# CISCO CERTIFIED NETWORK ASSOCIATE Implementing and Administering Cisco Solutions v1.0.1



#### Our Learning Exclusive

- Custom exam prep software and materials
- Exam delivery in classroom with 98% success
- Course specific thin Otank® Learning publications to promote fun exciting learning
- Extended hours of training including immersive hands-on exercises
- WE DO NOT "TEACH THE TEST" We always deliver valuable hands-on experience
- Receive all reading material and study guides when you register
- All courses taught by CCIE expert instructors

#### Course Duration

- Five days of instructor-led learning
- Three days of self-paced learning
- 60% lecture, 40% hands-on labs

#### Prerequisites

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills
- Basic IP address knowledge

#### Target Audience

- Those looking to earn their CCNA Certification
- Support technicians who install, operate and verify Cisco network solutions
- Those looking to prepare for their CCNP Certification
- Entry-level network engineer, administrator, network support technician, help desk technician

#### **Exam Information**

 200-301 – Implementing and Administering Cisco Solutions v1.0

#### **Delivery Methods**

- Instructor-Led Training
- Immersive Live-Online Training
- On-Site and Custom Delivery

#### Exclusive Tools and Learning Package

- Comprehensive video training package
- 100s of pre-built labs for continued practice and learning
- Custom Linux builds for LAN penetration testing

#### Course Overview

thin Otank® Learning offering a unique eight-day training camp comprised of five days of instructor-led instruction and three days of self-study that teaches learners how to install, operate, configure, and verify basic IPv4 and IPv6 networks, including configuring networking components, switches, routers, and wireless LAN controllers; managing network devices and identifying basic security threats. As with all of our Cisco Training Experiences – exams are delivered in the classroom.

Cisco designed the new CCNA program to prepare learners for today's associate-level job roles in IT technologies. CCNA now includes security and automation and programmability. This program has one certification that covers a broad range of fundamentals for IT careers, with one exam and one training course to help learners prepare.

Newly retooled for the latest technologies and job roles, the CCNA training course and exam give learners the foundation needed to take their career in any direction. CCNA certification covers a breadth of topics, including:

- Network fundamentals
- Network access
- IP connectivity
- IP services
- Security fundamentals
- Automation and programmability

### **Course Objectives**

- Identify the components of a computer network and explain their basic characteristics
- Describe the features and functions of the Cisco IOS Software
- Explain IPv4 and IPv6 addressing scheme
- Implement basic configurations on a Cisco router
- Identify and resolve common switching and routing networking issues
- Describe network and device architectures and explain virtualization
- Describe the smart network management solutions like Cisco DNA Center, SD-Access and SD-WAN
- Outline threat defense technologies
- And many, many more aspects of a basic IPv4 and IPv6 network



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#### **CCNA Course Modules**

## 1

- Exploring the functions of networking
- Introduction to Host-to-Host Communication Model
- Operating Cisco IOS Software
- Introducing LANs
- Exploring the TCP/IP Link Layer

2

- Starting a switch
- Introducing the TCP/IP Internet Layer, IPv4 addressing and subnets
- Explaining the TCP/IP Transport Layer and application layer
- Exploring the functions of routing
- Configuring a Cisco router

3

- Exploring the Packet Delivery Process
- Troubleshooting a simple network
- Introducing basic IPv6
- Configuring static routing
- Implementing VLANs and trunks

4

- Routing between VLANs
- Introducing OSPF
- Improving redundant switched topologies with EtherChannel
- Explaining basics of ACL
- Enabling Internet connectivity

5

- Explaining the evolution of intelligent networks
- Introducing system monitoring
- Managing Cisco devices
- Securing administrative access
- Implementing device hardening

S E

- Building redundant switch topologies
- Exploring layer 3 redundancy
- Introducing WAN technologies
- Introducing QoS
- Explaining wireless fundamentals
- Introducing architectures and virtualization
- Examining the security threat landscape
- Implementing threat defense technologies

### **CCNA Labs and Demonstrations**

- Discovery 1: Get Started with Cisco CLI
- Discovery 2: Observe how a switch operates
- Discovery 3: Perform basic switch configuration
- Discovery 4: Inspect TCP/IP Applications
- Discovery 5: Configure an interface on a Cisco router
- Discovery 6: Configure and verify Layer 2 discovery protocols
- Discovery 7: Configure default gateway
- Discovery 8: Explore packet forwarding
- Discovery 9: Troubleshoot switch media and port issues
- Discovery 10: Troubleshoot port duplex issues
- Discovery 11: Configure basic IPv6 connectivity
- Discovery 12: Configure and verify IPv4 static routes
- Discovery 13: Configure IPv6 static routes
- Discovery 14: Configure VLAN and trunk
- Discovery 15: Configure a router on a stick
- Discovery 16: Configure and verify single area OSPF
- Discovery 17: Configure and verify EtherChannel
- Discovery 18: Configure and verify IPv4 ACLs
- Discovery 19: Configure a provider assigned IPv4 address
- Discovery 20: Configure static NAT
- Discovery 21: Configure dynamic NAT and PAT
- Discovery 22: Log in to the WLC
- Discovery 23: Monitor the WLC
- Discovery 24: Configure a dynamic (VLAN) interface
- Discovery 25: Configure a DHCP server
- Discovery 26: Configure a WLAN
- Discovery 27: Define a RADIUS server
- Discovery 28: Explore management options
- Discovery 29: Explore the Cisco DNA Center
- Discovery 30: Configure and verify NTP
- Discovery 31: Create the Cisco IOS image backup
- Discovery 32: Upgrade Cisco IOS image
- Discovery 33: Configure WLAN using WPA2 PSK using the GUI
- Discovery 34: Secure console and remote access
- Discovery 35: Enable and limit remote access connectivity
- Discovery 36: Configure and verify port security





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