Implementing Cisco Enterprise Wireless Networks

Duration: 180 Days **Course Code: ENWLSI** **Version: 2.0**

Overview:

The Implementing Cisco Enterprise Wireless Networks course gives you the knowledge and skills needed to secure wireless network infrastructure and troubleshoot any related issues. You'll learn how to implement and secure a wireless network infrastructure and use Cisco Identity Service Engine (ISE), Cisco Prime Infrastructure (PI), and Cisco Connect Mobile Experience to monitor and troubleshoot network issues.

The course provides hands-on labs to reinforce concepts including deploying Cisco Prime Infrastructure Release 3.5, Cisco Catalyst 9800 Wireless Controller Release IOS XE Gibraltar 16.10, Cisco Digital Network Architecture (DNA) Center Release 1.2.8, Cisco CMX Release 10.5, Cisco MSE Release 8.0 features and Cisco Identity Services Engine (ISE) Release 2.4.

Associated Certification: CCNP Enterprise, Cisco Certified Specialist - Enterprise Wireless Implementation

Exam: 300-430

Target Audience:

Individuals needing to understand how to implement, secure and troubleshoot a Cisco Enterprise Wireless Network.

Objectives:

- **After completing this course you should be able to:**
- Implement network settings to provide a secure wireless network infrastructure and troubleshoot security issues as it relates to the wireless network infrastructure
- Implement a secure wireless client and troubleshoot wireless client connectivity issues
- Implement and troubleshoot QoS in wireless networks
- Implement and troubleshoot advanced capabilities in wireless network services

Prerequisites:

Attendees should meet the following prerequsites:

- General knowledge of networks
- General knowledge of wireless networks
- Routing and switching knowledge
- CCNA - Implementing and Administering Cisco Solutions
- WLFNDU - Understanding Cisco Wireless Foundations
- ENCOR - Implementing and Operating Cisco Enterprise Network Core Technologies

Testing and Certification

Recommended as preparation for the following exams:

- **300-430** - Implementing Cisco Enterprise Wireless Networks Exam After passing the 300-430 exam you will gain the Cisco Certified Specialist - Enterprise Wireless Implmentation Certification and satisfy the concentration requirement for the CCNP Enterprise Certification. To achieve the CCNP Enterprise Certification you will also need to complete the ENCOR exam.

Content:

Securing and Troubleshooting the Wireless Network Infrastructure

- Implement Secure Access to the WLCs and Access Points
- Configure the Network for Access Point 802.1X Authentication
- Use Cisco DNA Center for Controller and AP Auto Install
- Implement Cisco Prime Infrastructure
- Define Network Troubleshooting Techniques
- Troubleshoot Access Point Join Issues
- Monitor the Wireless Network

Implementing and Troubleshooting Secure Client Connectivity

- Configure the Cisco WLC for Wireless Client 802.1x Authentication
- Configure the Wireless Client for 802.1X Authentication
- Configure a Wireless LAN for FlexConnect
- Implement Guest Services in the Wireless Network
- Configure the Cisco WLC for Centralized Web Authentication
- Configure Central Web Authentication on Cisco ISE
- Implement BYOD
- Implement Location-Aware Guest Services
- Troubleshoot Client Connectivity
- Describe Issues that Affect Client Performance
- Monitor Wireless Clients

Implementing and Troubleshooting QoS in Wireless Networks

- Implement QoS in the Wireless Network
- Configure the Cisco WLC to Support Voice Traffic
- Optimize Wireless Utilization on the Cisco WLC
- Implement Cisco AVC in the Wireless Network
- Implement Multicast Services
- Implement mDNS Service
- Implement Cisco Media Stream
- Troubleshoot QoS Issues in the Wireless Network
- Troubleshoot mDNS Issues
- Troubleshoot Media Stream Issues

Implementing and Troubleshooting Advanced Wireless Network Services

- Implement Base Location Services on Cisco Prime Infrastructure
- Implement Hyperlocation in the Wireless Network
- Implement Detect and Locate Services on Cisco CMX
- Implement Analytics on Cisco CMX
- Implement Presence Services on Cisco CMX
- Monitor and Locate Rogue Devices with Cisco Prime Infrastructure and Cisco CMX
- Monitor and Detect Wireless Clients with Cisco CMX and Cisco DNA Center
- Run Analytics on Wireless Clients
- Troubleshoot Location Accuracy with Cisco Hyperlocation
- Monitor and Manage RF Interferers on the Cisco WLC
- Monitor and Manager RF Interferers on Cisco Prime Infrastructure and Cisco CMX

Labs

- Lab Familiarization (Base Learning Lab)
- Configure Secure Management Access for WLCs and APs
- Add Network Devices and External Resources to Cisco Prime Infrastructure
- Customize Cisco Prime Infrastructure for Network Monitoring
- Configure 802.1X Port Access for the APs
- Capture a Successful AP Authentication
- Implement AAA Services for Central Mode WLANs
- Configure Guest Services in the Wireless Network
- Configure BYOD in the Wireless Network
- Capture a Successful Client Authentications
- Configure Cisco CMX Facebook Wi-Fi
- Configure QoS in the Wireless Network for Voice and Video Services
- Configure Cisco AVC in the Wireless Network
- Configure multicast DNS (mDNS) in the Wireless Network
- Capture Successful QoS Traffic Marking in the Wireless Network
- Configure Detect and Locate Services on the Cisco CMX

Further Information:

For More information, or to book your course, please call us on Head Office Tel.: +974 40316639

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