

# Understanding Cisco Service Provider Network Foundations (SPFNDU)

**ID** SPFNDU **Price** US \$ 4,500.—(excl. tax) **Duration** 5 days

This is a Cisco Learning Services course and is delivered directly by Cisco.

## Course Overview

The **Understanding Cisco Service Provider Network Foundations (SPFNDU)** training is designed to provide you with the foundational knowledge for the suite of Cisco® Certified Network Professional (CCNP®) Service Provider trainings. The training expands what you learned from the Cisco CCNA® training with a focus on theoretical and practical knowledge needed for the service provider environment. You will learn about architectures, protocols, software and hardware platforms, and solutions within the service provider realm.

## How You'll Benefit

This training will help you:

- Acquire the foundational knowledge to understand the Cisco Service Provider Network methodologies, tools, and functions
- Learn the skills to manage the software and hardware platforms, structures, and protocols within the service provider realm
- Qualify for professional-level job service provider roles
- Earn 30 CE credits towards recertification

## Who should attend

This course is designed for network and software engineers and hold job roles such as:

- Network administrator
- Network engineer
- Network manager
- System engineer
- Project manager
- Network designer

## Prerequisites

There are no formal prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Knowledge of IPv4 and IPv6 Transmission Control Protocol/Internet Protocol (TCP/IP) networking
- Familiarity with a typical service provider environment
- Basic knowledge about networking devices and their roles

These skills can be found in the following Cisco Learning Offering:

- [Implementing and Administering Cisco Solutions \(CCNA\) v2.1](#)

## Course Objectives

After taking this course, you should be able to:

- Describe network architectures, devices, and software used by service providers
- Describe the various internet governance organizations, their roles, and tools available for governance information verification
- Configure Cisco Internetwork Operating System (Cisco IOS®) and Cisco IOS XE routers
- Describe Cisco IOS XR software, perform initial configuration, and explain platform daily tasks
- Describe various access and core technologies used by service providers
- Describe various major switching technologies used by service providers
- Describe major overlay technologies and their usage, and configure Virtual Extensible LAN (VxLAN)
- Describe various major routing protocols used by service providers
- Configure Layer 3 services used by service providers
- Describe multiprotocol label switching (MPLS), components, protocols, and MPLS usage

- Describe usage of various services used and maintained by service providers
- Introduce Linux networking, Bourne-Again SHell (BASH) scripting, and their usage within Cisco IOS XR software

### **Detailed Course Outline**

- Introducing Service Provider Architectures
- Describing Internet Governance Organizations
- Configuring the Cisco IOS and Cisco IOS XE Router
- Configuring Cisco IOS XR Router
- Introducing Access and Core Technologies in Service Provider Environment
- Introducing Routing Technologies in Service Provider Environment
- Describing MPLS
- Implementing Layer 3 Services
- Introducing Switching Technologies in the Service Provider Environment
- Introducing Overlay Technologies
- Implementing Service Provider Services
- Introducing Programmability on Cisco IOS XR Routers

# About Fast Lane



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