CCNP Service Provider Boot Camp (CS-CCNP-SP)

Modality: Virtual Classroom

Duration: 14 Days

CLC: 100 Units

About this course:

The certification of CCNP Service Provider - Cisco Certified Network Professional Service Provider is for service provider systems engineers, network engineers, and network experts who are liable for conveying a versatile carrier-grade foundation equipped for a quick extension to help continuing presentation of new oversaw administrations and other client necessities.

This boot camp incorporates vouchers of the exam and sets you up for the below tests:

1. 642-883 SPROUTE
2. 642-889 SPEDGE
3. 642-887 SPCORE
4. 642-885 SPADVROUTE

Salary Estimate:

The normal compensation for the Engineer of a Cisco Certified Professional Network is $97,000 every year.

This boot camp incorporates below courses:

1. SPADVROUTE 1.2 - Deploying Cisco Service Provider Advanced Network Routing
2. SPROUTE 1.2 - Deploying Cisco Service Provider Network Routing

Course Objectives:

At the time of this course completion, students will be able to:

1. Describe the technologies of VPN that are utilized in the environment of the service provider and the peer-to-peer architecture of MPLS VPN.
2. Describe how the VPN model of MPLS Layer 3 can be utilized to implement Internet access and managed services.
3. Describe the steps for implementation that are expected to give MPLS Layer 3 VPN service in the network of a service provider
4. Describe Ethernet services and Layer 2 VPNs.
5. Define the solutions of MPLS for interdomain and IPv6 communication.
6. Explain MPLS features, and how MPLS labels are distributed and assigned.
7. Present the idea of QoS and define the need to execute QoS
8. Talk about the necessity for traffic engineering in the latest networks that must accomplish the ideal utilization of resources.
9. Mark and Classify network traffic to execute a policy of administrative requiring QoS
10. Introduce traffic shaping and policing concept, including a dual token bucket, token bucket, and dual-rate policing.
11. Introduce several queuing mechanisms of Cisco QoS used to manage congestion of the network
12. Identify the requirements of typical routing and list the protocols of routing in service provider networks
13. Explain the importance of the routing protocol of integrated IS-IS for internal routing and list the steps in executing Integrated IS-IS into the network service provider.
14. Explain the steps required to execute OSPF in the network of a service provider.
15. Execute BGP to link an endeavor to a service provider, and a service provider to an upstream supplier of services
16. Configure the supplier system to help numerous BGP links with clients and different autonomous frameworks.
17. Describe instruments utilized for route redistribution, routing protocol manipulation, and BGP route selection.
18. Describe common addressing and routing scalability issues in the network of the provider.
19. Explain service provider IPv6 progress executions.
20. Introduce the technologies that are present in IP multicasting and IP multicast services
21. Describe available BGP features and tools and to protect and optimize the routing protocol of BGP in the environment of a service provider.
22. Present PIM-SM as the most present multicast routing protocol of scalable IP.

Targeted Audience:

This course is designed for:

Network engineers, network administrators, systems engineers, and network managers

Prerequisites:

Valid Cisco CCIP, or Valid Cisco CCNA Service Provider, or Any Cisco CCIE certification

Course Outline:

CS-SPROUTE

- **Module 1: Service Provider Routing**
- **Module 2: Implement OSPF in the Service Provider Network**
- **Module 3: Implement Integrated IS-IS in the Service Provider Network**
- **Module 4: Implement BGP in the Service Provider Network**
- **Module 5: Routing Protocol Tools and Route Manipulation**

CS-SPADVROUTE

- **Module 1: Service Provider Connectivity with BGP**
- **Module 2: Scale Service Provider Network**
- **Module 3: Secure and Optimize BGP**
- **Module 4: Multicast Overview**
- **Module 5: Intradomain and Interdomain Multicast Routing**
- **Module 6: Service Provider IPv6 Transition Implementations**

CS-SPCORE

- **Module 1: Multiprotocol Label Switching**
- **Module 2: MPLS Traffic Engineering**
- **Module 3: QoS in the Service Provider Network**
- **Module 4: QoS Classification and Marking**
- **Module 5: QoS Congestion Management and Avoidance**

CS-SPEDGE

- **Module 1: VPN Technologies**
- **Module 2: MPLS Layer 3 VPNs**
- **Module 3: Special Connectivity in MPLS Layer 3 VPNs**
- **Module 4: MPLS IPv6 and Interdomain Solutions**
- **Module 5: Layer 2 VPNs**