

VMware Cloud Director : Advanced Networking with NSX-T

Data Center (V10.2)

Course Outline

1. Course Introduction

- Introductions and course logistics
- Course objectives

2. VMware Cloud Director and NSX-T Data Center Fundamentals

- Explain NSX-T Data Center and its architecture
- Discuss various NSX-T Data Center components
- Discuss cluster design for NSX-T Data Center
- Deployment methods for NSX-T Data Center Edge nodes
- Discuss VRF Lite feature
- Describe NSX-T Data Center objects and their creation methods
- Compare NSX-T Data Center and NSX Data Center for vSphere functionality
- List various requirements and maximum configuration details
- Explain Cloud Director and its architecture
- Discuss Cloud Director prerequisites and deployment
- Discuss use cases and features of VMware Cloud Director
- Discuss VMware Validated Designs for Cloud Providers

3. Provider Configuration

- Discuss the integration of vCenter Server with VMware Cloud Director
- Discuss the integration of NSX-T Data Center with VMware Cloud Director
- Explain the Geneve network pool
- Describe types of provider networks and their use cases
- Discuss the edge gateway and its services
- Discuss the external network with the Tier-0 gateway
- Understand the external network with VRF
- Compare Tier-0 gateway and VRF supported external gateway
- Discuss the dedicated external network
- Explain distributed routing
- Discuss BGP configuration in NSX-T Data Center
- Discuss shared and dedicated external network topologies

4. Tenant Configuration

- Discuss various types of organization VDC networks and their use cases
- Explain vApp networks and their use cases
- Discuss different organization VDC network topologies
- Understand configuration requirements for each organization VDC network
- Differentiate between imported and direct organization VDC networks
- Explain imported organization VDC network topology
- Explain edge services available for each type of organization VDC network
- Discuss SNAT, DNAT, NO SNAT, and NO DNAT

- Discuss IP Allocation Pools
- Discuss Security Groups
- Identify Security Group objects in NSX-T Data Center

5. Cross VDC Networking Using NSX-T Data Center

- Explain Data Center Groups and their use cases
- Define compute provider scope and network provider scope
- Configure cross-VDC networking and L2 stretched networks
- Manage participating VDCs in a data center group
- Add a data center group edge gateway to a data center group
- Configure the distributed firewall for a data center group

6. NSX Advanced Load Balancer

- Describe NSX Advanced Load Balancer components and its main functions
- Explain NSX Advanced Load Balancer key features, benefits, and use cases
- Discuss NSX-T Cloud and its configuration requirements
- Integrate NSX Advanced Load Balancer with NSX-T Data Center
- Explain Service Engine Groups and types
- Discuss Virtual Service and its configuration
- Integrate NSX Advanced Load Balancer with VMware Cloud Director
- Understand and apply a load balancing design framework
- Monitor NSX Advanced Load Balancer

7. VMware NSX Migration for VMware Cloud Director

- Understand use cases and purpose of the NSX Migration for VMware Cloud Director
- Discuss supported topology and compatibility matrix
- Understand supported features
- Understand environmental prerequisites
- Discuss how to prepare the edge cluster for bridging and migration
- Build the userInput.yml file by providing environment details
- Perform a Precheck
- Discuss error handling after Precheck
- Perform the actual migration
- Discuss troubleshooting tips and solutions

8. Monitoring and Billing VMware Cloud Director Networking

- Discuss methods to manage and monitor networking objects from the VMware Cloud Director portal
- Understand vRealize Operations Manager and the vRealize Operations Manager Tenant App overview
- Discuss how to monitor VMware Cloud Director networking objects using vRealize Operations Manager and the Tenant App
- Create a policy and generate customer bills
- Enable the tenant application plug-in for VMware Cloud Director
- Describe the usage of Usage Meter with VMware Cloud Director