VMware NSX-T Data Center: Install, Configure, Manage

Duration: 5 Days **Course Code: VMNSX-TDCICM** **Version: 3.0**

Overview:

This five-day, fast-paced VMware NSX-T Data Center 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.

Product Alignment: NSX-T Data Center 3.0

Target Audience:

Experienced system administrators Network administrators

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, partner service insertion
- Integrate VMware Identity ManagerTM 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.

Prerequisites:

- Good understanding of TCP/IP services and network security and working experience with firewalls
- Working experience of 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
- Mware Network Virtualization Fundamentals

Content:

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

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

- 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 NSX Intelligence
- Navigate through the NSX Topology UI and identify the various key elements in the UI
- Discuss the importance and use-cases of dashboards and alarms

10 NSX-T Data Center User and Role Management

- Describe the function and benefits of VMware Identity Manager in NSX-T Data

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

- 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

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

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

Further Information:

For More information, or to book your course, please call us on 0800/84.009

info@globalknowledge.be

www.globalknowledge.com/en-be/