
Understanding Cisco Service Provider Network Foundations (SPFNDU) V1.1

***WHERE GREAT TRAINING
HAPPENS EVERYDAY!***



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Course Duration

5 Days

Course Price

\$4,495.00

45 CLCs

Methods of Delivery

In-Person ILT

Virtual ILT

Onsite ILT

About this Class

The Understanding Cisco Service Provider Network Foundations (SPFNDU) v1.1 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.



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How you will benefit

This class 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

Why Attend with Current Technologies CLC

- Our Instructors are 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 job roles best suited to the material in this course are:

- Network Administrator
- Network Engineer
- Network Manager
- System Engineer
- Project Manager
- Network Designer

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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

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Course Outline

Module 1: Introducing Service Provider Architectures

Module 2: Describing Internet Governance Organizations

Module 3: Configuring the Cisco IOS and Cisco IOS XE Router

Module 4: Configuring Cisco IOS XR Router

Module 5: Introducing Access and Core Technologies in the Service Provider Environment

Module 6: Introducing Routing Technologies in the Service Provider Environment

Module 7: Describing MPLS

Module 8: Implementing Layer 3 Services

Module 9: Introducing Switching Technologies in the Service Provider Environment

Module 10: Introducing Overlay Technologies

Module 11: Implementing Service Provider Services

Module 12: Introducing Programmability on Cisco IOS XR Routers

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Lab Outline

- Lab 1: Review Lab Environment
- Lab 2: Examine Governance Data
- Lab 3: Perform an Initial Cisco Internetworking Operating System (IOS XE) Configuration
- Lab 4: Configure Connectivity and Connectivity Verification on Cisco IOS XE Devices
- Lab 5: Perform Initial Cisco IOS XR Configuration
- Lab 6: Configure and Verify Connectivity on Cisco IOS XR
- Lab 7: Configure Intermediate System to Intermediate System (IS-IS)
- Lab 8: Configure Routing Information Protocol (RIPv2) and RIP extension (RIPng)
- Lab 9: Configure Basic Border Gateway Protocol (BGP)
- Lab 10: Configure MPLS
- Lab 11: Configure Internet Protocol Service Level Agreement (IP SLA)
- Lab 12: Configure Hot Standby Router Protocol (HSRP) with Object Tracking
- Lab 13: Configure Virtual Routing and Forwarding (VRFs)
- Lab 14: Configure Network Time Protocol (NTP)
- Lab 15: Use Linux Command Line Interface (CLI)
- Lab 16: Configure IOS XR Using a Bash Script