

## VMware NSX: Install, Configure, Manage [6.4]

- 1 Course Introduction
  - Introductions and course logistics
  - Review course objectives
- 2 Introduction to vSphere Networking
  - Describe VMware vSphere® networking components
  - Describe vSphere standard switches
  - Describe vSphere distributed switches
- 3 Introduction to NSX
  - Describe the benefits of NSX
  - Identify NSX key use cases
- 4 NSX Architecture
  - Describe the NSX architecture
  - Describe the cloud management, management, control, and data planes of NSX
  - Identify the component interactions
  - Describe the VMware NSX® Controller™ cluster and its functions
  - Explain the NSX Controller workload distribution
- 5 NSX Infrastructure Preparation
  - Explain the steps required for an NSX installation
  - Describe what is involved in planning an NSX deployment
  - Describe the NSX Controller cluster and deployment
  - Describe NSX Controller cluster high availability and load distribution
  - Explain how to deploy and configure the NSX Controller cluster
  - Explain the workflow involved in host preparation
- 6 NSX Logical Switch Networks
  - Explain transport zones, VXLANs, and VXLAN tunnel end points (VTEPs)
  - Describe the procedure for preparing the infrastructure for virtual networking
  - Describe the configuration of vSphere distributed switches for VXLAN
  - Identify the components involved in NSX logical switching
  - Define VLANs for VXLAN
- 7 NSX Logical Routing
  - Explain the east-west and north-south routing concepts
  - Define the NSX distributed logical router
  - Explain the logical router, interfaces, and interface addresses
  - Describe the management and control plane interaction
  - Describe logical router deployment models and two-tier routing for east-west traffic
  - Explain the common topologies of an NSX Edge services gateway
- 8 Advanced NSX Logical Routing
  - Describe how routers connect remote networks
  - Explain route redistribution methods
  - Describe less-than-or-equal (LE) and greater-than-or-equal (GE) configurations
  - Describe routing event notification enhancements
  - Configure equal-cost multipath (ECMP) routing
  - Describe high availability for NSX Edge service gateways
- 9 NSX L2 Bridging
  - Explain L2 bridging use cases
  - Describe software and hardware L2 bridging between VXLAN and VLANs
  - Discuss L2 bridging packet flows
- 10 NSX Edge Services
  - Describe the NSX Edge Services

- Explain how Network Address Translation (NAT) works
- Explain NAT64
- Explain the function of load balancing
- Explain one-armed and inline load-balancing architectures
- Explain the DHCP and DNS services for NSX Edge

#### 11 NSX Edge VPN Services

- Describe the NSX Edge VPN services
- Describe the VPN use cases
- Configure a L2 VPN on an NSX Edge instance
- Configure an NSX Edge instance for IPsec VPN services
- Explain NSX Edge SSL VPN-Plus services
- Configure NSX Edge SSL VPN-Plus server settings

#### 12 NSX Security Services

- Describe the policy enforcement of the distributed firewall
- Describe virtualization context-awareness
- Explain custom network and security containers
- Describe the architecture of an NSX Edge firewall
- Explain DHCP snooping
- Explain ARP snooping

#### 13 NSX Advanced Security Services

- Describe NSX SpoofGuard
- Identify how tags enable dynamic security service chains
- Explain Service Composer groups, policies, and tags
- Describe the Identity Firewall architecture
- Explain Application Rule Manager
- Explain how to create a monitoring session

#### 14 NSX Introspection Services

- Describe the types of introspection services
- Describe the installation and configuration of Guest and Network Introspection
- Summarize Guest and Network Introspection alarms, events, and audit messages

#### 15 Cross-vCenter NSX

- Describe cross-vCenter features and use cases
- Identify VMware NSX® Manager™ roles and NSX Controller cluster placement
- Deploy universal logical networks
- Explain the design considerations for cross-vCenter NSX