COURSE OVERVIEW – VMWARE NSX-T DATA CENTER: TROUBLESHOOTING AND OPERATIONS 2.4

This five-day, hands-on training course provides you with the advanced knowledge, skills, and tools to achieve competency in operating and troubleshooting the VMware NSX-T^{TM} Data Center environment. In this course, you are introduced to workflows of various networking and security constructs along with several operational and troubleshooting tools that help managing and troubleshooting your NSX-T Data Center. In addition, you are presented with various types of technical problems, which you will identify, analyze, and solve through a systematic process.

COURSE OBJECTIVES

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

- Establish and apply a structured troubleshooting approach and methodology
- Explain the NSX-T Data Center infrastructure components and the communications between them
- Identify, analyze, and troubleshoot problems related to the NSX-T Data Center management, control, and data planes
- Identify, analyze, and troubleshoot problems related to the NSX-T Data Center installation and upgrade
- Identify, analyze, and troubleshoot problems related to the NSX-T Data Center logical switching, logical routing, and load balancer services
- Identify, analyze, and troubleshoot network security problems related to the NSX-T Data Center Distributed firewall and Gateway firewall.
- Identify the components and packet flows involved in the NSX-T Data Center Datapath and troubleshoot various
  problems that could occur in the Datapath
- List the native tools available in NSX-T Data Center to identify and troubleshoot the problems related to NSX-T Data Center environment.

TARGET AUDIENCE

- Experienced system administrators or network administrators
- Network and Security professionals who work with enterprise and data center networks

PREREQUISITES

Before taking this course, you should have completed the VMware NSX-T Data Center: Install, Configure, Manage [V2.4] course.

You should also have the following understanding or knowledge:

• Good understanding of TCP/IP services and protocols

• Knowledge and working experience of computer networking, including:

  o Switching and routing technologies (L2-L3)
  o Network and application delivery services (L4-L7)

• Knowledge and working experience of VMware vSphere$^{®}$ environments and KVM-based environments
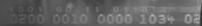
The VMware Certified Professional – Network Virtualization (2019) certification is recommended.

COURSE DELIVERY OPTIONS

o Classroom
o Live Online
o Onsite
o On Demand

PRODUCT ALIGNMENT

o NSX-T Data Center 2.4

Course Modules

1 Course Introduction

• Introductions and course logistics
• Overview of modules and course objectives
• Resources and references
• Learning paths and certifications

2 NSX-T Data Center Architecture

• Review of Virtual Cloud Network Framework
• Recap of NSX-T Data Center architecture and components

3 Approach to Troubleshooting

• Develop a structured approach to troubleshooting
• Differentiate between symptoms and root causes • Identify and isolate problems residing in various areas
• Apply an appropriate methodology and procedure to troubleshooting

4 Troubleshooting the NSX Management Cluster

• Describe the NSX Management cluster architecture, components, and communication channels.
• Identify the workflows involved in configuring the NSX Management cluster.
• Validate and troubleshoot the NSX Management Cluster formation

5 Troubleshooting Infrastructure Preparation

• Explain and troubleshoot ESXi^{TM} Transport Node preparation issues.
• Explain and troubleshoot KVM Transport Node preparation issues.
• Explain and troubleshoot NSX Edge Transport Node preparation issues.

6 Troubleshooting Logical Switching

• Understand the architecture of Logical Switching
• List the modules and processes involved in configuring Logical Switching
• Explain the importance of N-VDS in Transport Nodes
• Explain the GENEVE protocol and GENEVE header format
• Review the architecture and workflows involved in configuring OVS
• Identify and troubleshoot common Logical Switching issues.

7 Troubleshooting Logical Routing

• Review the architecture of Logical Routing and NSX Edge nodes
• Explain the workflows involved in the configuration of Tier-0 and Tier-1 Gateways.
• Explain the HA modes and logical router placements.
• Identify and troubleshoot common Logical Routing issues.

8 Troubleshooting Load Balancing

• Review of Load Balancer architecture and components
• Identify and troubleshoot common Load Balancing issues

9 Troubleshooting Security

• Review the architecture of Distributed Firewall
• Explain the workflows involved in configuring Distributed Firewall
• Review the architecture of Gateway Firewall
• Explain the workflows involved in configuring Gateway Firewall
• Identify and troubleshoot common Distributed Firewall and Gateway Firewall issues

10 NSX-T Data Center Operations and Tools

• Review and perform the backup and restore of the NSX-T Data Center environment
• Explain and validate the native troubleshooting tools (dashboards, traceflow, port connection tool, port mirroring) involved in troubleshooting the NSX-T Data Center environment
• Configure syslog, IPFIX, and log collections for the NSX-T Data Center environment
• Validate and review the APIs methods available to configure the NSX-T Data Center environment

11 NSX-T Data Center Upgrade

• Identify the proper sequence of steps to upgrade NSX-T Data Center
• Describe the necessary pre-upgrade and port- upgrade checks
• Understand the Upgrade Coordinator architecture
• Review and troubleshoot the upgrade process for NSX-T Data Center Environment

12 Datapath Walk-Through

• Describe the components involved in the NSX-T Data Center Datapath
• Verify and validate the path of the packet on the NSX-T Datapath
• Identify and perform packet captures at various points in Datapath
• Use nsxcli to retrieve several configurations involved in NSX-T Datapath

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