



CCIE HUB

CCNP ENTERPRISE ENCOR 350-401



TALK TO US :

- +91 96502 72078
- +91 70111 33431
- infoecciehub.in

1.0 ARCHITECTURE 15%

➤ 1.1 Explain the different design principles used in an enterprise network

- 1.1.a High-level enterprise network design such as 2-tier, 3-tier, fabric, and cloud
- 1.1.b High availability techniques such as redundancy, FHRP, and SSO

➤ 1.2 Describe wireless network design principles

- 1.2.a Wireless deployment models (centralized, distributed, controller-less, controller-based, cloud, remote branch)
- 1.2.b Location services in a WLAN design
- 1.2.c Client density



➤ 1.3 Explain the working principles of the Cisco SD-WAN solution

- 1.3.a SD-WAN control and data planes elements
- 1.3.b Benefits and limitations of SD-WAN solutions



➤ 1.4 Explain the working principles of the Cisco SD-Access solution

- 1.4.a SD-Access control and data planes elements
- 1.4.b Traditional campus interoperating with SD-Access

➤ 1.5 Interpret wired and wireless QoS configurations

- 1.5.a QoS components
- 1.5.b QoS policy

➤ 1.6 Describe hardware and software switching mechanisms such as CEF, CAM, TCAM, FIB, RIB, and adjacency tables

2.0 VIRTUALIZATION 10%

➤ 2.1 Describe device virtualization technologies

- 2.1.a Hypervisor type 1 and 2
- 2.1.b Virtual machine
- 2.1.c Virtual switching

➤ 2.2 Configure and verify data path virtualization technologies

- 2.3.a LISP
- 2.3.b VXLAN



3.0 INFRASTRUCTURE (30%)

» 3.1 Layer 2

- 3.1.a Troubleshoot static and dynamic 802.1q trunking protocols
- 3.1.b Troubleshoot static and dynamic EtherChannels
- 3.1.c Configure and verify common Spanning Tree Protocols (RSTP, MST) and Spanning Tree enhancements such as root guard and BPDU guard


» 3.2 Layer 3

- 3.2.a Compare routing concepts of EIGRP and OSPF (advanced distance vector vs. link state, load balancing, path selection, path operations, metrics, and area types)
- 3.2.b Configure simple OSPFv2/v3 environments, including multiple normal areas, summarization, and filtering (neighbor adjacency, point-to-point, and broadcast network types, and passive-interface)
- 3.2.c Configure and verify eBGP between directly connected neighbors (best path selection algorithm and neighbor relationships)
- 3.2.d Describe policy-based routing



» 3.3 Wireless

- 3.3.a Describe Layer 1 concepts, such as RF power, RSSI, SNR, interference, noise, bands, channels, and wireless client devices capabilities
- 3.3.b Describe AP modes and antenna types
- 3.3.c Describe access point discovery and join process (discovery algorithms, WLC selection process)
- 3.3.d Describe the main principles and use cases for Layer 2 and Layer 3 roaming
- 3.3.e Troubleshoot WLAN configuration and wireless client connectivity issues using GUI only
- 3.3.f Describe wireless segmentation with groups, profiles, and tags



Network

» 3.4 IP Services

- 3.4.a Interpret network time protocol configurations such as NTP and PTP
- 3.4.b Configure NAT/PAT
- 3.4.c Configure first hop redundancy protocols, such as HSRP, VRRP
- 3.4.d Describe multicast protocols, such as RPF check, PIM and IGMP v2/v3

4.0 NETWORK ASSURANCE (10%)

- 4.1 Diagnose network problems using tools such as debugs, conditional debugs, traceroute, ping, SNMP, and syslog
- 4.2 Configure and verify Flexible NetFlow
- 4.3 Configure SPAN/RSPAN/ERSPAN



- 4.4 Configure and verify IPSLA
- 4.5 Describe Cisco DNA Center workflows to apply network configuration, monitoring, and management
- 4.6 Configure and verify NETCONF and RESTCONF

5.0 SECURITY (20%)

➤ 5.1 Configure and verify device access control

- 5.1.a Lines and local user authentication
- 5.1.b Authentication and authorization using AAA

➤ 5.2 Configure and verify infrastructure security features

- 5.2.a ACLs
- 5.2.b CoPP



➤ 5.3 Describe REST API security

➤ 5.4 Configure and verify wireless security features

- 5.4.a 802.1X
- 5.4.b WebAuth
- 5.4.c PSK
- 5.4.d EAPOL (4-way handshake)

► 5.5 Describe the components of network security design

- 5.5.a Threat defense
- 5.5.b Endpoint security
- 5.5.c Next-generation firewall
- 5.5.d TrustSec and MACsec
- 5.5.e Network access control with 802.1X, MAB, and WebAuth



6.0 AUTOMATION (10%)

- 6.1 Interpret basic Python components and scripts
- 6.2 Construct valid JSON-encoded files
- 6.3 Describe the high-level principles and benefits of a data modeling language, such as YANG
- 6.4 Describe APIs for Cisco DNA Center and vManage



- **6.5 Interpret REST API response codes and results in payload using Cisco DNA Center and RESTCONF**



- **6.6 Construct an EEM applet to automate configuration, troubleshooting, or data collection**
- **6.7 Compare agent vs. agentless orchestration tools, such as Chef, Puppet, Ansible, and SaltStack**








CCIE HUB

Thank You

ENROLL NOW

TALK TO US :

-  +91 96502 72078
-  +91 70111 33431
-  info@cciehub.in