



Cisco's wireless networking products have the exclusive endorsement of the American Hospital Association (AHA).

## Exceptional Mobility with Simple Wireless Networking



## New opportunities in wireless technology extend far beyond the traditional benefits of mobility.



The healthcare industry is undergoing a transformation. Faced with mounting pressures to reduce costs while improving the overall quality of care, healthcare organizations worldwide are increasingly turning to information technology to help address business and technical challenges.

The Cisco® Unified Wireless Network provides the competitive edge that your growing healthcare business demands. Enabling instantaneous communication and information sharing, Cisco is a leader in providing secure, high-quality, advanced mobility services such as:

- **Voice over Wi-Fi**, which enables wireless voice and messaging, enhancing collaboration while improving productivity.
- **Guest access** extends network access to visiting physicians, patients and their guests for improved information sharing, employee productivity, and lower support costs.
- **Location services** allow employees to be contacted in the most effective manner depending on their location and availability, and consistently tracks mobile medical equipment, patients and staff.

- **Advanced security** protects your network and patient information against eavesdropping, unauthorized network access, and other types of attacks.

By combining its wired and wireless networks, your healthcare organization can implement the latest capabilities, while saving money and time using your IT staff's existing knowledge and training as well as current infrastructure. This integration also helps to assure that no matter what type of device is used to access the network, the same services and capabilities are available to all your employees.

### What is a Cisco Unified Wireless Network?

The Cisco Unified Wireless Network is the industry's only unified wired and wireless solution that increases caregivers productivity, enhances collaboration, and improves responsiveness to patients while cost-effectively addressing the security, deployment, management, and control issues involved in wireless LAN rollouts. The solution encompasses multiple elements to provide a complete solution to healthcare organizations: software clients, Cisco Aironet® access

points, Cisco Wireless LAN controllers, WLAN control system and Cisco Wireless Location Appliance to enable applications such as guest access, wireless voice over IP, location tracking, and wireless intrusion detection and prevention.

A wireless network lets clinicians and other employees move about as needed to effectively perform their jobs, while still staying in touch, ready to take action at a moment's notice. Your organization gains real-time wireless interaction, instant messaging, text paging, voice services, and network access away from their desk. Best-in-class Cisco technology delivers integrated, pervasive wireless network security with a reduced total cost of ownership (TCO), and enables greater caregiver productivity, collaboration, and responsiveness to patients.

Wireless configurations differ depending on your healthcare environment, but basically, they consist of:

- **Cisco Aironet® access points:** Access points are the senders and receivers that pick up and deliver the wireless signal around your healthcare site. They are usually installed in the ceiling or high on the wall to provide a clear network signal to and from the "client device" and can be managed by the WLAN controllers. Access points operate on a special series of frequencies called the IEEE 802.11 specifications.
- **Cisco WLAN controllers:** The WLAN controllers collect the radio information collected by the access points and provide a simple way to centrally manage the access points.
- **Cisco wireless control system:** Cisco provides an easy-to-use, centralized administrative suite to oversee and manage the wireless network. The Cisco Wireless LAN Management solution also automates many tasks: It is self-configuring, self-optimizing, self-defending, and self-healing in many situations.
- **Advanced security:** Security is doubly assured with additional software and integrated "authentication" tools to check the identity of all wired and wireless users. Additional intrusion detection and prevention systems help to guard against unauthorized users.
- **Location Solution:** A fast, simple path to efficiency for healthcare organizations who have a Cisco Unified Wireless Network. They cannot only monitor and optimize their processes; they can also instantly locate unauthorized wireless devices anywhere in their facilities.

## Reduce Operational Costs

One of the benefits of the Cisco Unified Wireless Network is centralized network management, which significantly reduces operating expenses. Studies show that the cost of buying a wireless network can account for just 20 percent of the overall TCO. The rest of the cost can be consumed by maintenance.

Cisco wireless solutions simplify software upgrades and network deployment and monitoring. The Cisco Wireless LAN Management solution lowers the daily cost of operating and maintaining the network by providing clear visibility and control of the RF environment. Better troubleshooting and smooth management of growth and change make your network administrators more productive.



## Improve Operational Efficiency

Being able to access the Internet from mobile devices such as phones and laptops has revolutionized hospital-to-hospital and hospital-to-patient interactions, changed business processes, and dramatically transformed the collaborative experience. For instance, with the Cisco Location-Aware healthcare solution healthcare organizations can rethink inventory management, boosting productivity by connecting people, places, and information.

A new culture of mobility is reshaping the way we do business. Since early 2005, more laptop and notebook computers have sold than desktops—and 95 percent of notebooks are Wi-Fi-enabled. This fact underscores how the healthcare field is moving toward mobility. But the most powerful notebook will live up to its full potential only when connected back to the information system, wherever it may be.

## Maximize Responsiveness

Responsiveness is essential to remaining competitive and delivering the best in class service. Mobility gives health-care organizations the agility to keep caregivers connected to critical information and tools at the point of care. Nurses and physicians can instantly be in touch with the right person to discuss questions regarding patients, check on the status of a lab test, or resolve a problem.

The Cisco Unified Wireless Network combines mobile video, data and voice communications on one network, allowing caregivers and patients to use them throughout the day. In addition, services such as guest access offer Internet connectivity to visiting physicians, patients and their guests without reducing network security. Your organization can keep all communications channels open, improving productivity and taking rapid advantage of new business opportunities.

## Increase Business Performance

Mobility increases caregivers productivity by providing access to medical applications and patient information regardless of time or location. Organizations offering wireless access maintain greater employee satisfaction while attracting the new unwired generation of talent. Thanks to always-on connectivity, location tracking and information mobility, your business processes are streamlined, saving on operational costs and clinician productivity and patient satisfaction.

## Sustain Competitive Advantage

Mobility allows real-time collaboration with suppliers and other healthcare organizations. Cisco wireless networking allows companies to use new applications such as asset tracking for inventory or staff management and controlled guest access. Based on this powerful technology, you can adapt to medical changes instantly.

## Maximize Wireless Security

The adoption of mobile technology is gaining momentum. Wireless local area networks (WLANs) are entering homes and are widely deployed in colleges and universities, as well as in businesses. However, one of the downsides of this popularity is that organizations are increasingly suffering from patients or new talents who bring in their own wireless access points if the healthcare institution isn't already covered. And this can open a hole in both your wired and wireless network security.

Security is a primary consideration when setting up your wireless network. Fortunately, Cisco leads the industry in delivering enterprise-class, standards-based protection. To address security gaps, the Cisco Unified Wireless Network supports specialized intrusion detection and prevention systems, which detect and contain these "rogue" access points, other unauthorized client devices, and non-standard networks. It also supports:

- The latest standards, such as Wi-Fi protected access
- Network Admission Control (NAC), which helps ensure that all wired and wireless endpoint devices (such as PCs, laptops, servers, and PDAs) that access network resources are adequately protected from security threats

## Your Next Step

Cisco Unified Wireless Network provides your healthcare organization with everything it needs to achieve the productivity, agility, and resilience offered by mobile communications. By taking advantage of these technologies, you can benefit from advanced services on a scaleable, flexible infrastructure. To take advantage of Cisco Unified wireless solutions, please visit: [www.cisco.com/go/wireless](http://www.cisco.com/go/wireless)



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