Implementing Cisco Enterprise Wireless Networks v1.1 (300-430)

Exam Description: Implementing Cisco Enterprise Wireless Networks v1.1 (ENWLSI 300-430) is a 90-minute exam associated with the CCNP Enterprise Certification. This exam certifies a candidate's knowledge of wireless network implementation including Cisco FlexConnect, QoS, Multicast, advanced location services, security for client connectivity, monitoring and device hardening. The course, Implementing Cisco Enterprise Wireless Networks, helps candidates to 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**	**FlexConnect**
	1.1	Deploy FlexConnect components such as switching and operating modes
	1.2	Deploy FlexConnect capabilities
	1.2.a	FlexConnect groups and roaming
	1.2.b	Split tunneling and fault tolerance
	1.2.c	VLAN-based central switching and Flex ACL
	1.2.d	Smart AP image upgrade
	1.3	Implement Office Extend
10%	**2.0**	**QoS on a Wireless Network**
	2.1	Implement QoS schemes based on requirements including wired to wireless mapping
	2.2	Implement QoS for wireless clients
	2.3	Implement AVC including Fastlane (only on WLC)
10%	**3.0**	**Multicast**
	3.1	Implement multicast components
	3.2	Describe how multicast can affect wireless networks
	3.3	Implement multicast on a WLAN
	3.4	Implement mDNS
	3.5	Implement Multicast Direct
10%	**4.0**	**Location Services**
	4.1	Deploy CMX and Cisco Spaces on a wireless network
	4.2	Implement location services
	4.2.a	Client tracking
	4.2.b	RFID tags (tracking only)
	4.2.c	Interferers
	4.2.d	Rogue APs

| | | 4.2.e | Clients |

10%   5.0   Advanced Location Services

5.1   Implement CMX and Cisco Spaces components
- 5.1.a   Detect and locate
- 5.1.b   Analytics
- 5.1.c   Presence services
- 5.1.d   Captive portals
- 5.1.e   Connectors

5.2   Implement location-aware guest services using custom portal and Facebook Wi-Fi
5.3   Troubleshoot location accuracy using Cisco Hyperlocation
5.4   Troubleshoot CMX high availability
5.5   Implement wIPS using Cisco DNA Center

20%   6.0   Security for Wireless Client Connectivity

6.1   Configure client profiling on WLC and ISE

6.2   Implement BYOD and guest
- 6.2.a   CWA using ISE (including self-registration portal)
- 6.2.b   LWA using ISE or WLC
- 6.2.c   Native supplicant provisioning using ISE
- 6.2.d   Certificate provisioning on the controller

6.3   Implement 802.1X and AAA on different wireless architectures and ISE

6.4   Implement Identity-Based Networking on different wireless architectures (VLANs, QoS, ACLs)

15%   7.0   Monitoring

7.1   Utilize reports on PI and Cisco DNA center

7.2   Manage alarms and rogues (APs and clients)
- 7.2.a   WLC
- 7.2.b   PI
- 7.2.c   Cisco DNA center

7.3   Manage RF interferers
- 7.3.a   WLC
- 7.3.b   PI
- 7.3.c   Cisco DNA center

7.4   Troubleshoot client connectivity
- 7.4.a   WLC
- 7.4.b   ISE
- 7.4.c   PI
- 7.4.d   Cisco DNA center

10% **8.0** **Device Hardening**

    8.1   Implement device access controls (including RADIUS and TACACS+)

    8.2   Implement access point authentication (including 802.1X)

    8.3   Implement control plane ACLs on the controller