

Understanding Cisco Service Provider Network Foundations (SPFNDU)

COURSE OVERVIEW:

The Understanding Cisco Service Provider Network Foundations (SPFNDU) v1.0 course is designed to provide you with the foundational knowledge for the suite of Cisco® CCNP® Service Provider courses. The course expands what you learned from the Cisco CCNA® course with a focus on the theoretical and practical knowledge needed for the Service Provider environment. Through a combination of lessons and hands-on practice, you will learn about architectures, protocols, software and hardware platforms, and solutions within the Service Provider realm. While this course does not lead directly to a certification exam, it does cover foundational knowledge critical to the success in the Service Provider Technology track.

This course 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

WHO WILL BENEFIT FROM THIS COURSE?

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:

Before taking this course, you should have the following knowledge and skills:

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

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 I (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

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 the Service Provider Environment
- Introducing Routing Technologies in the 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

SUNSET LEARNING INSTITUTE (SLI) DIFFERENTIATORS:

Sunset Learning Institute (SLI) has been an innovative leader in developing and delivering authorized technical training since 1996. Our goal is to help our customers optimize their cloud technology investments by providing convenient, high quality technical training that our customers can rely on. We empower students to master their desired technologies for their unique environments.

What sets SLI apart is not only our immense selection of trainings options, but our convenient and consistent delivery system. No matter how complex your environment is or where you are located, SLI is sure to have a training solution that you can count on!

Premiere World Class Instruction Team

- All SLI instructors have a four-year technical degree, instructor level certifications and field consulting work experience.
- Sunset Learning has won numerous Instructor Excellence and Instructor Quality Distinction awards since 2012

Enhanced Learning Experience

- The goal of our instructors during class is ensure students understand the material, guide them through our labs and encourage questions and interactive discussions.

Convenient and Reliable Training Experience

- You have the option to attend classes at any of our established training facilities or from the convenience of your home or office with the use of our HD-ILT network (High Definition Instructor Led Training)
- All Sunset Learning Institute classes are guaranteed to run – you can count on us to deliver the training you need when you need it!

Outstanding Customer Service

- Dedicated account manager to suggest the optimal learning path for you and your team
- Enthusiastic Student Services team available to answer any questions and ensure a quality training experience