

IPv6 Fundamentals, Design, and Deployment (CPLL-IP6FD)

Duration: 180 Days

The IPv6 Fundamentals, Design, and Deployment (IP6FD) learning path 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.

This training also earns you 40 Continuing Education (CE) credits toward recertification.

Skills You'll Learn:

- Describe the factors that led to the development of IPv6 and the possible uses of this new IP structure.
- Describe the structure of the IPv6 address format, how IPv6 interacts with data link layer technologies, and how IPv6 is supported in Cisco IOS Software.
- Describe the nature of changes to the Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP) to support IPv6, and how networks can be renumbered using both services.
- Understand the updates to IPv4 routing protocols needed to support IPv6 topologies.
- Understand multicast concepts and IPv6 multicast specifics.
- Describe IPv6 transition mechanisms and which methods will be most effective in your network.
- Describe security issues, how security for IPv6 is different than for IPv4, and emerging practices for IPv6-enabled networks.
- Describe the standards bodies that define IPv6 address allocation, as well as one of the leading IPv6 deployment issues, multihoming.
- Describe the deployment strategies that service providers are facing when deploying IPv6.
- Describe case studies for enterprise, service provider, branch, and access networks.

Learning Path Objectives:

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