IUWVN: Implementing Cisco Unified Wireless Voice Networks v2.0

Course ID#: 1575-971-ZZ-W

Hours: 35

Course Content

Course Description:

In this course, you will prepare for the CCNP Wireless certification, a professional-level certification specializing in the wireless field. Through hands-on labs, you will develop a firm understanding of how to integrate Voice over Wireless LAN (VoWLAN) services into the WLAN and learn to implement QoS, MPLS, and high-bandwidth applications into the wireless network.

- Implement QOS for Wireless Applications using the Best Practices guidelines
- Describe traditional and VOIP architecture.
- Design a wireless network for voice support
- Implement a Voice over Wireless LAN network infrastructure
- Implement Multicast in a wireless network
- Configure the wireless infrastructure for video and high bandwidth applications

Target Student:
- Network engineers
- Network administrators
- Network managers
- System engineers
- WLAN designers
- Project managers, and any individual wishing to attain the CCNP Wireless certification

Prerequisites:
- ICND1
- IUWNE

Topics:

Module 1 – Implement QOS for Wireless Applications
- Identify general considerations for wired and wireless QoS
- Describe wireless QoS deployment Schemes
- Configure the WLC and WCS for QoS
- Configure the wired infrastructure for QoS
- Understand best practices for wireless QoS deployments

Module 2 – Voice over Wireless Architecture
- Describe the evolution of Voice Architecture
- Describe VoWLAN Call Flow
- Design wireless for voice
- Describe design consideration related to voice but not directly to wireless
- Verify voice readiness

Module 3 – Implement VoWLAN
- Describe Hardware and Software Requirements for VOIP
- Configure a WLAN for Voice
- Configure the infrastructure devices for end to end voice over wireless
- Configure the voice over wireless phones
- Troubleshoot voice over wireless LANs

Module 4 – Implement Multicast over Wireless
- Describe general multicast concepts
- Describe the implications of multicast for wireless networks
- Configure multicast in wireless networks
- Troubleshoot multicast in wireless networks

Module 5 – Prepare the Wireless Network for Video and High Bandwidth Applications
- Implement QoS for Latency-Sensitive Applications
- Describe the benefits of 802.11n for video
- Calculate bandwidth requirements and configuring the wireless network for video applications

Hands On Labs
- Configure QoS on the controller
- End-to-end QoS on a router
- Capture and analyze QoS parameters
- Manage the WLAN from the WCS
- Verifying the Network Infrastructure and Placing a call
- Working with profiles
- Configuring Wireless security for voice devices
- Configure the Wireless Network for Multicast
- Create a Video WLAN
- Video WLAN and Multicast