

# CCIE Wireless v2.0 Lab Exam Topics

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

### Written and Lab Exams v2.0 Now Available:

Candidates can prepare using the CCIE Wireless Written Exam Topics v2.0, and the Lab Exam Topics v2.0. For more information on how to prepare for the exams, please view the Written Exam Study/Learn or Lab Exam Study/Learn tabs.

### Exam Sections and Sub-task Objectives

<b>1.00</b>	<b>Configure and Troubleshoot L2/L3 network infrastructure to support WLANs</b>
<b>1.01</b>	Configure and troubleshoot wired infrastructure to support WLAN's
	(a) VLANs
	(b) VTP
	(c) STP
	(d) Etherchannel
	(e) HSRP
	(f) VSS
<b>1.02</b>	Configure and troubleshoot network connectivity for
	(a) WLAN Clients
	(b) Standalone WLCs

	(c) Integrated WLCs
	(d) Lightweight APs
	(e) Autonomous Aps
<b>1.02</b>	Configure and troubleshoot PoE for AP's
<b>1.03</b>	Configure and troubleshoot QoS on the switching infrastructure
	(a) classification
	(b) end-to-end qos
<b>1.04</b>	Configure and troubleshoot Multicast on the switching infrastructure
	(a) static multicast routing
	(b) PIM
	(c) igmp
<b>1.05</b>	Configure and troubleshoot basic IPv4 connectivity
	(a) Subnetting
	(b) Static routing
	(c) basic OSPF
	(d) basic EIGRP
<b>1.06</b>	Configure and troubleshoot basic IPv6 connectivity
	(a) Subnetting
	(b) Static routing
<b>1.07</b>	Configure and troubleshoot wired security
	(a) ACLs
	(b) mac filtering / port-security
<b>1.08</b>	Implement client to connect/authenticate to SSIDs
<b>2.00</b>	<b>Configure and Troubleshoot Infrastructure Application Services</b>

<b>2.01</b>	Configure and troubleshoot DNS, DHCP, NTP , SYSLOG, SNMP
<b>2.02</b>	Configure and troubleshoot AAA Server Infrastructure
	(a) client authentication
	(b) management authentication
	(c) Basic PKI for dot1x and webauth
<b>3.00</b>	<b>Configure and Troubleshoot Autonomous deployment model</b>
<b>3.01</b>	Configuring and controlling management access
<b>3.02</b>	Configuring and Troubleshooting network services
	(a) NTP / sntp
	(b) SYSLOG
<b>3.03</b>	Configuring and troubleshooting different modes and roles
	(a) Root
	(b) WGB
	(c) Bridge
<b>3.04</b>	Configuring and troubleshooting SSID/ MBSSID, including Bridging groups
<b>3.05</b>	Configuring and troubleshooting Security
	(a) L2 security policies
	(b) association filters
	(c) MFP
	(d) peer to peer blocking
	(e) Local radius
	(f) dot1x profiles
<b>3.06</b>	Configuring and troubleshooting Radio Settings

<b>3.07</b>	Configuring and troubleshooting IGMP snooping
<b>3.08</b>	Configuring and troubleshooting QOS
<b>3.09</b>	Configuring and troubleshooting WDS (L2)
<b>3.10</b>	Upgrade Autonomous to Unified
<b>4.00</b>	<b>Configure and Troubleshoot Unified deployment model</b>
<b>4.01</b>	Configuring and controlling management access
<b>4.02</b>	Configuring and troubleshooting discovery mechanisms
<b>4.03</b>	Configuring and Troubleshooting network services
	(a) NTP
	(b) SYSLOG
	(c) DHCP
	(d) DNS
<b>4.04</b>	Configuring and Troubleshooting Interface settings
<b>4.05</b>	Configuring and Troubleshooting unified AP
	(a) dot1x
	(b) locally significant certificates
	(c) office extend
	(f) AP Modes
	(g) AP Authentication / authorization
	(h) High availability
	(i) Logging
	(j) local / global configuration
<b>4.06</b>	Configuring and Troubleshooting AP groups
<b>4.07</b>	Configuring and Troubleshooting WLANs
	(a) client exclusion

	(b) load-balancing
	(c) band select
	(d) passive clients
	(e) DHCP policies
	(f) multicast VLAN
	(g) radio policies
<b>4.08</b>	Configuring and troubleshooting HREAP
	(a) local auth
	(b) h-reap groups
	(c) h-reap local switching
	(d) address learning
<b>4.09</b>	Configuring and troubleshooting Radio Settings
	(a) client link
	(b) power
	(c) channel settings
	(d) antenna selection
	(e) beaconing
	(f) data rates
	(g) channel bonding
	(h) Cleanair
	EDRRM
	Interferer detection
	air quality
<b>4.10</b>	Implement RRM/ AutoRF
	(a) country selection
	(b) CHD, DCA, TPC
	(c) RF groups
	(d) profiles

<b>4.11</b>	Implement Local DHCP services for clients
<b>4.12</b>	Configuring and troubleshooting Security settings
	(a) L2 security policies (802.11i, static dynamic WEP, mac filtering, etc..)
	(b) AAA (WLC to Radius/LDAP)
	(c) local EAP authentication (against local user list, and external LDAP)
	(d) peer to peer blocking
	(e) L3 security policies (Webauth, pass-through)
	(f) WPS settings (IDS...)
	(g) ACL Interface/CPU/WLAN
	(h) NAC
	(i) MFP
<b>4.13</b>	Configuring and troubleshooting mobility
	(a) L2/L3 roaming
	(b) multicast optimization
	(c) mobility group scaling
<b>4.14</b>	Configuring and troubleshooting controller redundancy/fallback (APs and clients)
<b>4.15</b>	Configuring and troubleshooting Guest
	(a) wired
	(b) wireless
<b>4.16</b>	Configuring and troubleshooting multicast
<b>4.17</b>	Configuring and troubleshooting QOS
	(a) BW profile metal
	(b) EDCA
	(c) BW restrictions
	(d) per user BW roles
<b>4.18</b>	Configuring and troubleshooting Mesh

	(a) AP authorization
	(b) BGN
	(c) Ethernet bridging
	(d) serial backhaul
<b>5.00</b>	<b>Configure and Troubleshoot WCS</b>
<b>5.01</b>	Configure and troubleshoot management access
	(a) AAA
	(b) virtual domain
<b>5.02</b>	Configure and troubleshoot NTP
<b>5.03</b>	Perform basic Operations
	(a) Create and deploy templates, template groups
	(b) Create a floor coverage proposal
	(c) Prepare the building/floor map
	(d) Implement controllers to WCS
	(e) high availability
	(f) AP placement
	(g) Mesh monitoring
	(h) voice audits and location readiness
<b>5.04</b>	Performing maintenance operations
	(a) backup / restore
	(b) client troubleshooting
	(c) AP conversion
	(d) logging
<b>5.05</b>	Security management
	(a) audit configuration
	(b) Rogue Detection, classification and management
	(c) Alerts

	(d) Alarms and Events
	(e) security index
	(f) IDS / WIPS
	(g) Service Levels
<b>5.06</b>	RF Management
	(a) RRM events
	(b) Cleanair
<b>5.07</b>	Implement MSE
	(a) Configuring and troubleshooting management access
	(b) Implement network services
	(c) Performing maintenance operations
<b>6.00</b>	<b>Configure and Troubleshoot WLAN Services</b>
<b>6.01</b>	Voice for autonomous deployments
	(a) RF Design considerations
	(b) Implement the network infrastructure to support Voice over Wireless
	(c) General configuration settings
	(d) Security settings
	(e) CAC
	(f) Audit Voice deployments
<b>6.02</b>	Voice for unified deployments
	(a) RF Design considerations
	(b) Implement the network infrastructure to support Voice over Wireless
	(c) General configuration settings
	(d) Security settings
	(e) CAC
	(f) Audit Voice deployments



<b>6.03</b>	Video
	(a) RF Design considerations
	(b) Implement the network infrastructure to support Video over Wireless
	(c) General configuration settings
	(d) CAC
<b>6.04</b>	Context aware services
	(a) RF Design Considerations
	(b) Location
	(c) Notifications