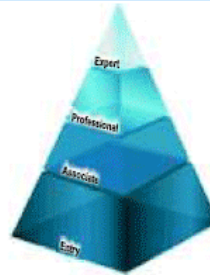


CISCO (CCNA)

The widely respected IT certification programs available through Cisco Career Certifications bring valuable, measurable rewards to network professionals, their managers, and the organizations that employ them.

Four Levels of IT Certification

Cisco offer four levels of general IT certification: Entry, Associate, Professional, and Expert (CCIE representing the highest level of achievement).



CCNA Certification

Cisco Certified Network Associate (CCNA) validates the ability to install, configure, operate, and troubleshoot medium-size route and switched networks, including implementation and verification of connections to remote sites in a WAN. CCNA curriculum includes basic mitigation of security threats, introduction to wireless networking concepts and terminology, and performance-based skills. This new curriculum also includes (but is not limited to) the use of these protocols: IP, Enhanced Interior Gateway Routing Protocol (EIGRP), Serial Line Interface Protocol Frame Relay, Routing Information Protocol Version 2 (RIPv2), VLANs, Ethernet, access control lists (ACLs).

COURSE CONTENTS:

The OSI Reference Model (7 Layer)

- Data Link & Network Address
- Connection Oriented & Connection Less Services
- Token Ring, Bridge, VLAN Router
- MAC Address
- ARP (Address Resolution Protocol)
- Networking Technologies & Ethernet

Internetworking Operation System

- Logging into a Router in both User & Privileged modes
- Flash Memory, Network, Interfaces
- CISCO IOC Command for Router Startup.
- Authentication Servers
- Entering Commands, Configuring Routers
- Understanding Router Elements
- RAM, ROM
- CISCO Discovery Products (CDP)

Understanding & Configuring TCP/IP

- IP Address, Subnetting
- Static Name Mapping
- TCP/IP Overview, TCP/IP Services
- Internet Control Message Protocol
- Host-Name to IP Address Mapping
- Remote Access using TelNet

Routing

- Routing Protocol Basics
- Distance Vector Protocols RIP, IGRP
- Implementing Standard IP Access Lists
- Multi Protocol Routing (MRP)
- Link State Protocols EIGRP, OSPF
- Deny Tel Net Request to host on your Network
- Routing Problems
- CISCO Hierarchical Design CIDR, Net

Managing Traffic with Access List

- Standard Access list
- Extended Access List
- Monitoring Access List

LAN Switching

- Bridging & LAN Switching
- Collision & Broadcast Domains, Segmentation
- Gigabit Ethernet, Switching Architecture
- Ethernet, Fast Ethernet, Full Duplex
- Spanning Tree Protocol (802. 19)
- Cut Through, Store & Forward
- VLAN, VTP ISL (802. 10)
- VLAN Pruning, Inter VLAN

VAN Protocols

- Circuit Switching & Packet Switching
- Integrated Service Digital Networking (ISDN)
- Channel Service Unit / Data Service Unit (CSU / DSU)
- HDLC & Point-to-Point Protocol
- Dial on Demand Routing
- Frame Relay, PVC, SVC.

Wireless Networks

- Describe Standards Associated with Wireless Media (including: IEEE Wi-Fi Alliance, ITU/FCC)
- Identify & Describe the Purpose of the Components in a Small Wireless Network (including: SSID, BSS, ESS)
- Identify the basic parameters to configure on a Wireless Network and Ensure that Devices are connected to Correct Access Point.
- Compare & Contrast Wireless Security Features and Capabilities of WPA common issues with implementing Wireless Networks (including: Interface, Miss configuration)

VPN (Virtual Private Network)

- Introduction to VPN
- VPN Connectivity
- VPN Protocols

CISCO CERTIFIED NETWORK PROFESSIONAL (CCNP)

CCNP certification validates a network professional's ability to install, configure and troubleshoot converged local and wide area networks with 100 to 500 or more nodes. Network Professionals who achieve the CCNP have demonstrated the knowledge and skills required to manage the routers and switches that form the network core, as well as edge applications that integrate voice, wireless, and security into the network.

As per the new curriculum the course modules are:

1. **The Building Scalable Cisco Internetworks (BSCI 642-901)** - is a qualifying exam for the Cisco Certified Network Professional CCNP®, Cisco Certified Design Professional CCDP®, and Cisco Certified Internetwork Professional CCIP™ certifications. The BSCI 642-901 exam will certify that the successful candidate has important knowledge and skills necessary to use advanced IP addressing and routing in implementing scalability for Cisco ISR routers connected to LANs and WANs. The exam covers topics on Advanced IP Addressing, Routing Principles, Multicast Routing, IPv6, Manipulating Routing Updates, Configuring basic BGP, Configuring EIGRP, OSPF, and IS-IS.
2. **The Building Converged Cisco Multilayer Switched Networks (BCMSN 642-812)** - is a qualifying exam for the Cisco Certified Network Professional CCNP® and the Cisco Certified Design Professional CCDP® certifications. The BCMSN 642-812 exam will certify that the successful candidate has important knowledge and skills necessary to implement scalable multilayer switched networks. The exam includes topics on Campus Networks, describing and implementing advanced Spanning Tree concepts, VLANs and Inter-VLAN routing, High Availability, Wireless Client Access, Access Layer Voice concepts, and minimizing service Loss and Data Theft in a Campus Network.
3. **The Implementing Secure Converged Wide Area Networks (ISCW 642-825)** - is a qualifying exam for the Cisco Certified Network Professional CCNP®. The ISCW 642-825 exam will certify that the successful candidate has important knowledge and skills necessary to secure and expand the reach of an enterprise network to teleworkers and remote sites with focus on securing remote access and VPN client configuration. The exam covers topics on Cisco hierarchical network model as it pertains to the WAN, teleworker configuration and access, frame mode MPLS, site-to-site IPSEC VPN, Cisco EZVPN, strategies used to mitigate network attacks, Cisco device hardening and IOS firewall features.
4. **The Optimizing Converged Cisco Networks (642-845 ONT)** is a qualifying exam for the Cisco Certified Network Professional CCNP®. The ONT 642-845 exam will certify that the successful candidate has important knowledge and skills in optimizing and providing effective QoS techniques for converged networks. The exam topics include implementing a VoIP network, implementing QoS on converged networks, specific IP QoS mechanisms for implementing the DiffServ QoS model, AutoQoS, wireless security and basic wireless management.