

SPCNI**Designing and Implementing Cisco Service Provider Cloud Network Infrastructure**

40 horas

Professional

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