Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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VMware NSX-T Data Center: Install, Configure, Manage V3.0

CODE:	LENGTH:	PRICE:
VM-NSX-TDC-ICM-V2.4	40 Hours (5 days)	$4,250.00

Description

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 2.4 release, including the overall infrastructure, logical switching, logical routing, networking and security services, micro-segmentation and firewalls, and so on.
Access to a software-defined data center environment is provided through hands-on labs to reinforce the skills and concepts presented in the 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 partner service insertion
- Integrate VMware Identity ManagerTM with NSX-T Data Center and configure Role-Based Access Control
- Gather relevant information and perform basic troubleshooting with various tools

Audience

- Experienced system administrators or network administrators

Prerequisites

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

Program

1 Course Introduction
- Introductions and course logistics
- Overview of modules and 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 NSX-T Data Center Infrastructure Deployment
- Describe NSX Management Cluster
- Deploy VMware NSX® ManagerTM nodes on VMware ESXiTM 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 types of L2 segments and function
- 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 Logical 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 Services
- Describe NSX-T Data Center services
- Explain and configure Network Address Translation (NAT)
- 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

8 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 Network Introspection service insertion for east-west and north-south security
- Describe Endpoint Protection and use cases
- Discuss the integration and benefits of partner security solutions with NSX-T Data Center

9 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
- 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

10 NSX-T Data Center Basic Troubleshooting
- Introduce the troubleshooting methodology and process
- Use various methods to collect local and remote log files
- Describe troubleshooting tools, such as IPFIX, Traceflow, Packet Capture, SPAN, and so on
- Solve basic problems related to installation, switching, routing, and firewalls
- Use CLI commands to verify the component configuration and status in NSX-T Data Center

Session Dates

On request. Please Contact Us

Additional Information

This training is also available as onsite training. Please contact us to find out more.