ENTFNDU - CISCO ENTERPRISE NETWORKING FOUNDATIONS

Course Code: 100874

Gain the foundational knowledge necessary to help support Cisco routers and prepares you for the CCNA-Implementing and Administering Cisco Solutions v1.0 and CCT Routing & Switching certification.

CCNA-Foundations teaches professionals how to support a basic IPv4 and IPv6 Cisco network. You will learn the fundamentals of network components, such as a switches and routers. You will also gain skills with IPv4 subnetting; IPv6 addressing; Wide Area Networking concepts; and basics of managing and accessing Cisco routers and switches.

Who should take this course?
This course is recommended for those pursuing their Cisco Certified Technician (CCT) certification for Routing & Switching. This course is ideal for those wanting to prepare themselves for the new CCNA course and certification who may be newer to the industry.

The CCT certification is for the entry-level IT professionals, building skills required for onsite support and maintenance of Cisco routers, switches, and operating environments. You can build a foundation for a broad spectrum of IT careers with the CCT.

What You'll Learn

- Identify the components of a computer network and describe their basic characteristics
- Describe the features and functions of the Cisco IOS Software
- Describe LANs and the role of switches within LANs
- Describe Ethernet as the network access layer of TCP/IP and describe the operation of switches
- Install a switch and perform the initial configuration
- Explain how STP and RSTP work
- Describe and identify different Cisco hardware and operating systems including IOS, IOS-XE, IOS-XR and NX-OS
- Describe the TCP/IP internet Layer, IPv4, its addressing scheme, and subnetting
- Describe the TCP/IP Transport layer and Application layer

- Explore functions of routing
- Implement basic configuration on a Cisco router
- Explain host-to-host communications across switches and routers
- Identify and resolve common switched network issues and common problems associated with IPv4 Addressing
- Describe IPv6 main features, addresses and configure and verify basic IPv6 connectivity
- Describe, implement and verify VLANs and trunks
- Describe the application and configuration of inter-VLAN routing
- Explain the basics of dynamic routing protocols and describe components and terms of OSPF
- Describe basic WAN and VPN concepts
- Describe the management of Cisco devices

Who Needs to Attend

Target candidates for this course include individuals seeking the CCT R&S – Cisco Certified Technician for Routing & Switching and progressing towards the CCNA – Cisco Certified Network Associate certification. The course is also appropriate for support technicians who are involved in the basic installation, operation, and verification of Cisco networks. Key job roles include entry-level network engineer, network administrator, network support technician, and help desk technician.

You should consider this course if you wish to perform the following job tasks:

- **Support:** onsite support and maintenance of Cisco routers, switches, and operating environments.
- **Verify:** Use the appropriate show commands and applications to ensure that the solution was correctly implemented and is performing as desired.

Prerequisites

The knowledge and skills that students are expected to have before attending this course are:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic internet usage skills

There are no formal prerequisites for CCT certification, but you should have an understanding of the exam topics before taking the exam.

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CLASSROOM LIVE	$4,800 CAD	5 Day

Classroom Live Outline

Simple Network

Section 1: Exploring the Functions of Networking
Section 2: Introducing the Host-To-Host Communications Model
Section 3: Operating Cisco IOS Software
Section 4: Introducing LANs
Section 5: Exploring the TCP/IP Link Layer
Section 6: Starting a Switch
Section 7: Building Redundant Switched Topologies
Section 8: Troubleshooting a Simple Network
Section 9: Cisco Hardware

Establishing Internet Connectivity

Section 10: Introducing the TCP/IP Internet Layer, IPv4 Addressing, and Subnets
Section 11: Explaining the TCP/IP Transport Layer and Application Layer
Section 12: Exploring the Functions of Routing
Section 13: Configuring a Cisco Router
Section 14: Exploring the Packet Delivery Process

Introducing IPv6

Section 15: Introducing Basic IPv6
Section 16: Configuring Static Routing
Section 17: Enabling Internet Connectivity

Medium-Sized Network

Section 18: Implementing VLANs and Trunks
Section 19: Routing Between VLANs

Classroom Live Labs

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

Paper Lab – IP Subnetting

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 Static NAT
Discovery 17: Configure Dynamic NAT and PAT
Discovery 18: Configure and Verify NTP
Discovery 19: Create the Cisco IOS Image Backup
Discovery 20: Upgrade Cisco IOS Image
Discovery 21: Secure Console and Remote Access
Discovery 22: Enable and Limit Remote Access Connectivity

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VIRTUAL CLASSROOM LIVE	$4,800 CAD	5 Day

Virtual Classroom Live Outline

Simple Network

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Section 4: Introducing LANs
Section 5: Exploring the TCP/IP Link Layer
Section 6: Starting a Switch
Section 7: Building Redundant Switched Topologies
Section 8: Troubleshooting a Simple Network
Section 9: Cisco Hardware

Establishing Internet Connectivity

Section 10: Introducing the TCP/IP Internet Layer, IPv4 Addressing, and Subnets
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Introducing IPv6

Section 15: Introducing Basic IPv6
Section 16: Configuring Static Routing
Section 17: Enabling Internet Connectivity

Medium-Sized Network

Section 18: Implementing VLANs and Trunks
Section 19: Routing Between VLANs

Section 20: Introducing WAN Technologies
Section 21: Introducing System Monitoring
Section 22: Managing Cisco Devices
Section 23: Securing Administrative Access

Virtual Classroom Live Labs

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

Paper Lab – IP Subnetting

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PRIVATE GROUP TRAINING	5 Day

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