

# IP6FD

## IPv6 Fundamentals, Design and Deployment

The goal of this course is to prepare the learner for transitioning to IPv6 based networks. IP6FD encompasses design considerations, security considerations, configuration principles, configuring IOS devices for IPv6 and IPv6 transition mechanisms. Throughout the course students will be presented justification for the principles, concepts and practices contained in each lesson. This course will help network engineers understand, configure, and support Cisco devices running IOS software and covers the IPv6 routing protocols such as RIPng, OSPF, BGP, and IS-IS; IPv6 transition mechanisms including tunnels, ISATAP, NAT-PT, and 6to4; and other features. The design and deployment components present in depth coverage of IPv6 design and deployment for DNS, DHCP, integrating IPv6 in an IPv4 network, Multicast, and much more.

### Course Contents

- Explaining the Rationale for IPv6
- Evaluating IPv6 Features and Benefits
- Understanding Market Drivers
- 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
- IPv6 Mobility
- Describing DNS in an IPv6 Environment
- Understanding DHCPv6 Operations
- Understanding QoS Support in an IPv6 Environment
- Using Cisco IOS Software Features
- 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
- Implementing Multicast in an IPv6 Network
- Using IPv6 MLD
- Implementing Dual-Stack
- Describing IPv6 Tunneling Mechanisms
- 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
- 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
- Planning and Implementing IPv6 in Enterprise Networks
- Planning and Implementing IPv6 in Service Provider Networks
- Planning and Implementing IPv6 in Branch Networks

**E-Book** You will receive the original course documentation from Cisco in English language as a Cisco E-Book.

### Prerequisites

A good working knowledge of IPv4 protocols and Cisco routers is required.

### This Course in the Web



You can find the up-to-date information and options for ordering under the following link:

[www.experteach-training.com/go/CVFD](http://www.experteach-training.com/go/CVFD)

### Reservation

On our Website, you can reserve a course seat for 7 days free of charge and in a non-committal manner. This can also be done by phone under +49 6074/4868-0.

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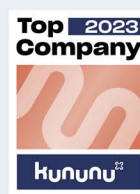
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