



# GCTC

Global Computer Training Center

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## Cisco Certified Network Professional (CCNP) Certification

The CCNP Certification course prepares a network professional to install, configure, implement, and troubleshoot converged local and wide area networks with 100 to 500 or more nodes. Candidates who achieve the CCNP certification have demonstrated the knowledge and skills required to manage the routers and switches forming the network core, as well as edge applications integrating voice, wireless, and security into the network.

**Course Highlights** This course is preparation for the four exams required for CCNP Certification, which include the following.

**642-901: Building Scalable Cisco Internetworks (BSCI) v3.0** Building Enterprise level router networks and applications. Integrates Advanced Technologies.

Student learns how to create an efficient and expandable enterprise network by installing, configuring, monitoring, and troubleshooting network infrastructure equipment (especially routers such as Cisco ISRs) according to the Campus Infrastructure module in the Enterprise Composite Network model. The routed network includes the most commonly used and emerging IP routing protocols.

Framework

- Introduction: Routing in an Enterprise Network
- EIGRP configuration
- OSPF configuration
- The IS-IS Protocol
- Manipulating routing updates
- Implementing BGP
- Multicast transmission implementation
- Implementing the basics of IPv6

**642-812: Building Cisco Multilayer Switched Networks (BCMSN) v3.0** Building Enterprise level switched networks and applications. Integrate Advance Technologies such as VoIP and Wireless.

Students learn how to create an efficient and expandable enterprise network by installing, configuring, monitoring, and troubleshooting network infrastructure equipment (especially Catalyst Multilayer Switches) in the Enterprise Composite Network model.

Framework

- Introduction: Various networks
- Definition of Virtual Networks (VLANs)
- Implementing Spanning Tree Protocol
- InterVLAN routing
- High availability in a network environment
- Wireless client access
- Minimizing service loss and data theft in a network
- Configuring switches to support voice

**642-825: Implementing Secure Converged Wide Area Networks (ISCW) v1.0** Focuses on securing remote access and VPN client configuration. Students will be able to secure and expand the reach of their enterprise network to teleworkers and remote sites.

After successfully completing this module student will be able to explain the Cisco hierarchical network model as it pertains to the WAN, describe and implement teleworker configuration and access; implement and verify frame mode MPLS; describe and configure a site-to-site IPSEC VPN; describe and configure Cisco EZVPN; explain strategies used to mitigate network attacks; describe and configure Cisco device hardening; and describe and configure IOS firewall features.

Framework

- Describe network requirements
- Connect teleworks
- Implement frame mode MPLS
- IPsec VPNs
- Cisco device hardening
- Cisco IOS Threat Defense features

**642-845: Optimizing Converged Cisco Networks (ONT)** Focuses on skills in optimizing and providing effective QoS techniques in converged networks operating voice, wireless, and security applications.

After successfully completion of this module the student will be able to explain the Cisco hierarchical network model as it pertains to an end-to-end enterprise network; describe specific requirements for implementing a VOIP network; describe the need to implement QoS and methods QoS implementation on a converged network using Cisco's routers and Catalyst Switches, explain the key IP QoS mechanisms used to implement the DiffServ QoS model; configure Auto QoS for Enterprise; and describe and configure wireless security and basic wireless management.

Framework

- Describe network requirements
- Describe Cisco VoIP implementations
- IP QoS: An Introduction
- Implementing DiffServ QoS model
- Implementing AutoQoS
- Wireless security

***Duration*** The CCNP Certification course can be completed in 160 hours or 14 weeks.

***Who can attend this course?*** The CCNP Certification course is open to CCNA certified candidates who want to advance their skills in routing and switching.

***Certification Requirements*** CCNP Certification requires that applicant pass four (4) exams: BSCI, BCMSN, ISWC and ONT. These exams can be taken at any Prometric or VUE Testing Center. Associate and Professional level 642 Exam certifications are valid for three years.

***Job Prospects*** CCNP certified individual qualifies for jobs such as Senior Network Administrator, Level 2 Support Engineer, Level 2 Systems Engineer, Network Technician, and Deployment Engineer