

VMware NSX-T Data Center - Troubleshooting and Operations [v2.4]

Overview

This hands-on training course provides you with the advanced knowledge, skills, and tools to achieve competency in operating and troubleshooting the VMware NSX-T 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.

Prerequisite Comments

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:
Switching and routing technologies (L2-L3)
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.

Target Audience

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

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

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Schedule

Class Length: 5 Days

G2R = "Guaranteed to Run" | OLL = "Online LIVE"
ILT = "Instructor-Led-Training"

This course is not currently available on the public schedule. Please contact us using the information in the footer below to inquire about future dates or to schedule a private class.

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.

Course Outline

1 - Course Introduction

Introductions and course logistics
Overview of modules and course objectives

2 - Troubleshooting Methodology

Recap of NSX-T Data Center architecture and components
Develop a structured troubleshooting approach
Differentiate between symptoms and root causes
Identify and isolate problems residing in various areas
Apply an appropriate methodology and procedure to troubleshooting

3 - NSX Management Cluster

Describe NSX Management Cluster
Identify the workflows involved in NSX Management Cluster formation
Identify, analyze, and troubleshoot the workflows and problems involved in NSX Manger and Control Cluster group formations
Review the log events for NSX Management Cluster
Validate and troubleshoot the NSX Management Cluster formation
Identify the agents running on the NSX-T Data Center and validate the connection status

4 - Installation and Upgrade

Validate Manager Nodes Deployment Workflow and Troubleshooting
Review Compute Manager (VMware vCenter®) Registration workflow and Troubleshooting
Explain Host Preparation workflows for VMware ESXi and KVM (VIB/Package installation)
Explain Transport Node Preparation workflows for ESXi and KVM
Understand Upgrade Coordinator Architecture
List upgrade Checklist and Workflows
Review the upgrade process for NSX-T Data Center Environment
Review the troubleshooting methodology involved

5 - Logical Switching

Understand the deep-dive architecture for Logical Switching
List the modules and processes involved
Explain the importance of N-VDS in Transport Nodes
Review and troubleshoot the working of GENEVE encapsulation
Review the advanced architecture and workflows involved with OVS
Explain the advanced workflows and troubleshooting methodologies involved in Logical Switching

6 - Logical Routing and Services

Review the deep-dive architecture for Logical Routing and Edge nodes
Explain the advanced workflows involved with Tier-0 and Tier-1 Gateways.
Explain the HA modes and logical router placements.
Review and validate various logging methods and logging locations for Logical Routing
Identify common issues and troubleshooting methodologies involved for Logical Routing
Identify, validate, and review common issues and troubleshooting techniques involved for NSX-T Load Balancers

7 - Security

Review the deep-dive architecture for Distributed Firewall
Explain the advanced workflows involved with Distributed Firewall
Review the deep-dive architecture for Gateway Firewall
Explain the advanced workflows involved with Gateway Firewall
Identify common issues and troubleshooting methodologies involved for Distributed and Gateway Firewalls

8 - 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 for troubleshooting the NSX-T Data Center environment
Configure the syslog, IPFIX, and log collections for NSX-T Data Center Environment
Explain and validate the certificate management options
Validate and review several APIs available for most common configurations involved in NSX-T Data Center

9 - Datapath Troubleshooting

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

10 - Break-Fix Scenarios

Identify and isolate NSX-T Data Center related problems available in the SDDC based hands-on lab environment

Use CLI commands to verify the component configuration and status of several Datapath components in NSX-T Data Center

Apply an appropriate methodology and procedure to troubleshooting and fix the problems in the lab environment

Related Courses, Certifications, Exams ---

- VMware NSX-T Data Center- Install, Configure, Manage [v2.4]
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