Cisco Unified Communications over WLAN Q&A

Overview

Q. What is the Cisco Unified Communications over WLAN solution?

A. The Cisco® Unified Communications over WLAN solution helps organizations meet the changing needs of an increasingly mobile, collaborative, and virtual workforce. By delivering a consistent mobile collaboration experience across wired and wireless networks, devices, and applications, organizations can reach new levels of productivity and responsiveness while taking advantage of least cost routing of mobile communications and enhanced in-building coverage provided by pervasive and high-performance corporate wireless LAN networks.

Q. What is the difference between the Cisco Unified Communications over WLAN solution and a voice over wireless LAN solution?

A. Unified Communications over WLAN is more than a voice-over-WLAN (VoWLAN) solution. It includes VoWLAN and is also a part of the overarching Cisco fixed-mobile-convergence vision, which applies to any business applications including unified communications, as well as a subset of Cisco's Seamless Mobile Collaboration solution.

Q. What are the primary benefits associated with the Unified Communications over WLAN solution?

A. There are a number of benefits to deploying the Cisco Unified Communications over WLAN solution, including:

- Improved In-Building coverage—Pervasive wireless LAN networks deliver quality campus voice and data mobility experience enabled by consistent and reliable in-building coverage
- Enhanced productivity—Depending on the types of mobile devices that employees use, organizations can save time and increase efficiency by up to 26 percent when employees have immediate access to their critical business communications tools. The enhanced productivity results from features such as single-number reach, single voice mailbox, and the ability to move calls between mobile phones and desk phones.
- Least Cost Routing of Mobile Communications—Using the WLAN instead of a cellular network for on-campus business communications can reduce cellular costs by 17 percent annually. The Cisco Unified Wireless Network and converged IP network allow organization to route mobile business communications on campus and between offices.

Q. What are the components of the Cisco Unified Communications over WLAN solution?

A. The three main components of this solution are the network, devices, and applications:

- Network—The network requires both Cisco Unified Communications and Cisco Unified Wireless Network (or Cisco Mobility Express Solution for small and medium-sized businesses).
- Devices—Examples include Wi-Fi phones, Wi-Fi laptops, or dual-mode phones. The Cisco Compatible Extensions program helps a wide variety of clients interoperate securely with Cisco's WLAN infrastructure and improves performance with power save mode, quality of service (QoS), assisted roaming, and other features.

- Applications—Applications extend enterprise communications through such capabilities as rich call control, messaging, conferencing, and presence capabilities to mobile phones. Applications help deliver a consistent mobile collaboration experience in the office and on the go.

Components of the Unified Communications over WLAN Solution

Network

Q. What are the main components of the Cisco Unified Communications network?

A. There are four components that make up the Cisco Unified Communications network solution:

- Cisco Unified Communications Manager and Cisco Unified Communications Manager Express, Cisco Unified Communications 500 Series products, or Communications Manager Business Edition: Manage multimedia communications processing between endpoints, unified communications applications, and voice-over-IP (VoIP) gateways.
- Cisco IOS® Voice Gateways: Cisco IOS Voice Gateways support a variety of signaling and call control protocols for cross-network communications.
- Cisco Unified Messaging Gateway: An open, secure, centralized, and scalable platform to intelligently route voice messages within the Cisco Unified Communications network.

Q. Which wireless networks work with the Cisco Unified Communications over WLAN solution?

A. The Cisco Unified Wireless Network and the Cisco Mobility Express Solution support unified communications voice applications. However, the Cisco Mobility Express Solution is built to address the needs of small and medium-sized businesses (SMBs) (less than 250 employees), whereas the existing Cisco Unified Wireless Network is primarily designed for mid-market and enterprise customers.

Q. What are the main components of the Cisco Unified Wireless Network?

A. The components of the Cisco Unified Wireless Network are:

- Cisco Aironet® access points—Connects wireless devices to networks and monitors the air space.
- Cisco Wireless LAN Controllers—Standalone, integrated, or modular devices that simplify the deployment and operation of wireless networks, helping to ensure smooth performance, enhanced security, and maximum network availability.
- Cisco Wireless Control System—Allows design, control, and monitoring of enterprise wireless networks from a centralized location, simplifying operations and reducing the total cost of ownership.
- Cisco Compatible Extensions program—Helps to ensure device interoperability and to improve voice performance with features such as QoS and assisted roaming.

Q. What products are included in the Cisco Mobility Express Solution?

A. Products within the Cisco Mobility Express Solution family cannot be combined with the Cisco Unified Wireless Network. Products in the Cisco Mobility Express Solution include:

- Cisco Wireless Express access points—Standalone and controller-based access points (Cisco 521 Wireless Express Access Points)

- Cisco Wireless Express Controller—Controller appliance for network unification and management of the access points (Cisco 526 Wireless Express Mobility Controller)
- Management systems—The Cisco Configuration Assistant, Cisco Monitor Manager, and Cisco Monitor Director management systems

Q. What considerations should be taken into account when deploying a Cisco Unified Communications over WLAN network?

A. IT organizations should consider a number of factors when designing and deploying voice applications across the wireless network to help ensure the same level of VoIP service and performance as delivered by a wired LAN. For example, QoS must be maintained to minimize delay and jitter. Security is also an important consideration; authentication and encryption are necessary, especially when designing networks that encompass both voice and data traffic. Other factors that should be considered include VLANs, access point coverage, interference, and capacity. For more information, please see the Design Principles white paper.

Applications

Q. Which unified communications applications are included in the Cisco Unified Communications over WLAN solution, and what are the associated benefits?

A. The Cisco applications that extend enterprise communications, such as rich call control, messaging, conferencing, and presence capabilities to mobile phones, deliver a consistent mobile collaboration experience in the office and on the go. Example applications include:

- Cisco IP Communicator—Calling and video capabilities like those delivered by IP phones using laptops
- Cisco Unified MeetingPlace® conferencing—On-demand, rich conferencing and collaboration with Cisco Unified MeetingPlace and Cisco Unified MeetingPlace Express
- Cisco Unified Personal Communicator—Rich, unified communications client that delivers integrated call control, presence, messaging, directory, and conferencing on PCs or Mac laptops
- Cisco Unity messaging—Ubiquitous, on-campus access to Cisco Unity Express, Cisco Unity Connection, and Cisco Unity messaging applications
- Nokia Intellisync Call Connect for Cisco—Makes dual-mode phones serve as a mobile extension of Cisco IP phones on campus

Q. What is Cisco IP Communicator?

A. Cisco IP Communicator is a Microsoft Windows-based soft phone application. It enables computers to function as Cisco Unified IP Phones, providing high-quality voice calls on the road, in the office, or from wherever users may have access to the corporate network.

Q. What is Cisco Unified MeetingPlace conferencing?

A. Cisco Unified MeetingPlace conferencing is a complete rich-media conferencing solution for midsize to large organizations that makes remote meetings as natural and effective as face-to-face meetings. The solution integrates enterprise-class voice, video, and Web conferencing with industry-leading setup and control capabilities to meet the needs of organizations looking for a single solution and user environment for all their conferencing needs. The solution is deployed on-network, behind the firewall and integrated directly into an organization's private voice and data networks and enterprise applications, to provide significant cost savings, security, and a superior user experience. As a component of the Cisco Unified Communications System, Cisco Unified MeetingPlace conferencing delivers productivity that

goes beyond traditional conferencing solutions by enabling incorporation of rich-media conferencing into a broad range of communication scenarios.

Q. What is Cisco Unified Personal Communicator?

A. Cisco Unified Personal Communicator is a powerful computer application that uniquely integrates your most frequently used communications tools and services. It provides quick and easy access to voice, video, Web conferencing, instant messaging, and presence information—all from a single, rich-media application on your PC or Mac. Cisco Unified Personal Communicator enables users to communicate and collaborate anytime, anywhere for smarter, more effective communications.

Q. What is Cisco Unity?

A. The Cisco Unity solution is a secure, proven, and reliable solution that delivers voice and unified messaging options that integrate transparently with IBM Lotus Domino, Novell GroupWise, and Microsoft Exchange. The Cisco Unity solution scales to meet the needs of large, multisite organizations, supporting up to 250,000 users in a networked environment, and can be deployed in a centralized or decentralized communications model.

Q. What is Nokia Intellisync Call Connect for Cisco Unified Communications Manager and Cisco Unified Communications Manager Express?

A. It is a software client developed by Nokia that integrates Nokia Eseries dual-mode phones with Cisco Unified Communications Manager or Cisco Unified Communications Manager Express. The solution simplifies device management for IT managers, delivers cost savings by routing calls across a corporate network, and gives users a single device that offers features available with a desktop office phone and also works on a cellular network when you are outside the office.

Devices

Q. What types of devices are supported with the Cisco Unified Communications over WLAN solution?

A. The solution is designed to support a number of different devices optimized for specific applications. Example devices include:

- Laptops—Mainly used for business applications and can be enhanced with soft phones
- Dual-mode phones—Offer cellular and WLAN coverage and are mainly used for e-mails and phone calls
- Cisco IP phones—For on campus use (WLAN only) and mainly used for phone calls

Q. How does Cisco ensure interoperability with the Cisco network?

A. The Cisco Compatible Extensions program helps a wide variety of clients interoperate securely with Cisco's WLAN infrastructure and provides features such as power save mode, QoS, and assisted roaming.

Q. Where can I find a list of client devices and dual-mode devices that are part of the Cisco Compatible Extensions program?

A. The wireless clients and dual-mode devices that have completed interoperability testing and all other requirements are on the Cisco Compatible Extensions program Website.

Q. Which Cisco IP phone is compatible with the Cisco Unified Communications over WLAN solution?

A. The Cisco Unified Wireless IP Phone 7921G is a second-generation phone that supports dual-band, 802.11a/b/g radios, a speakerphone, and has a high-resolution color display. It has dedicated volume and mute buttons, and an application button that supports push-to-talk via XML. The phone is also Cisco Compatible Extensions Version 4.0 compliant.

Mobile Workspace Profiles

Q. What types of mobile users benefit from the Cisco Unified Communications over WLAN solution?

A. Corridor cruisers, road warriors, and campus mobile users benefit most, as described in Table 1.

Table 1. User Types Benefits

User Type	Definition	Solution	Benefit
Road warrior	• Mobile outside the office more than 80 percent • Corporate office available • Uses mainly e-mail and phone	Mobile phone extension via Skinny Client Control Protocol (SCCP) or SIP client with Cisco Unified Communications Manager	Improved call success rate and responsiveness
		SCCP or SIP client with Cisco Unified Communications Manager	Increased productivity and communications efficiency with visual voicemail, presence, integrated call logs
		Dual-mode phones	Least-cost routing and reduced fixed-to-mobile costs
		Cisco Unified Wireless Networ	Increased in-building reachability through VoWLAN
Corridor cruiser	• Mobile within the office more than 20 percent of the time • Travels infrequently, often to campus • Uses phone, business applications, and a medium level of e-mail • Multiple devices • Travels outside of campus 30 percent	Mobile phone extension via SCCP or SIP client with Cisco Unified Communications Manager	Improved call success rates and responsiveness through single number reach and single voicemail
		SSCP or SIP client with Cisco Unified Communications Manager	Increased productivity and communications efficiency with visual voicemail, presence, integrated call logs
		Cisco Unified Personal Communicator	A rich collaboration experience when working from a laptop while on the go
		Cisco Unified Wireless Network	Increased in-building reachability through VoWLAN
		Cisco Unified Wireless IP Phones and/or dual-mode phones	Least-cost routing and reduced fixed-to-mobile costs
Campus mobile user	• Mobile within the campus more than 70 percent of the time • Shared phone, no desk • Heavy phone or pager user, business applications • Specialized devices (ruggedized, reader…)	Mobile Phone extension via SCCP or SIP client with Cisco Unified Communications Manager	Increase job/task preformed and improve quality of work by minimizing multiple information touches or delayed data input
		Cisco Unified Wireless Network	Increased in-building reachability through VoWLAN
		Cisco Unified Communications Manager and Cisco Unified Wireless IP Phones	Improved collaboration with support for partner Push to Talk applications
		Cisco Unified Wireless IP Phones	Least-cost routing and reduced fixed-to-mobile costs

Resources

Q. Where can I go to learn more about the Cisco Unified Communications over WLAN solution?

A. For more information, visit the following Websites:

- For more information about Cisco Unified Communications over WLAN, visit: http://www.cisco.com/go/ucoverwlan.
- For more information about the Cisco Unified Wireless Network, visit: http://www.cisco.com/go/unifiedwireless.
- For more information about the Cisco Compatible Extensions program, visit: http://www.cisco.com/web/partners/pr46/pr147/partners_pgm_concept_home.html.
- For more information about Mobile Solution for Unified, visit: http://www.cisco.com/en/US/netsol/ns735/networking_solutions_package.html.
- For more information about the Cisco Unified Communications, visit: http://www.cisco.com/go/uc.

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