

VMware NSX: Install, Configure, Manage 6.4

Modality: Virtual Classroom

Duration: 5 Days

About this Course:

This intermediate-level 5 days Training Program provides a comprehensive overview of core features and functionalities of VMware NSX®. This course helps Network & System Administrators build familiarity with the core concepts of NSX Logical Switching, Firewall Configuration, Gateway Services, and Security Services. The main goal is to help professionals effectively virtualize switching environments and proficiently optimize and protect NSX Environment. On average, Professional VMware Administrators with proficiency in VMware Technologies earn \$79,168 annually.

Professionals will also get to learn the fundamentals of logical routing and will get to know the effective strategies for dynamically routing multiple virtual environments. In this course, candidates will also get free access to a Software-Defined Data Center Ecosystem and will get to adopt practical skills and knowledge of working in such an environment.

Course Objectives:

The core objective of this course is to help professionals develop a better understanding and sound knowledge of the following key concepts:

- NSX Components Configuration and Deployment for Control and Management
- NSX Layer 2 Networking Fundamentals and Essentials
- Logical Switch Networking Configuration, Deployment, & Applications
- NSX Distributed Logical Router Appliance Configuration & Deployment
- East-West Connectivity Formation with NSX Distributed Logical Router Appliances
- VMware NSX Edge Services Gateway Appliances Configuration & Deployment
- North-South Connectivity Formation through VMware NSX Edge Services Gateway
- NSX Layer 2 Bridging Configuration
- NSX Edge Services Gateway Configuration and Core Functionalities
- Restricting Network Traffic with NSX Edge & Distributed Firewall Rules Settings
- Service Composer Policies and Identity-Aware Firewall Configuration
- NSX Data Security & Cross-vCenter NSX Features

Audience:

- Experienced System Administrators
- Professional Network Administrators
- IT Professionals & Experts

Prerequisites:

Professionals planning to enroll in the VMware NSX: Install, Configure, Manage V6.4 (VNSXICM61)

course must comply with the following prerequisites:

- Fundamental Knowledge of Enterprise Routing and Switching
- Familiarity with Firewall Rule Sets & TCP/IP Services
- Understands the Core Concepts of VMware Data Center Virtualization Fundamentals
- Familiarity with VMware Introduction to Network Virtualization with NSX course

Course Outline:

Module 1 Course Introduction

- Introductions and course logistics
- Review course objectives

Module 2 Introduction to vSphere Networking

- Describe VMware vSphere® networking components
- Describe vSphere standard switches
- Describe vSphere distributed switches

Module 3 Introduction to NSX

- Describe the benefits of NSX
- Identify NSX key use cases

Module 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

Module 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

Module 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

Module 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

Module 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

Module 9 NSX L2 Bridging

- Explain L2 bridging use cases
- Describe software and hardware L2 bridging between VXLAN and VLANs
- Discuss L2 bridging packet flows

Module 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

Module 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

Module 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

Module 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

Module 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

Module 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