
Cisco CCNA Routing and Switching Boot Camp (CCNAX - Accelerated)

Duration: 5 Days **Course Code: CCNABC** **Version: 3.0**

Overview:

Our accelerated CCNA Bootcamp is an intensive program designed to teach learners how to install, operate, configure and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, connecting to a WAN, and identifying basic security threats. Labs are core to understanding the concepts taught and students will have 120 hours of lab access accessible over a 180 day period (This includes the time in class) ensuring students are able to perform basic troubleshooting steps in an enterprise branch office network. This is an ideal course for students looking to achieve CCNA Routing and Switching Certification.

This course is worth 30 Credits in the Continuing Education Program

Target Audience:

Pre-sales and post-sales network engineers involved in the installation and support of enterprise branch office networks.

Objectives:

- **After you complete this course you should be able to:**
 - Install, operate and troubleshoot a medium-sized network, including connecting to a WAN and implementing network security.
 - Describe the effects of new technologies such as IoE, IoT, IWAN and SDN on network evolution.
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Prerequisites:

Attendees should meet the following prerequisites:

- Basic Windows navigation and keyboard literacy skills
- Basic Internet usage skills
- Basic IP addressing knowledge

Testing and Certification

Recommended preparation for exam(s):

- **200-125 - CCNA** Cisco Certified Network Associate Routing and Switching
- The exam voucher is included in the course cost.
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Follow-on-Courses:

The following Courses are recommended for further study:

- **ROUTE** - Implementing Cisco IP Routing
 - **SWITCH** - Implementing Cisco Switched Networks
 - **TSHOOT** - Troubleshooting and Maintaining Cisco IP Networks
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Content:

Building a Simple Network

- Exploring the Functions of Networking
- Understanding the Host-to-Host Communications Model
- Introducing LANs
- Operating Cisco IOS Software
- Starting a Switch
- Understanding Ethernet and Switch Operation
- Troubleshooting Common Switch Media Issues

Establishing Internet Connectivity

- Understanding the TCP/IP Internet Layer
- Understanding IP Addressing and Subnets
- Understanding the TCP/IP Transport Layer
- Exploring the Functions of Routing
- Configuring a Cisco Router
- Exploring the Packet Delivery Process
- Enabling Static Routing
- Learnin Basics of ACL
- Enabling Internet Connectivity

Summary Challenge

- Establish Internet Connectivity
- Troubleshoot Internet Connectivity
- Troubleshooting a Medium-Sized Network
- Troubleshooting a Scalable Medium-Sized Network
- Troubleshooting Scalable Multitarea Network
- Implementing and Troubleshooting a Scaleable Multiarea Network

Implementing Scalable Medium-Sized Networks

- Implementing and Troubleshooting VLANs and Trunks
- Building Redundant and Switched Topologies
- Improving Redundant Switched Topologies with EtherChannel
- Routing Between VLANs
- Using a Cisco IOS Network Device as a DHCP Server
- Understanding Layer 3 Redundancy
- Implementing RIPv2

Introducing IPv6

- Introducing Basic IPv6
- Understanding IPv6 Operation
- Configuring IPv6 Static Routes

Troubleshooting Basic Connectivity

- Troubleshooting IPv4 Network Connectivity
- Troubleshooting IPv6 Network Connectivity

Implementing Network Device Security

- Securing Administrative Access
- Implementing Device Hardening
- Implementing Advance Security

Implementing an EIGRP-Based Solution

- Implementing EIGRP
- Implementing EIGRP for IPv6
- Troubleshooting EIGRP

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Implementing a Scalable OSPF-Based Solution

- Understanding OSPF
- Multiarea OSPF IPv4 Implementation
- Implementing OSPFv3 for IPv6

Implementing Wide Area Networks

- Understanding WAN Technologies
- Understanding Point-to-Point Protocols
- Configuring GRE Tunnels
- Configuring Single-Homed EBGp

Network Device Management

- Implementing Basic Network Device Management
- Evolution of Intelligent Networks
- Introducing QoS
- Managing Cisco Devices
- Licensing

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Discovery Labs

- Discovery 1: Get Started with Cisco CLI
- Discovery 2: Perform Basic Switch Configuration
- Discovery 3: Observe How a Switch Operates
- Discovery 4: Troubleshoot Switch Media and Port Issues
- Discovery 5: Inspect TCP/IP Applications
- Discovery 6: Start with Cisco Router Configuration
- Discovery 7: Configure Cisco Discovery Protocol
- Discovery 8: Configure Default Gateway
- Discovery 9: Exploration of Packet Forwarding
- Discovery 10: Configure and Verify Static Routes
- Discovery 11: Configure and Verify ACLs
- Discovery 12: Configure a Provider-Assigned IP Address
- Discovery 13: Configure Static NAT
- Discovery 14: Configure Dynamic NAT and PAT
- Discovery 15: Troubleshoot NAT
- Discovery 16: Configure VLAN and Trunks
- Discovery 17: Troubleshoot VLANs and Trunks
- Discovery 18: Configure Root Bridge and Analyze STP Topology
- Discovery 19: Troubleshoot STP Issues
- Discovery 20: Configure and Verify EtherChannel
- Discovery 21: Configure a Router on a Stick

- Discovery 22: Configure a Cisco Router as a DHCP Server
- Discovery 23: Troubleshoot DHCP Issues
- Discovery 24: Configure and Verify HSRP
- Discovery 25: Troubleshoot HSRP
- Discovery 26: Configure and Verify RIPv2
- Discovery 27: Troubleshoot RIPv2
- Discovery 28: Configure Basic IPv6 Connectivity
- Discovery 29: Configure IPv6 Static Routes
- Discovery 30: Use Troubleshooting Tools
- Discovery 31: Configure SPAN
- Discovery 32: Configure and Verify IPv4 Extended Access Lists
- Discovery 33: Troubleshoot IPv4 Network Connectivity
- Discovery 34: Configure and Verify IPv6 Extended Access Lists
- Discovery 35: Troubleshoot IPv6 Network Connectivity
- Discovery 36: Enhance Security of Initial Configuration
- Discovery 37: Limit Remote Access Connectivity
- Discovery 38: Configure and Verify Port Security
- Discovery 39: Configure and Verify NTP
- Discovery 40: Configure External Authentication Using RADIUS and TACACS+
- Discovery 41: Configure and Verify EIGRP
- Discovery 42: Configure and Verify EIGRP for IPv6
- Discovery 43: Troubleshoot EIGRP
- Discovery 44: Configure and Verify Single-Area OSPF
- Discovery 45: Configure and Verify Multiarea OSPF
- Discovery 46: Configure and Verify OSPFv3
- Discovery 47: Troubleshoot Multiarea OSPF
- Discovery 48: Configure Serial Interface and PPP
- Discovery 49: Configure and Verify MLP
- Discovery 50: Configure and Verify PPPoE Client
- Discovery 51: Configure and Verify GRE Tunnel
- Discovery 52: Configure and Verify Single Homed EBGP
- Discovery 53: Configure Syslog
- Discovery 54: Configure SNMP

Challenge Labs

- Challenge 1: Summary Challenge Lab: 1
- Challenge 2: Summary Challenge Lab: 2
- Challenge 3: Implementing RIPv2
- Challenge 4: Implement IPv6 Static Routing
- Challenge 5: Troubleshooting IPv4 Connectivity
- Challenge 6: Troubleshooting IPv6 Connectivity

- Challenge 7: Securing Device Administrative Access
- Challenge 8: Implementing Device Hardening
- Challenge 9: Troubleshooting EIGRP
- Challenge 10: Summary Challenge Lab: 3
- Challenge 11: Summary Challenge Lab: 4
- Challenge 12: Troubleshooting OSPF
- Challenge 13: Implementing Single-Homed EBGp
- Challenge 14: Summary Challenge Lab: 5
- Challenge 15: Summary Challenge Lab: 6

Additional Information:

Recertification :

CCNA certifications are valid for three years. To recertify, pass ONE of the following before the certification expiration date: Pass the current ICND2 exam, or Pass the current CCNA exam, or Pass the current CCDA DESGN exam, or Pass any current CCNA Concentration exam (Data Center, Wireless, Security, Voice, Video, Service Provider, or Service Provider Operations), or Pass any current 642-XXX Professional-level exam, or Pass any current Cisco Specialist exam (excluding Sales Specialist exams or MeetingPlace Specialist exams, Implementing Cisco TelePresence Installations (ITI) exams, Cisco Leading Virtual Classroom Instruction exams, or any 650 online exams), or Pass any current CCIE Written Exam, or Pass the current CCDE Written Exam OR current CCDE Practical Exam, or Pass the Cisco Certified Architect (CCAr) interview AND the CCAr board review to extend lower certifications

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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