# CS-ENWLSI

# CCNP ENTERPRISE WIRELESS IMPLEMENTATION 300-430

**CISCO** Training & Certification

| DURATION | LEVEL | TECHNOLOGY | DELIVERY METHOD | TRAINING CREDITS |
|----------|-------|------------|-----------------|------------------|
| 5 Days | Professional | Cisco WLAN | ILT / VILT | No |

## INTRODUCTION

The goal of this 5-day course is provide delegates with the knowledge on

- Branch office wireless deployments, with a focus on FlexConnect;
- Wireless QoS standards and how they are implemented in Cisco wireless controllers, as well as key QoS capabilities such as Application Visibility and Control (AVC)
- Multicast traffic delivery in a wireless network, along with the features that can make it more efficient and methods to handle multicast DN,S as well as video stream delivery.
- How location is achieved using Wi-Fi technologies and how to deploy location engines, such as CMX/MSE and Cisco Spaces
- how to make the most of your location engine by implementing advanced features such as location-aware guest services and wireless intrusion protection systems (WIPSs).
- Wireless client authentication methods, such as Extensible Authentication Protocol (EAP) , guest wireless access and how devices can be securely onboarded to a network using a bring your own devices (BYODs) policy.
- Report and alarm management on Cisco Prime Infrastructure and Catalyst Center, and how to troubleshoot client connectivity and performance on a wireless LAN controller (WLC), Prime Infrastructure, and Catalyst Center.
- How the security of wireless devices can be improved by controlling access to the wireless infrastructure and how APs can authenticate to a network.

## AUDIENCE PROFILE

This course is primarily intended for:

- Wireless network engineers , Network Designers , Sales Engineers
- Individuals preparing for the Implementing Cisco Enterprise Wireless Networks #300-430 exam

## PREREQUISITES

The recommended knowledge and skills that a learner must have before attending this course are as follows:

- General knowledge of networks and wireless networks
- Routing and switching knowledge

## COURSE OBJECTIVES

On completion of this course, participants should be familiar with:

- Implementing FlexConnect
- Implementing Quality of Service on a Wireless Network
- Implementing Multicast
- Location Services Deployment
- Advanced Location Services Implementation
- Security for Wireless Client Connectivity
- Monitoring and Troubleshooting WLAN Components
- Device Hardening
- Tips and strategies for studying for the ENWLSI 300-430 exam.

# COURSE CONTENT

**Lesson 1: Implementing FlexConnect**
- Remote Office Wireless Deployment Modes
- FlexConnect Overview and Requirements
- Implementing FlexConnect with AireOS
- FlexConnect High Availability and Resiliency
- FlexConnect ACLs
- FlexConnect Smart AP Image Upgrades
- Implementing FlexConnect with IOS XE Controllers
- FlexConnect Best Practice Recommendations
- Office Extend
- ME and EWC

**Lesson 2: Implementing Quality of Service on a Wireless Network**
- An Overview of Wireless QoS Principles
- Implementing QoS Policies on Wireless Controllers
- Implementing QoS for Wireless Clients
- Implementing Application Visibility and Control

**Lesson 3: Implementing Multicast**
- Multicast Overview
- Implementing mDNS
- Implementing Multicast Direct

**Lesson 4: Location Services Deployment**
- Indoor Location
- Deploying Location Services
- Tracking Clients, RFID Tags, Rogues, and Interferers
- Customizing Location Services

**Lesson 5: Advanced Location Services Implementation**
- CMX and Cisco Spaces Services and Licenses
- Implementing Analytics
- Implementing Guest Portals
- Implementing aWIPS on Catalyst Center
- Ensuring Location Operational Efficiency

**Lesson 6: Security for Wireless Client Connectivity**
- Implementing 802.1X and AAA on Wireless Architectures
- Implementing Client Profiling
- Implementing BYOD and Guest

**Lesson 7: Monitoring and Troubleshooting WLAN Components**
- Using Reports on Cisco Prime Infrastructure and Catalyst Center
- Managing Alarms on Cisco Prime Infrastructure and Catalyst Center
- Troubleshooting Client Connectivity
- Troubleshooting and Managing RF Interferences

**Lesson 8: Device Hardening**
- Implementing Device Access Controls
- Implementing Access Point Authentication
- Implementing CPU ACLs on the Wireless Controller

**Lesson 9: Exam Final Preparation**
- Getting Ready
- Tools for Final Preparation
- Suggested Plan for Final Review/Study

**Appendix A**
- Wi-Fi 6 (802.11ax)

**Appendix B**
- Software-Defined Access with Wireless

**Appendix C**
- RRM TPC Algorithm Example

# ASSOCIATED CERTIFICATIONS & EXAM

Exam # 300-40 ENWLSI is associated with the CCNP Enterprise certification.

This exam tests a candidate's knowledge of wireless network implementation including Cisco FlexConnect, QoS, Multicast, advanced location services, security for client connectivity, monitoring and device hardening.