WLCOR

Implementing and Operating Cisco Wireless Core Technologies

40 horas | Profissional | Cisco

INTRODUÇÃO

The Implementing and Operating Cisco Wireless Core Technologies (WLCOR) training develops professional-level expertise in implementing and operating Cisco enterprise wireless networks. You will learn wireless architecture design and physical infrastructure deployment. You will configure Cisco Catalyst 9800 Series wireless LAN controllers (WLCs), Cisco access points, and Cisco Meraki platforms for secure client connectivity. You will implement advanced features, including roaming and guest networking. You will deploy comprehensive monitoring and management solutions using Cisco Catalyst Center. You will leverage application programming interfaces (APIs) and artificial intelligence (AI) for operational automation and develop systematic troubleshooting methodologies using packet analysis and diagnostic tools.

This training prepares you for the 350-101 WLCOR v1.0 exam. If passed, you earn the Cisco Certified Specialist - Wireless Core certification and satisfy the core exam requirements for the Cisco Certified Network Professional (CCNP) and Cisco Certified Internetwork Expert (CCIE) Wireless certifications. This training also earns you 32 Continuing Education (CE) credits toward recertification.

How You'll Benefit

This training will help you:

• Acquire hands-on skills in designing, implementing, and operating enterprise-grade Cisco wireless networks, including configuring Cisco Catalyst 9800 Series WLCs, access points, and Meraki platforms

• Learn to leverage APIs and AI-enhanced features within Cisco Catalyst Center to automate complex operational tasks and improve overall network efficiency

• Develop systematic methodologies for diagnosing wireless performance issues and connectivity failures using advanced packet analysis and diagnostic tools

• Deepen your understanding of RF propagation, antenna theory, and the latest 802.11ax/be protocols to build and maintain high-performance, future-ready wireless infrastructure

• Prepare for the 350-101 WLCOR v1.0 exam

• Earn 32 CE credits toward recertification

OBJETIVO DO CURSO

• Analyze wireless governance, topologies, and legacy protocol evolution to establish foundational network design principles
• Analyze RF propagation characteristics and channel behavior to diagnose wireless performance issues
• Apply RF mathematical calculations and antenna theory principles to optimize wireless network performance
• Evaluate 802.11ax and 802.11be protocols to implement high-performance, future-ready wireless networks
• Evaluate wireless network architectures and design physical infrastructure for enterprise deployments
• Configure Cisco wireless controllers and access points to establish secure client connectivity
• Implement secure management access and client policies for operational wireless network
• Analyze client device capabilities and configure connectivity across diverse operating systems
• Configure local WLAN security and authentication mechanisms on controllers
• Configure external WLAN security and authentication
• Implement client roaming protocols and guest networking to extend wireless services
• Implement Cisco Catalyst Center and integration tools for unified wireless network management
• Configure performance and security monitoring to ensure optimal wireless network functionality
• Evaluate and implement API automation and AI-enhanced features for intelligent wireless operations
• Analyze wireless frames using packet capture tools to diagnose network behavior and issues
• Troubleshoot client connectivity and AP join failures using systematic diagnostic methodologies

PÚBLICO-ALVO

Wireless Network Engineers, Network Architects, Network Administrators, Network Automation Engineers

PRÉ-REQUISITOS

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:
• Solid foundation in IT literacy (e.g., understanding of common IT concepts and enterprise software)
• Prior experience or basic experimentation using Cisco wireless technologies (e.g., APs and wireless LAN controllers)
• Familiar with RF theory, Wi-Fi standards, security protocols, Cisco wireless architecture (e.g., CAPWAP, centralized access control), Cisco DNA Center, and basic troubleshooting—concepts learned in the WLFNDU Learning Path
These skills can be found in the following Cisco Learning Offerings:
• Implementing and Administering Cisco Solutions (CCNA)
• Understanding Cisco Wireless Foundations (WLFNDU)

CONTEÚDO PROGRAMÁTICO

Course Outline

Wireless Foundation Review

Radio Frequencies Review

RF Mathematics and Antenna Theory Review

Modern Wi-Fi Protocols

Physical Wireless Networks

Cisco Wireless Network Installation and Configuration

Wireless Network Operation

Wireless Client Identification and Configuration

Wireless Network Security and Local Authentication

External Authentication for Wireless Networks

Extend the Wireless Network

Cisco Wireless Network Management

Wireless Network Monitoring

APIs and AI with Wi-Fi

Wireless Network Analysis

Troubleshoot Wireless Network

Lab Outline

Configure Physical Infrastructure of a Wireless Network

Configure Initial Setup of Cisco Wireless Network

Configure WLAN Settings for Client Connectivity

Configure Client Management Rules and Policies

Configure Local Authentication on Catalyst 9800 WLC

Configure External Authentication for Wireless Networks

Configure Guest Networking

Investigate Cisco Catalyst Center

Monitor Wireless Network Performance and Security

Configure Wireless API Functionality

Cisco Catalyst Center AI Capabilities

Analyze Wireless Frames

Troubleshoot Client Connectivity and AP Join Issues