



Skill Set Alignment CCNP1 through CCNP4

The following skill set for CCNP lists the competencies that students learn during these courses. These courses help prepare students for the Cisco Systems CCNP certification exam. Employers, Academies, and students may use this document to communicate current knowledge, or to identify skills demonstrated at a work setting. Another valuable use of this information is as a list of proficiencies expected through work experience.

Name of Business/Employer

Name of Student

Street Address

Street Address

City State Zip

City State Zip

Phone

Phone

Employment Supervisor's Name and Position

Skill Set – CCNP

The CCNP certification indicates knowledge of networking for the small office, home office (SOHO) market and enterprise markets, and the ability to work in businesses or organizations with networks that have between 100 and 500 nodes. A CCNP certified individual should be able to perform the following tasks:

- Implement appropriate technologies to build a scalable routed network
- Build campus networks using multiplayer switching technologies
- Improve traffic flow, reliability, redundancy, and performance for campus LANs, routed and switched WANs, and remote access networks
- Create and deploy a global intranet
- Troubleshoot an environment that uses Cisco routers and switches for multi-protocol client hosts and services
- Perform entry-level tasks in the planning, design, installation, operation, and troubleshooting of Ethernet and TCP/IP networks

CCNP 1: Advanced Routing

CCNP 1: Advanced Routing is the first of four courses leading to the Cisco Certified Network Professional (CCNP) certification. CCNP 1 introduces Cisco Networking Academy Program students to scaling IP networks. Students will learn to use VLSM, private addressing, and NAT to optimize the use of IP addresses.

The majority of the course content is related to learning how to implement the RIPv2, EIGRP, OSPF, IS-IS, and BGP routing protocols. In addition, the course details the important techniques used for route filtering and route redirection. Students will develop skills in the following areas:

- Internetwork scalability
- Advanced IP addressing techniques
- Routing protocol operation, configuration, and troubleshooting
- RIPv2, EIGRP, OSPF, IS-IS, and BGP
- Route optimization

CCNP 2: Remote Access

CCNP 2: Remote Access is the second of four courses leading to the Cisco Certified Network Professional (CCNP) certification. CCNP 2 introduces students to the implementation of Cisco routers in WAN applications. The course focuses on the proper selection and implementation of the Cisco IOS services required to build intranet remote access links. Students will develop skills with the specific WAN technologies of analog dialup, ISDN BRI and PRI, Frame Relay, broadband, and VPN. This hands-on, lab-oriented course stresses the design, implementation, operation, and Level 1 troubleshooting of common WAN connectivity options. Students will develop skills in the following areas:

- WANs
- Modems and asynchronous connections
- PPP and serial connections
- ISDN BRI, PRI, and DDR
- Frame relay configuration and traffic shaping
- WAN backup, managing, and optimizing traffic
- NAT and AAA
- Broadband connections
- VPNs

CCNP 3 - Multilayer Switching

CCNP 3: Multilayer Switching is the third of four courses leading to the Cisco Certified Network Professional (CCNP) designation. CCNP 3 teaches students about the deployment of state-of-the-art campus LANs. The course focuses on the selection and implementation of the appropriate Cisco IOS services to build reliable, scalable multilayer-switched LANs. Students will develop skills in the following areas:

- Campus networks and design models
- VLANs and VTP
- STP

- InterVLAN Routing
- Multilayer switching
- Redundancy
- AVVID
- QoS
- Security
- Transparent LAN services

CCNP 4: Network Troubleshooting

CCNP 4: Network Troubleshooting is the last of four courses leading to the Cisco Certified Network Professional (CCNP) certification. CCNP 4 teaches students about troubleshooting network problems. The course focuses on documenting and baselining a network, troubleshooting methodologies and tools, and Layers 1 to 7 troubleshooting. Students will develop skills in the following areas:

- Documenting and baselining the network
- Troubleshooting methodologies and tools
- Layer 1-7 troubleshooting

Employer-specific Skills

Copyright © 2003 Cisco Systems, Inc. All rights reserved. Cisco, Cisco IOS, Cisco Systems, and the Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries. All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0108R)