

## **Interconnecting Cisco Network Devices Pt 1**

**Duration:** 5 Days

**Course Code:** ICND1

### **Overview:**

As well as having industry leading trainers, Cisco course material and cutting edge virtual labs, Future People Training has also introduced real world equipment into classrooms, to enhance the delegate learning experience.

The additional equipment allows the delegate to test out lab practical's in a safe environment, interconnect devices, diagnose faults and importantly practice cable repair / production before they get "on the job!"

This course focuses on providing the skills and knowledge necessary to install, operate, and troubleshoot a small branch office

Enterprise network, including configuring a switch, a router, and connecting to a WAN and implementing network security. A Student should be able to complete configuration and implementation of a small branch office network under supervision.

### **Target Audience:**

This course is intended for System Engineers who will install, operate and troubleshoot a small branch office Enterprise network.

### **Objectives:**

- Describe how networks function, identifying major components, function of network components and the Open System Interconnection (OSI) reference model
- Using the host-host packet delivery process, describe issues related to increasing traffic on an Ethernet LAN and identify switched LAN technology solutions to Ethernet networking issues
- Describe the reasons for extending the reach of a LAN and the methods that can be used with a focus on RF wireless access
- Describe the reasons for connecting networks with routers and how routed networks transmit data through networks using TCP/IP
- Describe the function of Wide Area Networks (WANs), the major devices of WANs, and configure PPP encapsulation, static and dynamic routing, PAT and RIP routing
- Use the command-line interface to discover neighbours on the network and managing the router's start-up and configuration

### **Prerequisites:**

Delegates are expected to have a good working knowledge of computers and a basic idea of the OSI networking model, before attending his course. This is recommended but not essential.

### **Testing and Certification:**

100 - 105 ICND1

200 - 125 CCNA – This is a composite exam consisting of Both ICND1 & ICND2

Note: passing the ICND1 (100 - 105) exam results in the award of the Cisco Entry Network Technician (CCENT) Certification

### **Follow-on-Courses:**

The following courses are recommended for further study:  
ICND2 – Interconnecting Cisco Network Devices Pt2

### **Content:**

#### **Building a Simple Network:**

- Exploring the Functions of Networking
- Securing the Network
- Understanding the Host-to-Host Communications Mode
- Understanding TCP/IP's Transport Layer
- Understanding TCP/IP's Internet Layer
- Exploring the Packet Delivery Process
- Understanding Ethernet
- Connecting to an Ethernet LAN

#### **Ethernet Local Area Networks (LAN's)**

- Understanding the challenges of Shared LANs
- Solving Network Challenges with Switched LAN Technology
- Exploring the Packet Delivery Process
- Operating Cisco IOS Software
- Starting a Switch
- Understanding Switch Security
- Maximising the Benefits of Switching
- Exploring Wireless Networking
- Understanding WLAN Security
- Implementing a WLAN

### Local Area Network Connections

- Exploring the Functions of Routing
- Understanding Binary Basics
- Constructing a Network Addressing Scheme
- Starting a Router
- Configuring a Router
- Exploring the Packet Delivery Process
- Understanding Router Security
- Understanding Cisco Router and Security Device Manager
- Using a Router as a DHCP Server
- Accessing Remote Devices

### Wide Area Networks (WANs)

- Understanding WAN Technologies
- Enabling the Internet Connection
- Enabling Static Routing
- Configuring Serial Encapsulation
- Configuring Serial Encapsulation

### Network Environment Management

- Discovering neighbours on the network
- Managing Router Start-up and Configuration
- Managing Cisco Devices

### Further Information:

For more information or to book your course please feel free to contact us.

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