

Cisco CCNA Routing and Switching Boot Camp

Duration: 5 Days **Course Code: CCNABC** **Version: 2.0**

Overview:

Our accelerated CCNA Boot Camp is an intensive program, designed to help you achieve your CCNA Routing and Switching certification in a reduced period of time. To maximize your classroom experience and ensure that you get a comprehensive coverage of the CCNA Routing and Switching materials, our three-step, blended learning approach to the CCNA Boot Camp consists of: Pre-Class Activity, Classroom Instruction and Post-Class Lab Practice.

The Pre-Class Activity provides you with approximately ten hours of review materials and exercises, including a pre-test assessment, all of which is designed to give you a firm foundation and get you focused before you enter the classroom.

Classroom Instruction includes intensive instructor-led training and hands-on labs, students will learn how to install, operate, configure, and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, identifying basic security threats, understanding redundant topologies, troubleshooting common network issues, connecting to a WAN, configuring EIGRP and OSPF in both IPv4 and IPv6, understanding wide-area network technologies, and getting familiar with device management and Cisco licensing. You will have 24-hour lab access during the course.

Following the course you will be provided with ten e-Lab credits, which can be used for additional Lab Practice allowing you to hone your skills using the same hands-on lab equipment you used in the classroom.

Please note this Boot Camp is scheduled to run from 09:30 to 19:00. Exact timings may vary.

Target Audience:

Individuals seeking the Cisco CCNA Routing and Switching certification. The course is also appropriate for pre-sales and post-sales network engineers involved in the installation and support of enterprise branch office networks.

Objectives:

- Describe network fundamentals and build simple LANs
- Establish Internet connectivity
- Manage network device security
- Describe IPv6 basics
- Troubleshoot VLAN issues, explain how STP works, configure EtherChannel, and understand the idea
- behind Layer 3 redundancy
- Troubleshoot IP connectivity
- Define the characteristics, functions, and components of a WAN
- Configure and troubleshoot EIGRP in an IPv4 environment, and configure EIGRP for IPv6
- Configure, verify, and troubleshoot multi-area OSPF
- Describe SNMP, syslog and NetFlow, and manage Cisco device configurations, IOS images, and licenses

Prerequisites:

Attendees should meet the following prerequisites before attending out CCNA Routing and Switching Boot Camp:

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

Testing and Certification

Recommended preparation for exam(s):

- **200-120 - CCNA** Cisco Certified Network Associate Routing and Switching

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
-

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
- Managing Traffic Using ACLs
- Enabling Internet Connectivity

Managing Network Device Security

- Securing Administrative Access
- Implementing Device Hardening
- Implementing Traffic Filtering with ACLs

Introducing IPv6

- Introducing Basic IPv6
- Understanding IPv6
- Configuring IPv6 Routing

Building a Medium-Sized Network

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

Troubleshooting Basic Connectivity

- Troubleshooting IPv4 Network Connectivity
- Troubleshooting IPv6 Network Connectivity

Wide Area Networks

- Understanding WAN Technologies
- Configuring Serial Encapsulation
- Establishing a WAN Connection Using Frame Relay
- Introducing VPN Solutions
- Configuring GRE Tunnels

Implementing an EIGRP-Based Solution

- Implementing EIGRP
- Troubleshooting EIGRP
- Implementing EIGRP for IPv6

Implementing a Scalable OSPF-Based Solution

- Implementing OSPF
- Multiarea OSPF IPv4 Implementation
- Troubleshooting Multiarea OSPF
- Examining OSPFv3

Network Device Management

- Configuring Network Devices to Support Network Management Protocols
- Managing Cisco Devices
- Licensing

Labs

- Lab 1-1: Performing Switch Startup and Initial Configuration
- Lab 1-2: Troubleshooting Switch Media Issues
- Lab 2-1: Performing Initial Router Setup and Configuration
- Lab 2-2: Connecting to the Internet
- Lab 3-1: Enhancing the Security of the Initial Configuration
- Lab 3-2: Device Hardening
- Lab 3-3: Filtering Traffic with ACLs
- Lab 4-1: Configure and Verify Basic IPv6
- Lab 4-2: Configure and Verify Stateless Autoconfiguration
- Lab 4-3: Configure and Verify IPv6 Routing
- Lab 5-1: Configuring Expanded Switched Networks
- Lab 5-2: Configuring DHCP Server
- Lab 5-3: Troubleshooting VLANs and Trunks
- Lab 5-4: Optimizing STP
- Lab 5-5: Configuring EtherChannel
- Lab 6-1: Troubleshooting IP Connectivity
- Lab 7-1: Configuring and Troubleshooting a Serial Connection
- Lab 7-2: Establishing a Frame Relay WAN
- Lab 7-3: Establishing a GRE Tunnel
- Lab 8-1: Implementing EIGRP
- Lab 8-2: Troubleshooting EIGRP
- Lab 8-3: Implementing EIGRP for IPv6
- Lab 9-1: Implementing OSPF
- Lab 9-2: Configuring Multiarea OSPF
- Lab 9-3: Troubleshooting Multiarea OSPF
- Lab 9-4: Configuring OSPF for IPv6
- Lab 10-1: SNMP and Syslog Basic Configuration
- Lab 10-2: Analyzing NetFlow Data
- Lab 10-3: Managing Cisco Devices and Licensing

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 353-1-814 8200

info@globalknowledge.ie

www.globalknowledge.ie

Global Knowledge, 3rd Floor Jervis House, Millennium Walkway, Dublin 1