as text in a fraction of a second. What's more, TTY message recipients can respond quickly by typing on their PCs and Cisco Unity automatically encodes the text into TTY tones for transmission. To gain equal access to the Cisco Unity automated attendant for directory services, TTY users simply respond to prompts played as TTY Baudot tones.

The Cisco Unity voice messaging system accommodates other disabilities as well, with features such adjustable playback speed for messages, and adjustable response times for people who need more time to respond to system prompts.

For message notification, Cisco Unity voice messaging provides an effective alternative to stutter tones or message waiting indicator (MWI) lamps. Employees can use a phone or Web interface to instruct the system to call one or more phones or pagers when a new message is left. When the employee answers, the Cisco Unity system prompts them via voice or TTY to log in and retrieve messages.

"With our Cisco IP Communications solution, for the first time our deaf staff can contact outside resources on their own—without having to rely on someone else to dial the phone or interpret. And they can receive calls without assistance, as well."

— Lorana Myers, WSD supply officer, Washington School for the Deaf

Accessibility Solutions from Cisco Partners

IP blue: Providing Audio-Assisted Phone for the Visually Impaired

An accessible softphone specially built for the Cisco IP Communication system, the VTGO-PC Softphone from IP blue, can be deployed alone or in conjunction with the Cisco IP Phone 7960G. Users choose on a call-by-call basis which phone to use. With built-in text-to-speech translation, the VTGO-PC softphone provides audio assistance for all features of the Cisco IP Phone, including caller ID, call hold, line status, advanced services such as call directory and missed calls, and even prompts and messages from third-party applications. Employees accustomed to a JAWS screen reader can either continue to use it with the softphone or switch to the integrated IP blue speech engine. Mobility capabilities help enable employees to retain the same phone number as they work from various locations. The VTGO-PC Softphone operates much like a typical phone: users don't need to use special keys for audio assistance, or to memorize or mark special-purpose keys.

NXi: Advanced Text Communications for the Hearing Impaired

NXi Telephony Services (NTS) complements the Cisco IP Communications solution to provide advanced text communications over IP networks, transforming the PC into a TTY device for sending and receiving messages. Using the NTS client software on a PC, TTY users can take advantage of a visual interface to dial extensions and other phone numbers, use the computer keyboard to type TTY messages, and read them on the computer monitor. NTS also provides automated attendant, interactive voice response (IVR), and messaging options such as e-mail, fax, alpha paging, and instant messaging services.

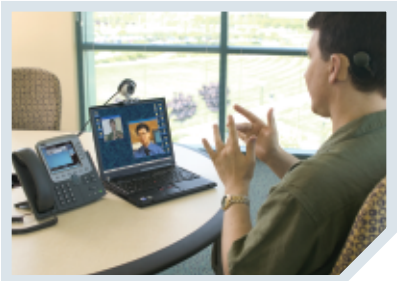
Berbee: Visual and Audio Emergency Notification through the Phone

Overhead paging often does not reach deaf employees, which compromises safety. Berbee InformaCast helps ensure the safety of all employees by simultaneously sending an audible broadcast and text message to Cisco IP phones. In this way, the organization helps ensure that all employees have equal access to vital information about emergencies or network outages, for example. Administrators can select a prerecorded message or record a live broadcast, and send it to all phones or selected groups.

Cisco Personal Assistant: Voice Commands

People who have difficulty pressing keys can take full advantage of the productivity-enhancing features of Cisco IP Communications by using voice commands with Cisco Personal Assistant. Simple statements such as "call Marina Sanchez" or "retrieve messages" provide access to the corporate directory, personal contacts, voice messaging, and conference features.

Cisco VT Advantage



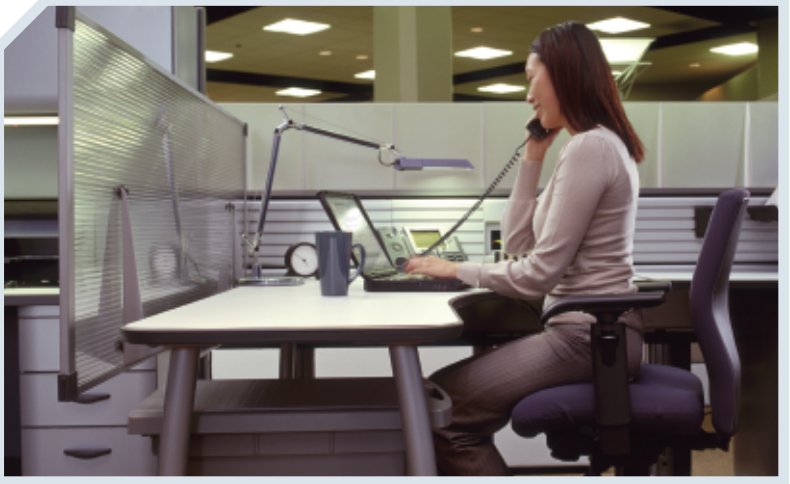
As an alternative to TTY, deaf and hearing employees can communicate easily among coworkers via American Sign Language using Cisco VT Advantage, which adds video telephony capabilities to Cisco IP phones. The solution includes software and the Cisco VT camera, both installed on a PC colocated with the employee's Cisco IP Phone. Cisco VT Advantage makes video telephony as easy as making a phone call. Employees who make and receive video calls using Cisco VT Advantage enjoy equal access to the Cisco IP Phone features available for audio calls, such as call forward, transfer, conference, and hold.

A Strong Commitment to Accessibility

Every employee deserves equal access to their workplace's communications system, and every organization deserves the collaboration and productivity gains that result. Cisco Systems leads the industry in its commitment to accessible systems, demonstrating that commitment through its programs, solutions, and relationships with third-party developers. Accessible Cisco IP Communications solutions based on open standards lift the limits to equal access, paving the way to a more collaborative and productive workforce.

For more information about Cisco IP Communications, visit:
www.cisco.com/go/ipc

For more information about Section 508 conformance, visit:
http://www.cisco.com/wwl/regaffairs/accessibility_standards/



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