Course Overview
This five-day, fast-paced course provides comprehensive training on how to install, configure, and manage a VMware NSX-T Data Center environment. This course covers key NSX-T Data Center features and functionality offered in the NSX-T Data Center 3.0 release, including the overall infrastructure, logical switching, logical routing, networking and security services, micro-segmentation and firewalls, and more.

Access to a software-defined data center environment is provided through hands-on labs to reinforce the skills and concepts presented in the course.

Course Objectives
By the end of the course, you should be able to meet the following objectives:

- Describe VMware Virtual Cloud Network and the NSX-T Data Center architecture
- Describe the NSX-T Data Center components and main functions
- Explain the NSX-T Data Center key features and benefits
- Deploy and configure NSX-T Data Center infrastructure
- Configure layer 2 logical switching and bridging
- Explain the tiered routing architecture and configure gateways
- Configure advanced services such as VPN and load balancing
- Describe the NSX-T Data Center security model with micro-segmentation
- Configure Distributed Firewall and Gateway Firewall to protect east-west and north-south traffic
- Explain advanced security enforcement with URL analysis, IDS, and partner service insertion
- Integrate VMware Identity Manager℠ or LDAP with NSX-T Data Center and configure role-based access control
- Describe NSX-T Data Center Federation use-cases and architecture for switching, routing, and security.

Target Audience
- Experienced system administrators or network administrators
Prerequisites

- Good understanding of TCP/IP services and network security and working experience with firewalls
- Working experience with enterprise switching and routing

Solid understanding of concepts presented in the following courses:

- VMware Data Center Virtualization Fundamentals
- VMware Introduction to Network Virtualization with NSX
- VMware Network Virtualization Fundamentals

Course Delivery Options

- Classroom
- Live Online
- Onsite
- On Demand

Product Alignment

- NSX-T Data Center 3.0
Course Modules

1 Course Introduction
   • Introductions and course logistics
   • Course objectives

2 VMware Virtual Cloud Network and NSX-T Data Center
   • Introduce VMware’s Virtual Cloud Network vision
   • Discuss NSX-T Data Center solutions, use cases, and benefits
   • Explain NSX-T Data Center architecture and components
   • Describe VMware NSX™ product portfolio and features
   • Explain the management, control, data, and consumption planes and function

3 Deployment Preparing the NSX-T Data Center infrastructure
   • Describe NSX Management Cluster
   • Deploy VMware NSX™ Manager™ nodes on VMware ESXi and KVM hypervisors
   • Navigate through the NSX Manager UI
   • Explain data-plane components such as N-VDS, transport nodes, transport zones, profiles, and more
   • Perform transport node preparation and establish the data center infrastructure
   • Verify transport node status and connectivity

4 NSX-T Data Center Logical Switching
   • Introduce key components and terminology in logical switching
   • Describe the function and types of L2 segments
   • Explain tunneling and the GENEVE encapsulation
   • Configure logical segments and attach hosts using NSX Manager UI
   • Describe the function and types of segment profiles
   • Create segment profiles and apply them to segments and ports
   • Explain the function of MAC, ARP, and TEP tables used in packet forwarding
   • Demonstrate L2 unicast packet flow
   • Explain ARP suppression and BUM traffic handling

5 NSX-T Data Center Logical Routing
   • Describe the logical routing function and use cases
   • Introduce the two-tier routing architecture, topologies, and components
   • Explain the Tier-0 and Tier-1 Gateway functions
   • Describe the logical router components: Service Router and Distributed Router
   • Discuss the architecture and function of VMware NSX™ Edge™ nodes
   • Discuss deployment options of NSX Edge nodes
   • Configure NSX Edge nodes and create NSX Edge clusters
   • Configure Tier-0 and Tier-1 Gateways
   • Examine the single-tier and multitier packet flow
   • Configure static routing and dynamic routing
   • Enable ECMP on Tier-0 Gateway
   • Describe NSX Edge HA, failure detection, and failback modes

6 NSX-T Data Center Bridging
   • Describe the function of logical bridging
   • Discuss the logical bridging use cases
   • Compare routing and bridging solutions
   • Explain the components of logical bridging
   • Create bridge clusters and bridge profiles

7 NSX-T Data Center Security
   • Introduce the NSX-T Data Center security approach and model
   • Describe the micro-segmentation benefits and use cases
   • Describe the Distributed Firewall architecture, components, and function
   • Configure Distributed Firewall sections and rules
   • Describe the Gateway Firewall architecture, components, and function
   • Configure Gateway Firewall sections and rules
   • Describe URL analysis and distributed intrusion system importance and use-cases
   • Describe the service insertion functionality for east-west and north-south security
   • Discuss the integration and benefits of partner security solutions with NSX-T Data Center
8 NSX-T Data Center Services
- Describe NSX-T Data Center services
- Explain and configure Network Address Translation (NAT) and NAT 64
- Explain and configure DNS and DHCP services
- Describe the load-balancing function, topologies, components, and use cases
- Configure L4-L7 load balancing
- Discuss the IPSec VPN and L2 VPN function and use cases
- Configure IPSec VPN and L2 VPN using NSX Manager UI

9 NSX-T Data Center Monitoring
- Explain the importance and functionality of VMware NSX™ Intelligence™
- Navigate through the NSX Topology UI and identify the various key elements in the UI
- Discuss the importance and use-cases of alarms and events

10 NSX-T Data Center User and Role Management
- Describe the function and benefits of VMware Identity Manager in NSX-T Data Center
- Integrate VMware Identity Manager with NSX-T Data Center
- Integrate LDAP with NSX-T Data Center
- Identify the various types of users, authentication policies, and permissions
- Use role-based access control to restrict user access
- Explain the built-in roles in VMware Identity Manager and role assignment to users

11 NSX-T Data Center Federation
- Introduce the NSX-T Data Center Federation key concepts, terminology, and use-cases.
- Explain the onboarding process of NSX-T Data Center Federation
- Describe the NSX-T Data Center Federation switching and routing functions.
- Describe the NSX-T Data Center Federation security concepts and routing functions

Contact
If you have questions or need help registering for this course, click here.