Seamless Mobile Collaboration for the Enterprise

Overview

Organizations worldwide have reworked their business processes to take advantage of powerful new technologies such as the Internet, IP communications, and mobility. But with an explosion of alternatives available to reach fellow employees—mobile phone, e-mail, instant messaging, and voicemail—too often employees still cannot reach one another efficiently. The result is delays in business processes as project participants must wait for returned phone calls or e-mail before proceeding.

Businesses today need to effectively support their mobile workforces which have varying communication needs and use a wide range of devices on different operating systems and networks. Cisco® Unified Communications, which includes IP telephony, unified messaging, customer contact, Web and video conferencing, and presence technology, is dramatically improving businesses' ability to communicate and collaborate more seamlessly and efficiently. Cisco also offers solutions that extend and enhance the mobility component of Cisco Unified Communications. This combination allows workers who are mobile—whether on a retail floor, at a customer site, at an airport, or at a Wi-Fi hotspot in a local coffee shop—to also enjoy the business efficiencies and agility possible with the seamless mobile collaboration enabled by Cisco Unified Communications.

Effective Communications is Critical to Business Success

A survey of the internal communications challenges at 67 enterprises in North America and Europe[1], found that project delays occur with high frequency because of the inability to reach decision makers quickly. In 27 percent of the companies surveyed, regular delays occurred weekly or daily, while an additional 51 percent reported project delays arising a few times per quarter. Most notable, however, was the finding that work on critical projects came to a halt in 25 percent of companies because of the inability to reach critical decision makers in real time. For another 63 percent of companies, work progress was slowed. The survey found that only 12 percent of respondents could generally work around the problem.

The Forrester Research report confirms what many experience daily owing to the dispersed and mobile nature of the workforce: the frustration of delayed communications of playing phone tag, or of waiting for responses to e-mail. This inability to reach co-workers or partners in real time transcends personal frustrations—it results in real delays in completing projects, or providing information to clients, or providing approvals in the normal course of business all of which can have negative business consequences. All of this can negatively affect an organization or company's ability to be responsive to customer needs and can result in reduced revenue both today and in the future.

[1] Forrester Research Report, March 2005

The Role of Mobility in Communications

The growing use of mobile devices has not reduced this problem and in fact may be exacerbating it. As more people own multiple devices, ranging from laptop computers to mobile phones to mobile e-mail devices, they spend more time managing their communications across different phone numbers, voice mailboxes, and e-mail accounts, limiting their ability to accomplish work efficiently.

A few years ago, the demand for mobility might have applied only to a few employees such as highly mobile workers who needed access to resources wherever they were. Today, the demand for mobile and wireless technologies in business is pervasive. Business sectors across the globe, from retail businesses to warehouses to field service technicians, have embraced mobile phones, smartphones, personal digital assistants (PDAs), wireless-equipped laptop computers, and other devices for their convenience, portability and efficiency.

Whether they spend most of their time in an office, working from home or on the road, most business professionals carry a mobile phone. According to a recent study by IDC, enterprise telecommunications managers believe that as many as 28 percent of their employees are using a mobile phone as their primary work phone. Also, retail stores not only have IP phones next to cash registers; they may also equip employees with wireless IP phones clipped to their belts for receiving alerts or for running stocking applications. Salespeople working remotely use laptop computers with Wi-Fi and soft phones at hotels or airports to download e-mail or speak directly with clients or colleagues. Field force technicians may access their trouble ticket information while at the customer location using their wireless-enabled, ruggedized devices. Audio conferences are also increasingly conducted over mobile phones, smartphones, or laptop computers running soft-phone applications.

As mobility is increasingly woven into the fabric of enterprise activities, companies need to be proactive and make mobile communications more intelligent and seamless. This intelligence will allow employees to more easily place calls, screen unwanted calls, use presence to determine whether a fellow employee is available, send text messages as well as voice messages, and consolidate voicemail and messages into one visual interface on their mobile handsets. Intuitive interfaces and integrated features will let employees more easily reach other people and respond to time-sensitive tasks rather than waste time struggling with poorly integrated information or disconnected devices. At the same time, a proactive approach to seamless collaboration solutions will allow enterprise IT departments to better manage the security and costs associated with the usage of these solutions.

Identifying the Mobile Workforce Within Your Business

A typical business will have several mobile workforce types each with unique mobile workspace needs. An employee’s workspace is a combination of the place, device, applications and network that the employee uses in order to get the job done. The mobile workforce can be broadly categorized into five types depending on the nature of their jobs, their roles in the organization, and the information that they require to get their jobs done. These mobile workforce types and their work style characteristics have been developed based on industry analyst research and Cisco’s experience with its employee base and customers. When implementing a strategy to enable seamless mobile collaboration, businesses should consider all the ways in which delivery of the right unified communications solutions to the right mobile workforce on the right device can increase business agility and success.

Road Warriors

"Road warriors" spend more than 80 percent of their time outside the office. Typical road warriors include sales representatives, consultants, and business executives who work primarily offsite at the client or supplier's offices and from hotels, airports, and cafés when they travel. These employees are heavy users of productivity tools and applications such as e-mail and voice, and typically they don't require frequent access to back-end business applications. Given the specific information needs of road warriors, laptops are usually their preferred devices. In many instances, smartphones are important for this group as well.

Field Force

Typical job functions that fall under this workforce category include field service technicians in industries such as manufacturing, medical equipment, utilities, and telecommunications, as well as fleet delivery and public safety personnel. Field service technicians work primarily offsite, managing installation, service, or repairs of systems or equipment, and they move to multiple sites during the day to complete tasks. While at the job site, the field force typically requires access to specific applications, such as trouble ticket databases and client case history, with light e-mail usage and moderate voice usage primarily to communicate with their dispatchers or the main office. Depending on the nature of the job site (for instance, a customer's residence versus a power plant), the type of device that these workers use to access information varies from a standard handheld device or laptop to a rugged, military (MIL) specification handheld device or laptop.

The field force technician often does not have a dedicated direct outside business phone number. Many organizations have a department number, but do not necessarily publish individual phone numbers to external customers.

Teleworkers

Teleworkers are employees whose primary workspace is at home—typically, they do not also have specific office space at the business site. Typical teleworker job functions include call center staff, help desk staff, and a remote or inside sales force, all of whom work primarily out of their home offices. Increasingly, businesses are also offering a telework option to a portion of their workforce as part of corporate "green" initiatives and as a way to reduce real estate costs.

Teleworkers require easy, secure, reliable and continuous access to applications in addition to their email and voice applications. The typical device of choice is a laptop or desktop sometimes complemented by an IP Phone or a wireless phone. Teleworkers typically have a dedicated business phone line, and may use either an IP phone or a mobile phone.

Campus Mobiles

"Campus mobiles" spend the majority of their time mobile within the business campus. Typical campus mobile job functions include retail associates, IT support staff, medical practitioners and staff, distribution center managers, and safety or security personnel whose in-building job duties require mobility more than 60 percent of the time. In order to function efficiently, this type of worker typically needs continuous and seamless access to applications and data while moving around the building or campus. Depending on the nature of the job site or building (for example, clean room environments versus heavy manufacturing plants), this group of workers relies primarily on standard or rugged laptops or may use an industry-specific device. Campus mobiles typically do not have their own dedicated workspace or direct-dial business line, but utilize a shared workspace

and department phone number. Because they are so mobile, they typically have some type of mobile phone so they can be reached easily during the day.

Corridor Cruisers

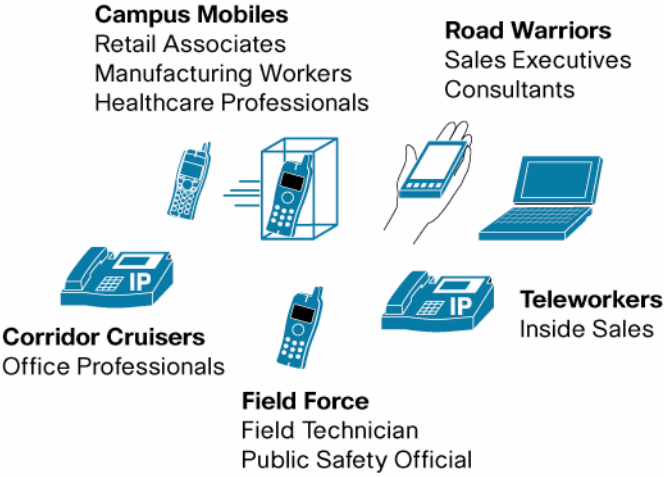
"Corridor cruisers" work primarily on campus, but are very mobile. Typical job functions for this group include office professionals, IT auditors and inspectors, plant and facilities management, and clerical and administrative staff who work primarily in an office environment and have a uniquely assigned (not shared) work area. While the job description of a corridor cruiser requires travel, it is much less frequent than that required of road warriors. Although they have a primary workspace, they are typically away from their desks more than 20 percent of the time, attending meetings both onsite and offsite. In order to be effective at their jobs, corridor cruisers require constant connectivity to their applications, with heavy voice usage and moderate e-mail access. These employees rely heavily on their laptops to get their jobs done.

Enabling Seamless Mobile Collaboration through Cisco Unified Communications Solutions

To resolve communications challenges, enterprises need the many types of mobility solutions that employees use, to be tightly coupled with an integrated and secure unified communications system.

The Cisco® Unified Communications Family of products offers the benefits of seamless mobile collaboration. This family of products combines the convenience, flexibility, and ubiquitous reach of mobile communications with the collaborative, secure, and managed benefits of Cisco IP Communications. The key to this integration is the ability to meet the demands of the different work force types, each of which require different device approaches to accomplish different jobs and tasks (Figure 1).

Figure 1. Different Mobile Workforce Types Require Different Device Approaches



The power of Cisco Unified Communications is that all the phones and devices are part of a system that is secure and managed by the enterprise. The combination of unified communications and mobility greatly enhances employee effectiveness by:

- Reducing complexity
- Supporting the use of a single business number and voice mailbox

- Allowing employees to transition communications more easily between voice calls, voicemail, e-mail, and instant messaging
- Improving an employee's ability to find the desired person or information the first time

Cisco Mobile Unified Communications Solutions by Mobile Workforce Type

Solutions for Road Warriors

By definition, road warriors spend more than 80 percent of their time outside the main office. These employees are important contributors to the success of the business since they interact directly with customers, partners and suppliers. To ensure that road warriors who work from a variety of locations do not miss a business-critical call, a baseline functionality that this group needs is the single-business-number-reach feature. Cisco Unified Mobility extends incoming calls to their primary business extension to alternate phone numbers, both landline and mobile. This baseline capability ensures that opportunities are not lost through missed phone calls. And by employing single number reach the business helps ensure retention of its customers even when an employee leaves, as customers continue to call the business, not the cell phone of the former employee.

After single-number-reach, businesses may consider truly extending the desktop unified communications experience to either a laptop or a smart phone. For road warriors who choose a laptop as their primary mobile device, either Cisco Unified Personal Communicator or Cisco Unified IP Communicator provides an effective mobile collaboration experience by extending many of the communications capabilities available to them in the office, on their laptop outside the office. Alternatively, Cisco Unified Mobile Communicator provides consistent seamless mobile collaboration experience for increasing number of Road Warriors who are using their feature-rich smart phones as their primary mobile workspace. Both Cisco Unified Personal Communicator and Cisco Unified Mobile Communicator combine an intuitive interface with powerful features of integrated directory information, presence, single-business-number-reach, calling features, secure text messaging, and conferencing.

Road warriors and the business may also find additional benefit in utilizing a dual-mode mobile phone (one with both cellular and wireless-LAN enabled) in addition to enabling Cisco Unified Mobility discussed above. Dual mode devices can be deployed as mobile extensions of the business IP Phones when inside the enterprise campus or branch, making it possible to receive or place calls controlled by Cisco Unified Communications Manager over the Cisco Unified Wireless Network. This provides the highest-quality coverage, and also has the potential to reduce telephony costs by taking phone calls off the cellular network. Cisco has partnered with multiple companies to provide mobility solutions that enable access to call control services of Cisco Unified Communications Manager over the wireless LAN infrastructure. Devices that are part of the Cisco Compatible Extensions (CCX) programs help ensure the best possible end-user and IT experience through enhancements for voice quality and call control.

Solutions for Corridor Cruisers

According to a recent IDC report entitled, "Worldwide Mobile Worker Population 2005-2009 Forecast and Analysis"[2], 25 percent of mobile office workers spend their time away from their desk in meetings. Corridor cruisers who spend much of their time at a desk, may be best served with a Cisco Unified IP Phone and modest mobility capability—such as the Cisco Unified Mobility single-

[2] Worldwide Mobile Worker Population 2005.2009 Forecast and Analysis, October 2005

business-number-reach feature that rings a mobile phone when the employee steps away from the office or is in meetings.

For those who spend more time away from their desks, increased mobile collaboration capabilities such as Cisco Unified Mobile Communicator and Mobile Business Solutions from Cisco and partners may also be appropriate. Furthermore, corridor cruisers may also utilize dual mode mobile phones such as those used by road warriors in order to improve reachability while lowering cost and complexity.

Solutions for Campus Mobiles

Even though campus mobiles may be located in the main office, they are rarely tied to a desk. Their job function requires them to be available at the place where work happens whether this is at a patient's bedside or next to the production line. Despite being away from a fixed workspace most of the time, campus mobiles are expected to be responsive and make decisions in the same prompt manner as if they were sitting at their desks. For this group of workers to be successful, it is imperative to provide them with collaborative applications and the information they require at the place where business happens.

Campus mobiles—including manufacturing workers, healthcare professionals, and retail associates who spend significant time with customers or in operational settings—can benefit from a Cisco voice over Wireless LAN (VoWLAN) solution. Cisco VoWLAN solutions combine the Cisco Unified Wireless Network, Cisco Unified Communications and Cisco Unified Wireless IP Phones such as 7921G which can also be used for application access, becoming a single purpose device for many job processes. In addition, Cisco's inclusive approach to mobility provides customers the flexibility to deploy phones that best address their business needs by including Cisco CCX certified wireless IP phones from a variety of partners for on the go communication.

Using a pervasive wireless network keeps coverage and reachability high in indoor areas where cellular coverage might be unreliable, while making it possible to use job-specific or more ruggedized devices. An additional benefit for the enterprise may also be that these types of devices are of little value outside the enterprise, so loss or shrinkage will be minimal. By integrating with the Cisco Unified Communications Manager, Cisco Unified Wireless IP Phones deliver all the convenience of the desk set in a mobile form factor.

Solutions for the Field Force

Most field force personnel use a mobile handheld device such as a rugged PDA or laptop. They also spend most of their time driving between customer locations or at the customer site, but do return regularly to a campus or branch location. Given their highly mobile jobs and the need to be easily reachable to respond to new customer requests, field force personnel need to be consistently connected back to their business. Mobile Business Solutions from Cisco and 3rd party partners such as Intermec deliver ubiquitous connectivity both in the wide area and local area network, over the Cisco Unified Wireless Network. VoWLAN capability is critical in environments such as large warehouses and distribution centers, where cellular coverage is often spotty at best.

For field force personnel who also have a distinct direct-dial fixed line, the Cisco Unified Mobility single-business-number-reach feature is recommended. For field force staff whose jobs involve ruggedized laptops or tablets, the Cisco Unified Personal Communicator enables a complete unified communications experience, including instant messaging, presence, conferencing, and more. With these solutions, field force employees can have communication with coworkers in case of complex customer issues.

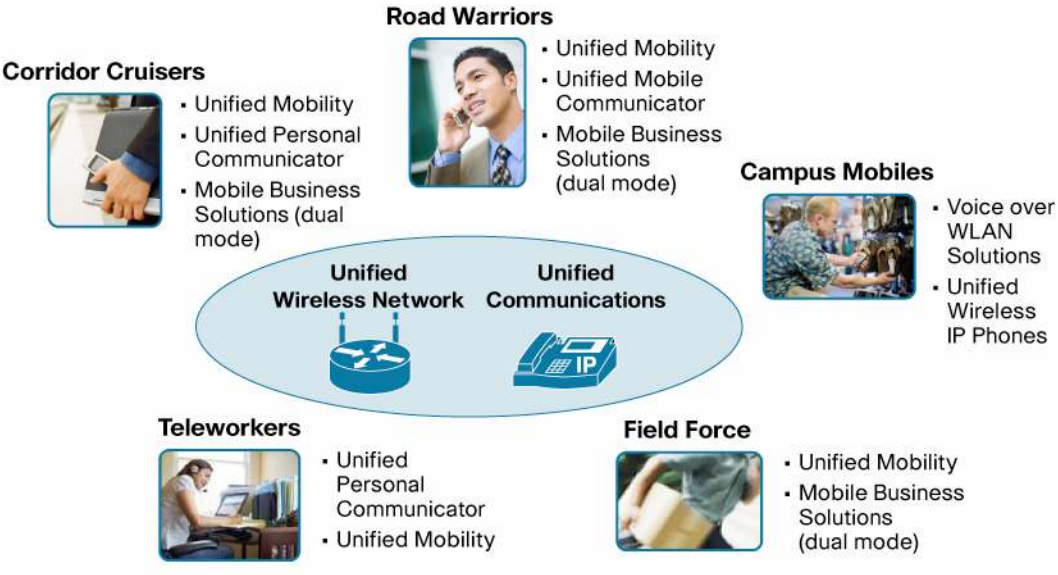
Solutions for Teleworkers

Teleworkers typically work out of a home office but need the tools and technologies that enable them to get their jobs done with the same business experience as if they were in the office. Teleworkers who typically work solely from their home can rely on the Cisco Enterprise Class Teleworker solution which integrates with Cisco IP Phones. This solution provides secure, always on connectivity to the corporate data and voice network.

In addition, teleworkers can also leverage solutions such as Cisco Unified Personal Communicator, which equips their laptop computers with soft-phone, instant messaging, conferencing and other powerful collaboration capabilities wherever their workspace may be.

Figure 2 illustrates the Cisco Unified Communications and Mobility solutions that empower the different workforces with seamless mobile collaboration. The diagram is followed by a brief overview of the different solutions.

Figure 2. Cisco Solutions Unify the Mobile Workspace



Cisco Unified Mobility Solutions: A single business number and a single voicemail enabling solution that gives users the ability to direct incoming calls to ring on a mobile phone as well as the business phone, providing a single number for callers to reach the user. This solution extends the rich call control capabilities of Cisco Unified Communications Manager from a mobile worker's primary workplace desk phone to any location or device of their choosing

Cisco Unified Mobile Communicator: An easy-to-use software application for mobile handsets that extends enterprise communications applications and services to mobile phones and smartphones. It streamlines the communication experience, enabling real-time collaboration across the enterprise. This product delivers rich Cisco Unified Communications features such as integrated directories, presence, single-business-number-reach, calling features, voicemail, secure text messaging, and conferencing.

Cisco Unified Personal Communicator: A powerful desktop computer application and companion to Cisco Unified Communications Manager that allows easy access to frequently used communications applications and services such as voice, video, instant messaging, Web

conferencing, voice mail, and presence information from a single, multimedia interface on your PC or Mac. Cisco Unified Personal Communicator simplifies communications and collaboration

Mobile Business Solutions: Cisco's portfolio of Mobile Business Solutions helps businesses connect and collaborate with their partners, customers, employees and assets anywhere, anytime to improve convenience, enhance responsiveness to customers, and increase competitive advantage

Cisco Voice over Wireless LAN Solutions: The Cisco Unified Wireless Network is a secure, scalable wireless LAN solution that allows anytime, anywhere access to information and collaboration tools to help transform business operations. The addition of voice-over-IP (VoIP) services on the Cisco Unified Wireless Network enables businesses to build flexibility and mobility into their voice communications while reducing costs. Employees can rely on the Cisco Unified Wireless IP phone 7921G or else use partner—provided, Cisco Compatible Extensions single-mode (Wi-Fi only) or dual-mode (cellular and Wi-Fi) devices to access all their communications capabilities while roaming within the campus. The Cisco voice-ready wireless network is secure and scalable and can support a range of interoperable devices and voice clients to ensure simple and reliable voice communications.

Cisco Wireless LAN Voice Services

To gain full advantage of converged mobile applications requires blending wired and wireless systems within an infrastructure that is continuously reliable, highly available, and scalable. Wireless network users expect the same level of secure connectivity, reliability, and performance for VoWLAN applications as they experience with a wired environment.

Cisco and our Wireless LAN Specialized Partners can help you enhance the performance and reliability of the voice applications running on your wireless LAN infrastructure. We help you design and implement a voice system that is secure and highly available to designated users, and that offers the lowest possible total cost of ownership.

The Future—Greater Mobility

Both the rapid adoption of mobility in the business world and the increasing speed of business together strongly suggest that the future growth of mobile devices and applications will be robust. From road warriors to corridor cruisers to campus mobiles, the range of mobile workers will require integrated and intelligent communications tools to cut through the clutter of data, voice, instant messaging, and other types of communications. Cisco Mobility Solutions will continue to be integrated into industry-leading Cisco Unified Communications to keep mobile professionals at the cutting edge of their businesses.

To learn more about how you can enhance your team's productivity with Cisco Mobility Solutions and Cisco Unified Communications, visit http://www.cisco.com/go/unifiedcommunications or http://www.cisco.com/go/mobility

Americas 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: 408 527-0883

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

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

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