

Course ID
C-CCNA

Course Duration
4 days

Related Courses

Course Title
Configuring and Administering Cisco Networking Devices

- Cisco Routing Protocols : Configuration and Maintenance (C-ROUTING, 4 days)

Aimed At

I/T professionals who're seeking employment as network administrators for LAN/WAN projects using Cisco technologies, or those already in those areas who wish to upgrade their job skills.

Group Size

5-15

Prerequisites

- Some prior I/T experience and familiarity with networking concepts

Course in a Nutshell

Are you a network administrator in the Cisco LAN/WAN environment looking to upgrade your job skills or apply for certification? Or are you preparing to seek employment in this field? Either way, this course can provide the help you need.

The course provides in-depth coverage of Cisco networking fundamentals including the OSI model, TCP/IP architecture and protocol, IP addressing, Cisco switches and routers, and WAN technologies and protocols. You will not only learn the key WAN/LAN concepts but also how to configure and troubleshoot devices and networks. This course will equip you with the knowledge and skills necessary to successfully configure and maintain networks that employ Cisco technologies and equipment.

Customize It!

Customize this course to your specific background and job requirements at little-to-no additional cost. We'll tailor the topics included in the course, emphasis each topic receives, pace of coverage, and the hands-on exercises to suit your needs. If you have an interest in a particular area, let us know, so we can be sure to address it.

Learn How To

- Describe the OSI model and the TCP/IP protocol
- Configure IP addresses and subnets
- Configure Cisco switches and VLANs
- Configure the Cisco routers
- Plan, configure, and troubleshoot routing protocols: RIP, IGRP
- Plan, configure, and troubleshoot frame-relay, PPP, and other WAN technologies

Course Outline

- The OSI Model
 - The need for a common networking model
 - The various layers of the OSI model

- The data-link, networking, and transport layers investigated more closely
- Mapping different networking devices to different layers of OSI
- The TCP/IP Protocol
 - TCP/IP architecture
 - Differences and similarities with the OSI model
 - IP protocol and addresses and subnetting
 - ARP and ICMP protocols
 - TCP and UDP protocols structure, and ports
 - Upper-layer protocols
- Configuring a Catalyst Switch for Basic Operations
 - What a layer-2 switch does
 - Switches and MAC-addresses
 - Collision and Broadcast domains, and how they impact switches
 - VLAN: Basic functionality and configuration
 - Configuring default-gateways for switches
- Configure Cisco Routers
 - The IOS operating system
 - The CDP protocol
 - Different types of router interfaces
 - Configuring IP addresses on router interfaces
- Configuring Routing Protocols and Access Lists
 - Configuring RIP and IGRP
 - Routing and metrics in path-determination
 - What are Access Lists?
 - Configuring Access Lists and implementing them on interfaces
 - Analyzing networking scenarios involving Access Lists
- Configuring WAN Technologies and Protocols
 - Configuring serial links
 - Evaluate and configure PPP, HDLC
 - Configuring frame-relay
 - ISDN technology

How You Will Learn

- An experienced I/T professional will teach this class in workshop (interactive lecture/lab) format.
- Hands-on exercises will help you understand each topic and make a bridge from theory to application.
- The instructor will offer real-life examples, applications, and case studies to enrich the class and drive home the essential points.
- You'll learn dos and don'ts, both the tricks of the trade as well as the hidden pitfalls.
- The Participant Handbooks will provide you with a structure to which you can add information and insight provided in real-time, turning it into a valuable reference resource you can take back to your job.

Revised

Oct. 27, 2005