SPFNDU (UNDERSTANDING CISCO SERVICE PROVIDER NETWORK FOUNDATIONS) 1.0

Objetivo

After taking this course, you should be able to: â□¢ Describe network architectures, devices, and software used by service providers; â□¢ Describe the various Internet governance organizations, their roles, and tools available for governance information verification; â□¢ Configure Cisco Internetwork Operating System (Cisco IOSÂ®) and Cisco IOS XE routers; â□¢ Describe Cisco IOS XR software, perform initial configuration, and explain platform daily tasks; â□¢ Describe various access and core technologies used by service providers; â□¢ Describe various major switching technologies used by service providers; â□¢ Describe major overlay technologies and their usage, and configure Virtual Extensible LAN I (VxLAN); â□¢ Describe various major routing protocols used by service providers; â□¢ Configure Layer 3 services used by service providers; â□¢ Describe Multiprotocol Label Switching (MPLS), components, protocols, and MPLS usage; â□¢ Describe usage of various services used and maintained by service providers; â□¢ Introduce Linux networking, Bourne Again Shell (BASH) scripting, and their usage within Cisco IOS XR software.

PÃºblico Alvo

This course is designed for network and software engineers and hold job roles such as: â□¢ Network administrator â□¢ Network engineer â□¢ Network manager â□¢ System engineer â□¢ Project manager â□¢ Network designer

PrÃ©-Requisitos

Before taking this course, you should have the following knowledge and skills: â□¢ Knowledge of IPv4 and IPv6 Transmission Control Protocol/Internet Protocol (TCP/IP) networking; â□¢ Familiarity with typical service provider environment; â□¢ Basic knowledge about networking devices and their roles.

Carga HorÃ¡ria

40 horas (5 dias).

ConteÃºdo ProgramÃ¡tico

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

Lab outline

Review Lab Environment
Examine Governance Data
Perform an Initial Cisco Internetworking Operating System (IOS XE) Configuration
Configure Connectivity and Connectivity Verification on Cisco IOS XE Devices
Perform Initial Cisco IOS XR Configuration
Configure and Verify Connectivity on Cisco IOS XR
Configure Intermediate System to Intermediate System (IS-IS)
Configure Routing Information Protocol (RIPv2) and RIP extension (RIPng)
Configure Basic Border Gateway Protocol (BGP)
Configure MPLS
Configure Internet Protocol Service Level Agreement (IP SLA)
Configure Hot Standby Router Protocol (HSRP) with Object Tracking
Configure Virtual Routing and Forwarding (VRFs)
Configure Network Time Protocol (NTP)
Use Linux Command Line Interface
Configure IOS XR Using a Bash Script