

Designing Cisco Wireless Enterprise Networks (CS-WIDESIGN)

Modality: Virtual Classroom

Duration: 3.5 Days

CLC: 30 Units

SUBSCRIPTION: Master Plus

About this course:

The 5 day Designing Cisco Wireless Enterprise Networks course has been developed for experienced network engineers interested in exploring and implementing the wireless networking technology. Students will not only be introduced to the right tools and technologies needed for designing, implementing, managing, and maintaining wireless networks, but the course will also cover mobility infrastructures, essentially making it ideal for IT ops training.

With focus on both the theory and principles of wireless networking, the designing Cisco wireless networks course is perfect for anyone interested in taking the next step with wireless technologies.

Course objectives:

This course has been designed to:

- Introduce students to the design process for wireless networks
- Explain how real-time and voice applications work and can be implemented
- Help students understand the basics of data coverage, location services, and Cisco Connected Mobile Experiences
- Walk students through the process of conducting site surveys
- Help expand horizons of wireless network engineers, allowing them to design creative networks
- Walk students through the steps that need to be taken to design different phases of the network from initial contact to post-deployment

Audience:

The intended audience for the Designing Cisco Wireless Enterprise Networks course is seasoned wireless network engineers who are interested in exploring wireless technologies further.

Prerequisites:

- Minimum 3 years of experience in the field of networking
- Knowledge and experience with Cisco AVC, LAN switching, Voice Signaling Protocol, Cisco Prime Infrastructure, Cisco Identity Services Engine, and Quality of Service in the networking realm.

Course Outline:

Module 1: Determine Customer Wi-Fi Design Process

- Customer Design Technical and Business
- Type of Wireless Design
- Gathering Existing Documentation and Important Information
- Meeting with the Customer

Module 2: Design for Data Coverage

- Common Business and Technical Drivers
- Cisco Capabilities
- Planning and Designing for RF
- Deployment Models
- Campus Considerations

Module 3: Design for Voice and Real-Time Applications

- Common Business and Technical Drivers
- Cisco Capabilities
- RF Planning and Design
- Cisco AVC and QoS

Module 4: Design for Location and Cisco CMX

- Common Business and Technical Drivers
- Cisco Capabilities
- RF Planning and Design
- Cisco CMX Ecosystem Analytics and Development

Module 5: Design for Wi-Fi Beyond the Enterprise Campus

- Common Business and Technical Drivers
- Cisco Capabilities
- RF Planning and Design

Module 6: Conduct a Site Survey

- Access and Safety Concerns

- Initial Evaluation
- Predictive Planning
- In-Depth Site Survey
- Post-Deployment Survey

Labs

- Case Study 1: Project Kickoff
- Case Study 2: Base Wi-Fi Design Recommendations
- Case Study 3: Voice and Real-Time Application Wi-Fi Design Recommendations
- Case Study 4: Location and Cisco CMX Wi-Fi Design Recommendations
- Case Study 5: Outdoor and High-Density Wi-Fi Design Recommendations
- Discovery 1: Estimating the Number of APs Using Cisco Prime Infrastructure as a Planning Tool
- Discovery 2: Conducting a Predictive Site Survey with Ekahau Site Survey Pro
- Discovery 3: Simulating a Layer 1 Sweep with Cisco Spectrum Expert
- Discovery 4: Simulating a Layer 1 Sweep with Metageek Chanalyzer
- Case Study 6: After Implementation