Understanding Cisco Service Provider Network Foundations Training

Duration: **5 Day**

BILGINC IT Academy
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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

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)

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What You Will Learn

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

Training 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