+1 (219) 764-3800

6210 Central Ave, Portage IN

sales@ctclc.com

www.ctclc.com

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WHERE GREAT TRAINING HAPPENS EVERYDAY!

IPv6 Fundamentals, Design, and Deployment (IP6FD) V4.1

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The **IPv6 Fundamentals, Design, and Deployment (IP6FD) v4.1** is a five-day training that provides individuals with the knowledge and skills needed to implement and configure the IP version 6 (IPv6) features of Cisco IOS Software. The training also provides an overview of IPv6 technologies; covers IPv6 design and implementation; describes IPv6 operations, addressing, routing, services, and transition; and describes deployment of IPv6 in enterprise networks as well as in service provider networks. The training also includes case studies that are useful for deployment scenarios and remote labs. .

How you'll benefit

This class will help you:

- Learn how to successfully configure the IP version 6 features of Cisco IOS Software
- Gain leading-edge skills for high-demand responsibilities in the enterprise sector
- Earn 40 CE credits toward recertification

Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The primary audience for this course is as follows:

- Network Engineers

OUTLINE

Module 1: Introduction to IPv6
- Explaining the Rationale for IPv6
- Evaluating IPv6 Features and Benefits
- Understanding Market Drivers

Module 2: IPv6 Operations
- Understanding the IPv6 Addressing Architecture
- Describing the IPv6 Header Format
- Enabling IPv6 on Hosts
- Enabling IPv6 on Cisco Routers
- Using ICMPv6 and Neighbor Discovery
- Troubleshooting IPv6

Course Duration
5 days
Course Price
$4,295.00 or 43 CLCs
Methods of Delivery
- Instructor Led
- Virtual ILT
- On-Site

Current Technologies CLC   Configuring and Administering Cisco WEBEX

Module 3: IPv6 Services
- IPv6 Mobility
- Describing DNS in an IPv6 Environment
- Understanding DHCPv6 Operations
- Understanding QoS Support in an IPv6 Environment
- Using Cisco IOS Software Features

Module 4: IPv6-Enabled Routing Protocols
- Routing with RIPng
- Examining OSPFv3
- Examining Integrated IS-IS
- Examining EIGRP for IPv6
- Understanding MP-BGP
- Configuring IPv6 Policy-Based Routing
- Configuring FHRP for IPv6
- Configuring Route Redistribution

Module 5: Troubleshooting IPv6 and IPv6 Protocols

Module 6: IPv6 Multicast Services
- Implementing Multicast in an IPv6 Network
- Using IPv6 MLD

Module 7: IPv6 Transition Mechanisms
- Implementing Dual-Stack
- Describing IPv6 Tunneling Mechanisms

Module 8: IPv6 Security
- Configuring IPv6 ACLs
- Using IPsec, IKE, and VPNs
- Discussing Security Issues in an IPv6 Transition Environment
- Understanding IPv6 Security Practices
- Configuring Cisco IOS Firewall for IPv6

Module 9: Deploying IPv6
- Examining IPv6 Address Allocation
- Understanding the IPv6 Multihoming Issue
- Identifying IPv6 Enterprise Deployment Strategies
- Identifying IPv6 Service Provider Deployment
- Understanding Support for IPv6 in MPLS
- Understanding 6VPE
- Understanding IPv6 Broadband Access Services

Module 10: IPv6 Case Studies
- Planning and Implementing IPv6 in Enterprise Networks
- Planning and Implementing IPv6 in Service Provider Networks
- Planning and Implementing IPv6 in Branch Networks

LAB OUTLINE

- **Lab 1: Enabling IPv6 on Hosts**
- **Lab 2: Using Neighbor Discovery**
- **Lab 3: Using Prefix Delegation**
- **Lab 4: Routing with OSPFv3**
- **Lab 5: Routing with IS-IS**
- **Lab 6: Routing with EIGRP**
- **Lab 7: Routing with BGP and MP-BGP**
- **Lab 8: Multicasting**
- **Lab 9: Implementing Tunnels for IPv6**
- **Lab 10: Configuring Advanced ACLs**
- **Lab 11: Implementing IPsec and IKE**
- **Lab 12: Configuring Cisco IOS Firewall**
- **Lab 13: Configuring 6PE and 6VPE**