Introduction to Cisco Network Devices pt1

Duration: 5 Days      Course Code: ICND1      Version: 2.0      Delivery Method: Company Event

Overview:
This course focuses on providing the skills and knowledge required 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. At the end of this course students should be able to complete the configuration, implementation and troubleshooting of a small branch network under supervision.

Company Events
These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:
This course is intended for network engineers and administrators who will install, operate and troubleshoot a small branch office Enterprise network. This is an entry level course and is ideal for those individuals new to networking and looking to start their Cisco Career Certification accreditation.

Objectives:
- After you complete this course you will be able to:
  - Describe network fundamentals and build simple LANs
  - Establish Internet connectivity
  - Manage network device security
  - Expand small- to medium-sized networks with WAN connectivity
  - Describe IPv6 basics

Prerequisites:
Attendees should meet the following prerequisites:
- Basic Windows navigation and keyboard literacy skills
- Basic Internet usage skills
- Basic IP addressing knowledge
- GK3150 - Understanding Networking Fundamentals

Testing and Certification
Recommended preparation for exam(s):
- 100-101 - ICND1 Introduction to Cisco Network Devices Part 1 OR
- 200-120 - CCNA - This is a composite exam consisting of both ICND1 & ICND2
Note: Passing the ICND1 exam (100-101) results in the award of the Cisco Certified Entry Network Technician (CCENT) certification. Students taking the composite exam will only be awarded the CCNA Routing and Switching Certification, they will not be awarded the CCENT certification.
Follow-on-Courses:

The following courses are recommended for further study:

- **ICND2** - Interconnecting Cisco Network Devices Part 2 - Required to gain CCNA Routing and Switching Certification
- **IINS** - Implementing Cisco IOS Network Security - Required to gain CCNA Security Certification.
- **IUWNE** - Implementing Unified Wireless Networking Essentials - Required to gain CCNA Wireless Certification.
- **ICOMM** - Introducing Cisco Voice and Unified Communications Administration - Required to gain CCNA Voice Certification.
- **SSPO** - Supporting Cisco Service Provider IP NGN Operations - Required to gain CCNA SP Ops Certification.
Building a Simple Network

- 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
- 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
- Implementing Device Hardening
- Implementing Traffic Filtering with ACLs
- Routing between VLANs
- Using a Cisco Network Device as a DHCP Server
- Introducing WAN Technologies
- Introducing Dynamic Routing Protocols
- Implementing OSPF
- Understanding IPv6
- Configuring IPv6 Routing
- Lab 1-2: Troubleshooting Switch Media Issues
- Lab 2-1: Performing Initial Router Setup and Configuration
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- Exploring the Functions of Networking
- Understanding IP Addressing and Subnets
- Understanding the TCP/IP Transport Layer
- Troubleshooting Common Switch Media Issues
- Understanding IP Addressing and Subnets

Labs:

- Lab 1-1: Performing Switch Startup and Initial Configuration
- Lab 2-1: Performing Initial Router Setup and Configuration
- Lab 2-2: Connecting to the Internet
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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
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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
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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
Implementing Device Hardening
Implementing Traffic Filtering with ACLs
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Using a Cisco Network Device as a DHCP Server
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Additional Information:

Recertification
CCENT certifications are valid for three years. To recertify, pass either the ICND1 or ICND2 exam, or pass the current CCNA Routing and Switching exam, or pass a CCNA Concentration exam (wireless, security, voice), or pass any 642-XXX professional level or Cisco Specialist exam (excluding Sales Specialist exams), or pass a current CCIE or CCDE written exam.

Further Information:

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