

Using Cisco Business Mobility Solutions to Empower the Workforce with Insight, Collaboration, and Awareness

Overview

Today's work environment is fast paced and increasingly requires quick responses to partners and customers. With almost all employees mobile, connecting people with other people, information, and key assets is core to achieving business objectives. By enabling mobility, the workforce is empowered with insight, collaboration, and awareness, which, in turn, provides increased productivity and improved decision making. To deliver these three core mobility components, Cisco® has developed a framework based on a secure all IP network, intelligent network services, and devices and applications. Cisco supports a comprehensive and robust set of mobility solutions to empower the workforce in any location in which they work—within the campus and branch, at home, and on the go. Cisco Business Mobility solutions today include the Cisco Unified Wireless Network and Mobile Solutions for Unified Communications, an Enterprise-Class Teleworker solution, a Secure Remote Access solution, and Process Monitoring and Optimization solutions tested and validated with a wide range of devices and applications.

Four Trends Drive Need for Business Mobility

Today's work environment is dramatically different from the environment just 10 years ago. The old paradigm of most employees driving into work, conducting business at the office, and then returning home and putting work aside until the next day is no longer true. Four key trends are accelerating business requirements for mobility solutions.

Today's Anytime Work Environment

The demands of a global partner and customer base create the need for flexibility in when and how work gets done. With many companies having customers, partners, and team members around the world, work now happens in traditional off hours from places other than the office.

High-speed connectivity and Internet immediacy are also a factor. With low switching costs for customers, many businesses are looking to mobility as a way to speed responsiveness as well as increase personalization of customer service. Mobility can bring the company directly in front of the customer, creating an interaction instead of just a transaction.

The Mobility Generation

A vast percentage of today's workforce, the "baby boomers," are retiring over the next 10 to 20 years. The next generation coming into the workforce has grown up immersed in mobility technologies, using them daily without thinking in school and their personal lives. Communicating, finding information, and collaborating from anywhere are ingrained. The concept of having to "plug in" to do this is foreign. Consequently, the pool of talent that is currently arriving has a very different concept of how work should happen. Companies looking to attract and retain this talent are incorporating mobility as one of the tools in their arsenal to be more attractive than their competitors. For all concerned, mobility solutions allow businesses to deliver choice to the workforce—the power to balance work and personal time in a nonstop business world.

Business Continuity

As many enterprises do business well beyond their local region, it's essential to be able to continue operating even in the event of a local or regional crisis. Mobility becomes one of the main pillars of a business continuity plan that enables the workforce to continue getting their job done even if they cannot travel into the office.

Green Friendly

Many businesses are increasingly concerned about their role in the environment and are creating more environment friendly policies. Mobility solutions can play a significant role in assisting businesses in this area. Telework solutions, as an example, allow flexibility to work from home or commute during off hours.

Mobility is Changing from a Privilege to a Requirement

These four trends highlight a fundamental change in the way businesses are evaluating mobility and why so many analysts report that creating a mobility strategy is such a high priority for today's executives. No longer is a set of mobility solutions and tools the privilege of a subset of the workforce. None of the trends just described focuses on a particular job role. While in the past, mobility was viewed as a perk or requirement for a privileged few, such as the sales force or executives, it is now viewed much more broadly as a fundamental part of the toolset needed by all employees. Many different parts of the organization see the benefits of mobility to the broad set of employees, including:

- **Finance and Real Estate:** increased savings in real estate costs by maximizing use of office space
- **Human Resources:** increased employee satisfaction through better work/life balance
- **Sales and Operations:** increased productivity and customer responsiveness through direct touch
- **IT:** reduction in infrastructure costs and associated moves, adds, and changes

Defining Mobility

Given the broad set of job roles, environments, and business processes that demand mobility, mobility is a broad and potentially confusing topic. Stepping back, however, mobility simply becomes about empowering the workforce to achieve their job objectives, wherever they are.

When viewed this way, mobility is fundamentally about connecting people in the following ways:

- With other people, including colleagues, partners and customers
- With data and their business applications—that is, with the information critical to achieving organizational goals
- With critical assets—objects or people that are fundamental to core business processes

Mobility is an Experience

Cisco's vision for mobility is that it enables the same rich business experience available at one's desk, but at any location and at any time business needs to happen—whether this is at large within the campus, in the branch, at home, or on the go in an airport, a customer site, a hotel or conference center, a train or taxi.

Thinking about mobility as improving the experience of business changes the way we think about solutions. Mobility, then, is much more than wireless devices, or wireless connectivity, or sending e-mail. Mobility is not simply a cell phone or laptop with a wireless LAN or 3G card. Mobility solutions must enable the three key components of the daily business experience—insight, collaboration, and awareness—bringing rich data, voice, and video applications to the user wherever business is happening.

A Framework for Understanding How Mobility Accelerates Organization Goals

By creating continuous connections among people, core information, business applications, and critical assets even as they move, the business empowers its workforce with insight, collaboration, and awareness.

- **Insight:** The insight provided by mobility is not simply a matter of access to your applications and data center, but to essential information imbued with timeliness and context.
- **Collaboration:** Mobility makes it possible to connect and collaborate with team members, partners, and customers, and to do so efficiently and simply
- **Awareness:** Mobility enables awareness of the location and status of all the company's networked assets, and makes it possible to bring new ones onto the network immediately

Insight is the ability for employees to make accurate information-based decisions or input new information to the organization. Insight allows business processes to move forward and customer requests to be met. Insight, then, is much more than e-mail; it is access to those applications in every business that are used daily to meet revenue goals, improve customer satisfaction, and interact with our partners.

Collaboration connects us to the broader team that supports our day-to-day activities. Collaboration is much more than simply trying to reach a colleague, partner, or customer by phone, e-mail, instant messaging, or text messaging. The sheer number of methods of communication has led to frustration and a sense of being overwhelmed. Collaboration is about reaching the right person, not the device, and truly connecting to move business forward.

Awareness enables visibility into the key assets and people that are critical to achieving business objectives. Many businesses rely on high value or scarce assets—for example, production tool kits, blade servers, infusion pumps—to complete work processes and meet customer commitments each day. Connecting these valuable assets into the network so that their location and status is known reduces costs—both in search time and over-procurement—and also improves customer and employee satisfaction.

Cisco Mobility Solutions

To enable insight, collaboration, and awareness, mobility solutions must have three components:

- A secure all-IP network
- Intelligent network services
- Devices and applications

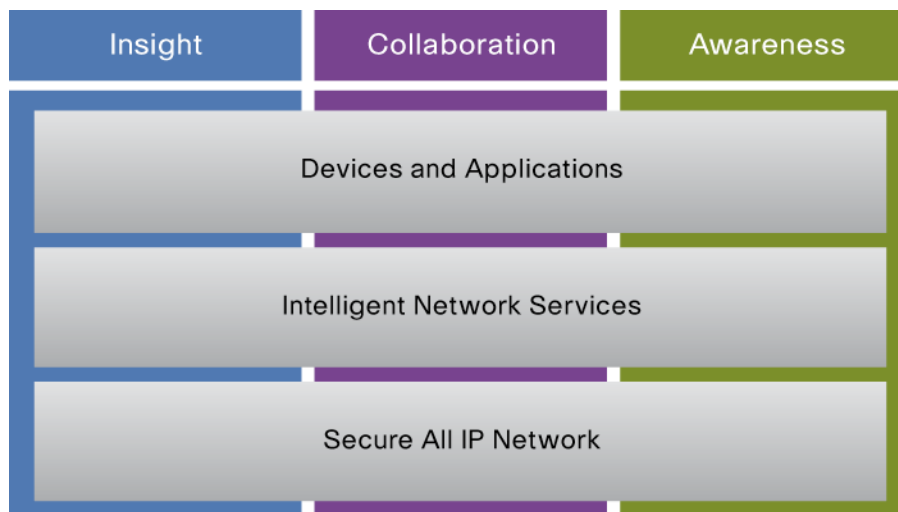
A secure all-IP network forms the platform for intelligent network services and networked applications. An IP-based network, whether wired or wireless, enables the transition from single-use proprietary networks to a multiuse network that delivers broader application support and lowers overall costs of deployment, maintenance, and support.

Intelligent network services form the next layer. Location, voice, security, presence, and other intelligent network services enhance user experience and improve business processes. Examples include location services that can alert personnel to the unauthorized movement of key assets or be used to enhance security through an additional authentication requirement.

The final layer is the set of devices and applications that work with the network and its services. The network and its services must support a broad range of devices and applications. Multiple job roles and thus user environments—executive, general and administrative, sales, field force, and many others—multiplied by the expansive variety of applications unique to each industry and the businesses within it make this requirement paramount. Proprietary end-to-end mobility solutions limit the organization's flexibility and choice as devices and applications continue to evolve and offer opportunity for improved experiences and business performance.

Figure 1 shows the three core building blocks of mobility solutions that enable insight, collaboration, and awareness.

Figure 1. The Building Blocks of Mobility Solutions



Cisco offers a broad range of solutions that enable mobility for the business in all the places business gets done—within the campus, the branch, at home, and on the go.

- Unified Wired/Wireless Network:** The Cisco Unified Wireless Network is helping businesses maintain agility and create new ways of doing business in this fast-paced world. The Cisco Unified Wireless Network unifies the wired and wireless networks to provide a secure, scalable, and manageable platform for delivering mobility services. Integration of the wired and wireless network enables unified security policies, intrusion prevention, quality of service (QoS) and location services that make business-critical wireless applications possible. With this innovative solution, unification occurs at all levels, including hardware, software, and services. Cisco is the only vendor that provides a solid migration path into all major Cisco switching and routing platforms via Cisco wireless LAN controllers

including the Cisco Catalyst® 6500 Wireless Services Module and the Cisco Catalyst 3750 Integrated Wireless LAN Controller.

For the branch, Cisco integrated services routers offer integrated routing, switching, security, highly secure wireless LAN (WLAN), virtual private network (VPN), voice over WLAN (VoWLAN), and now wireless WAN capabilities on a single platform. Cisco 3700 and 2800 Series Integrated Services Routers, in conjunction with the Cisco Wireless LAN Controller Module, bridges the gap between the wired and wireless LAN, providing seamless, secure connectivity backed by enterprisewide policy and manageability.

- **Business On-the-Go Solutions:** To support work away from the enterprise campus, Cisco offers multiple mobility solutions. From the home, the Cisco Enterprise-Class Teleworker solution provides data, applications, network connectivity, and toll-quality voice services through the Cisco 800 Series Integrated Services Router. Optional wireless LAN capability is available. Cisco Unified Personal Communicator on a laptop or a Cisco Unified IP Phone integrates with the enterprise's central Cisco Unified Communications solution.

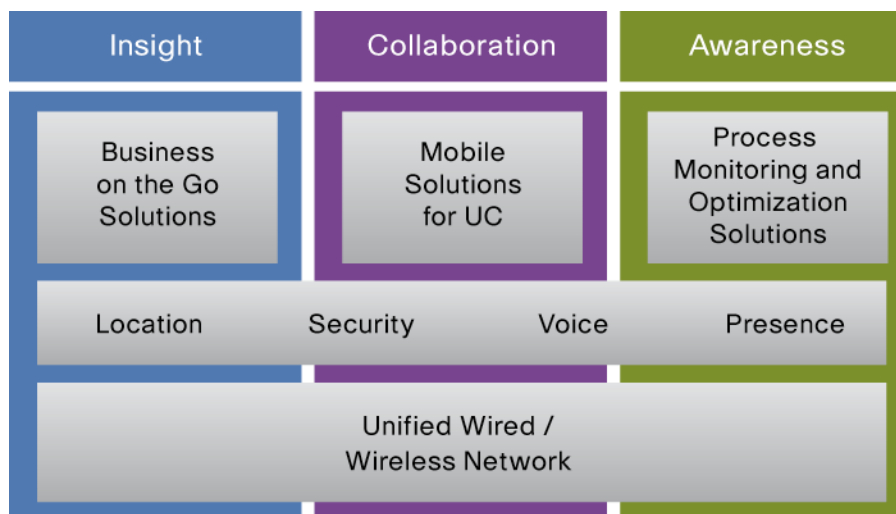
When workers are on the go, Cisco provides virtual private network (VPN) and voice over IP (VoIP) solutions that enable them to recreate their office resources through the Internet using a laptop or other network-enabled device. Using the Cisco AnyConnect VPN client and Cisco ASA 5500 Adaptive Security Appliance, employees can securely access data applications—including e-mail, instant messaging, client/server applications, file servers, databases, and intranet services—remotely. The VPN connection can extend voicemail and employee office phone extensions directly to their PC or to an IP phone. While away from the business, Cisco Security Agent offers industry-leading defense against targeted attacks, spyware, rootkits, and day-zero attacks. And when devices seek to access network resources, Cisco Network Admission Control (NAC) Appliance identifies whether mobile devices are compliant with your network's security policies and repairs any vulnerabilities before permitting access to the network.

- **Mobile Solutions for Unified Communications:** Cisco Unified Communications is dramatically helping businesses communicate more efficiently. Now Cisco is extending Cisco Unified Communications with mobile solutions that include smartphones or wireless IP phones in addition to desktop-based IP phones and single-business-number-reach services. 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 move communications more easily between voice calls, voicemail, e-mail, and instant messaging; and improving an employee's ability to find the desired person or information the first time. Cisco Unified Wireless IP Phone 7920 Series, laptops equipped with Cisco Unified Personal Communicator, and cell phones using Cisco Unified Mobile Communicator all integrate with Cisco Unified Communications Manager and Cisco Unified Presence to enable a single unified communications experience.
- **Process Monitoring and Optimization Solutions:** Business processes provide a competitive advantage and are unique to each company. Cisco Process Monitoring and Optimization solutions streamline business processes and even enable new and smarter ways of doing business. Advanced location and status services permit assets, equipment, and even people to be tracked and monitored. The result is more efficient use of resources and people, which improves bottom-line productivity and customer satisfaction. The Cisco

solution is based on the Cisco Unified Wireless Network, Cisco Location Appliance, and partner solutions for Wi-Fi and other radio tags.

As Figure 2 illustrates, today's business mobility solutions are underpinned by the Cisco Unified Wired/wireless network, and mobility services including location, voice, and presence. Mobility solutions are completed by applications and devices available from Cisco and its partners.

Figure 2. Today's Cisco Business Mobility Solutions



Summary

Businesses need solutions to cope with a fast-paced environment where people, information and assets are on the move. Without connecting them, business efficiency, customer responsiveness and the ability to create competitive advantage is limited. Connecting them with mobility solutions maximizes the current investment in infrastructure, applications and assets.

Mobility should deliver insight, collaboration, and awareness, empowering the workforce to achieve increased productivity and make better decisions. To deliver these three core mobility components, Cisco has developed a framework based on a secure all-IP network delivering intelligent network services completed by devices and applications. Cisco Business Mobility solutions today include Cisco Unified Wireless Network, Mobile Solutions for Unified Communications, an Enterprise-Class Teleworker solution, a Secure Remote Access solution, and Process Monitoring and Optimization solutions tested and validated with a wide range of devices



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