Implementing and Operating Cisco Wireless Core Technologies v1.0 (350-101)

Exam Description: Implementing and Operating Cisco Wireless Core Technologies v1.0 (WLCOR 350-101) is a 120-minute exam associated with the CCNP and CCIE Wireless Certification. This exam tests a candidate's knowledge of implementing core wireless technologies including radio frequency fundamentals, 802.11 technology fundamentals, client connectivity, wireless monitoring and management, automation and AI. The course, Implementing and Operating Cisco Wireless Core Technologies, helps candidates prepare for this exam.

The following topics are general guidelines for the content likely to be included on the exam. However, other related topics may also appear on any specific delivery of the exam. To better reflect the contents of the exam and for clarity purposes, the guidelines below may change at any time without notice.

15% 1.0 RF Fundamentals

- 1.1 Describe the propagation of radio waves
- 1.2 Describe RF signal measurements
  - 1.2.a Signal strength (RSSI, transmit power, receive sensitivity)
  - 1.2.b Interference, noise, rogue AP
  - 1.2.c Device capabilities (smartphones, laptops, tablets)
  - 1.2.d SNR
- 1.3 Describe the principles of RF mathematics
- 1.4 Describe Wi-Fi antenna characteristics

10% 2.0 802.11 Technology Fundamentals

- 2.1 Describe Wi-Fi governance
  - 2.1.a Regional regulatory bodies
  - 2.1.b IEEE 802.11
  - 2.1.c Wi-Fi Alliance
- 2.2 Describe usable channel and power combination
  - 2.2.a Regional EIRP limitation examples
  - 2.2.b Frequency bands
  - 2.2.c RRM fundamental
- 2.3 Describe 802.11 fundamentals
  - 2.3.a Modulation techniques
  - 2.3.b Channel width
  - 2.3.c MIMO / MU-MIMO / MLO
  - 2.3.d Wireless topologies
  - 2.3.e Frame types

10% 3.0 Wireless Network Implementation

- 3.1 Describe Cisco wireless architectures
  - 3.1.a Fabric
  - 3.1.b Mesh

3.1.c Local
3.1.d Cloud

3.2 Implement the physical infrastructure connections for a wireless network and components

3.3 Implement the AP, WLC, and dashboard management access connections

20% 4.0 Wireless Network Operation

4.1 Configure the initial setup of Cisco wireless infrastructures

4.2 Implement AP discovery and join process

4.3 Implement AP modes

4.4 Configure WLAN access for client connectivity

4.5 Configure client management rules and policies on multiple platforms such as WLC, Dashboard, Catalyst Center, ISE, Spaces, and mobile device management

20% 5.0 Client Connectivity Configuration

5.1 Configure authentication mechanisms outside the controller

5.2 Configure WLAN authentication mechanisms on the controller

5.3 Configure client connectivity in different operating systems

5.4 Describe roaming

5.5 Configure wireless guest networking

15% 6.0 Wireless Monitoring and Management

6.1 Manage wireless network maintenance

6.2 Configure client monitoring

6.3 Troubleshoot client connectivity

6.4 Describe device and platform integrations

10% 7.0 Automation and AI

7.1 Interpret basic Python components and scripts

7.2 Describe NETCONF/YANG

7.3 Interpret wireless infrastructure APIs

7.4 Describe AI Analytics in Catalyst Center

7.5 Describe AI Operations in Catalyst Center

7.6 Describe AI-RRM