## CISCO CCNA

## Cisco Interconnecting Cisco Network Devices, Part 2 (ICND2) v3.0

#### 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

- Three days of instructor-led training
- 40% lecture, 60% hands-on labs

#### **Prerequisites**

- Basic computer skills, operating systems familiarity, and basic Internet knowledge
- A basic understanding of computer networking principles
- No Cisco CLI experience is required but some basic knowledge is recommended
- ICND1 Interconnecting Cisco Network Devices, Part 1

#### **Target Audience**

- Individuals seeking the Cisco CCNA Routing and Switching certification
- Entry-level Network Engineer
- Network Administrator
- Network Support Technician
- Help Desk Technician

#### **Exam Information**

 200-105 – Interconnecting Cisco Networking Devices Part 2 (ICND2) v3.0

### **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 three-day training camp in which students can receive the highly sought after CCNA certification in three days. As with all of our Cisco Training Experiences – exams are delivered in the classroom.

The Interconnecting Cisco Networking Devices, Part 2 (ICND2) v3.0 course provides students with the knowledge and skills needed to install, configure, operate, and troubleshoot a small enterprise network. You learn to perform fundamental skills including Quality of Service (QoS) elements and understanding their applicability, how virtualized and cloud services interact and impact enterprise networks and, you will cover an overview of network programmability and the related controller types and tools that are available to support software defined network architectures.

In this course, students will learn how to install, configure, operate, and troubleshoot a small enterprise network.

Key additions to this latest revision include; understanding of Quality of Service (QoS) elements and their applicability, how virtualized and cloud services will interact and impact enterprise networks, along with an overview of network programmability, and the related controller types and tools that are available to support software defined network architectures.

- Prepare for the CCNA Routing and Switching certification
- Operate a medium-sized LAN with multiple switches, supporting VLANs, trunking, and spanning tree
- Develop core routing and switching networking skills to configure, monitor, and troubleshoot Cisco networks for increased effectiveness and optimal performance within SMB and Enterprise settings
- Understand how device management can be implemented using the traditional and intelligent ways
- Support Cisco network deployments and maintain these services in an ongoing operational network

## **Course Objectives**

- Operate a medium-sized LAN with multiple switches, supporting VLANs, trunking, and spanning tree
- Troubleshoot IP connectivity
- Describe how to configure and troubleshoot EIGRP in an IPv4 environment, and configure EIGRP for IPv6
- Configure and troubleshoot OSPF in an IPv4 environment and configure OSPF for IPv6
- Define characteristics, functions, and components of a WAN
- Describe how device management can be implemented using the traditional and intelligent ways.



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#### ICND2 Course Modules

- 1 Implementing Scalable Medium-Sized Networks =
  - VLAN connectivity troubleshooting
  - Redundant switched topologies
  - Spanning-tree operation
  - Link aggregation using EtherChannel
  - Layer 3 redundancy protocols
  - HSRP and FHRP configuration and verification
- 2 Troubleshooting Basic Connectivity
  - IPv4 network connectivity troubleshooting
  - Guidelines for IPv4 vs IPv6
  - IPv6 network connectivity troubleshooting
- 3 Implementing an EIGRP-Based Solution
  - EIGRP features, path selection and composite metric
  - EIGRP for IPv6
  - EIGRP common issues and detection
- 4 Implement a Scalable OSPF-Based Solution
  - OSPF components
  - Multiarea OSPF implementation
  - OSPFv<sub>3</sub> for IPv<sub>6</sub> configuration and verification
  - Multiarea OSPF troubleshooting
- 5 Wide-Area Networks
  - WAN topology and connectivity options
  - Point-to-point protocols and configuration
  - GRE tunnels
  - EBGP configuration and verification
- 6 Network Device Management
  - Common access layer threat mitigation techniques
  - Simple Network Management Protocol (SNMP)
  - APIC-EM and IWAN
  - Cloud computing
  - QoS mechanisms

#### ICND<sub>2</sub> Labs and Demonstrations

- Troubleshooting VLANs and Trunks
- Configuring Root Bridge and Analyze STP Topology
- Troubleshooting STP Issues
- Building Redundant Switched Topologies
- Configuring and Verifying EtherChannel
- Improving Redundant Switched Topologies with EtherChannel
- Configuring and Verifying HSRP
- Troubleshooting HSRP
- Implementing and Troubleshooting HSRP
- Configuring and Verifying IPv4 Extended Access Lists
- Troubleshooting IPv4 Network Connectivity
- Troubleshooting IPv4 Connectivity
- Configuring and Verifying IPv6 Extended Access Lists
- Troubleshooting IPv6 Network Connectivity
- Troubleshooting IPv6 Connectivity
- Configuring and Verifying EIGRP
- Implementing EIGRP
- Configuring and Verifying EIGRP for IPv6
- Configuring and Verifying Single-Area OSPF
- Configuring and Verifying Multiarea OSPF
- Implementing Multiarea OSPF
- Configuring and Verifying OSPFv3
- Implementing OSPFv3 for IPv6
- Troubleshooting Multiarea OSPF
- Troubleshooting OSPF
- Configuring Serial Interface and PPP
- Configuring and Verifying MLP
- Configuring and Verifying PPPoE Client
- Implementing WAN Using Point-to-Point Protocols
- Configuring and Verifying GRE Tunnel
- Implementing GRE Tunnel
- Configuring and Verifying Single Homed EBGP
- Implementing Single-Homed EBGP



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