SPCNI

Designing and Implementing Cisco Service Provider Cloud Network Infrastructure

40 horas | Profissional | Cisco

Cisco Continuing Education Credits

40 CE Credits

INTRODUÇÃO

The SPCNI training teaches you how to design, implement, and manage virtualization cloud infrastructures in a service provider network using programmability and orchestration, including cloud computing, cloud interconnect, DCI solutions, and high availability.

OBJETIVO DO CURSO

Get an overview of Cisco NFV Infrastructure, VIM, and NSO

Understand networking and deployment operation in OpenStack

Get an overview of NFVI security features

Describe application hosting architecture on Cisco IOS XR

Introduce containers and container architecture

Describe Kubernetes concepts, objects, nodes, pods, and clusters

Describe cloud computing, deployment models, service models, and CNFs

Implement MPLS, Segment Routing, and SRv6

Describe the L3 VPN control plane operation and data flow

Configure LDP and BGP security and optimization

Describe IGP control plane security mechanisms

Configure uRPF, MACsec, and remote-triggered black-hole filtering

Describe high-availability technologies and multi-homing scenarios

Describe SR-TE benefits and implementation

Describe QoS options for public cloud connectivity

Discuss high availability mechanisms in routing and services DNS

Implement On-Demand Next Hop

Implement model-driven telemetry and Cisco ThousandEyes

Describe Cisco Crosswork Network Controller (CNC)

PÚBLICO-ALVO

System Engineers, Technical Support Personnel, Channel Partners, Resellers

PRÉ-REQUISITOS

Recommended: BGP/IS-IS/OSPF routing experience, Layer 2 IEEE switching, MPLS configuration and troubleshooting.

CONTEÚDO PROGRAMÁTICO

Course Outline

Cisco NFV Infrastructure

Cloud Computing

Service Provider Model-Driven Programmability

Network Orchestration using NSO

Container Orchestration

Cisco Crosswork Network Controller

Cloud Interconnect Solutions

Data Center Interconnect Solutions

Service Provider High Availability

Service Provider Core Optimization

Service Provider Performance Monitoring

Service Provider Control Plane Security

Service Provider Data Plane Security

Lab Outline

Deploy a VNF Using OpenStack

Configure Devices Using Model-Driven Programmability

Network Orchestration using NSO

Configure Application Hosting in Docker Container

Configure and Verify Layer 3 VPN

Configure and Verify EVPN VPWS

Configure and Verify SR TI-LFA with IS-IS and OSPF

Configure and Verify SR-TE with IS-IS and OSPF

Configure and Verify ODN and Flexible Algorithm

Configure and Verify Model-Driven Telemetry

Implement BGP Security

Implement RTBH Filtering