

VMware NSX Troubleshooting & Operations V6.3

Duration: 5 Days

Overview:

This five-day hands - on training course provides you with the advanced knowledge, skills and tools to achieve competence in operating and troubleshooting the VMware NSX® 6.3 environment. In this course, you will be presented with various types of technical problems. You will learn how to identify the problems and solve them through a systematic process. You will also be introduced to several operational, management, and troubleshooting tools. Product Alignment: NSX 6.3, VMware vRealize® Log Insight™ 4.3, VMware vRealize® Network Insight™ 3.3, VMware vRealize® Operations Manager™ 6.5. This course prepares you for the following certification: VMware Certified Advanced Professional – Network Virtualisation Deployment (VCAP6-NV Deploy)

Target Audience:

Network professionals who work with enterprise networks and VMware Sphere®

Pre-requisites:

Before attending this course, students must have:

- Understanding of layers 2 through 3 networking protocols, and switching and routing methodology
- Understanding of layers 4 through 7 network services
- Understanding of the concepts presented in the VMware NSX: Install, Configure, Manage course or the VMware NSX for internetworking Experts Fast track course, or equivalent networking and vSphere experience
- VCP6-NV certification is recommended

Module 1: Course Introduction

- Introductions and course logistics
- Course Objectives
- Resources and references
- Learning paths and certifications

Module 2: Troubleshooting Methodology

- 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

Module 3: Troubleshooting and Operating NSX Infrastructure

- Describe the NSX infrastructure and component communications
- Discuss common VMware NSX® Controller™ deployment problems
- Install NSX components for host preparation
- Troubleshoot host preparation problems
- Troubleshoot management and control plan synchronisation problems
- Introduce the NSX central CLI

Module 4: Troubleshooting and Operating NSX Logical Switches

- Describe the components involved in NSX logical switching
- Describe the logical switching control plane operations
- Explain the management plane operations and solve VMware NSX® Manager™ problems
- Configure vSphere distributed switches for VXLAN
- Troubleshoot NSX controller problems related to logical switching
- Troubleshoot virtual machine connectivity problems

Module 5: Troubleshooting and Operating NSX Logical Routers

- Describe the communications between routing components
- Distinguish between the distributed logical router (DLR) and the edges services gateway and their purposes
- Describe DLR packet flow
- Configure the transport zone
- Describe VMware NSX® Edge™ nodes

Module 6: Troubleshooting and Operating NSX Security Services

- Describe the distributed firewall (DFW) components and explain how they communicate with each other
- Explain how the DFW and NSX Edge firewall rules are managed by NSX Manager
- Describe the Service Composer architecture
- Explain the architecture of Guest Introspection with third-party devices
- Explain how NSX service chaining dynamically responds to changing security conditions
- Explain how the DFW, the filtering module, and traffic redirection modules work together

Module 7: Troubleshooting and Operating NSX Edge Services

- Use the GUI and CLI commands to verify the DHCP relay configuration
- Configure SSL VPN-Plus server and clients
- Use GUI and CLI commands to verify SSL VPN-Plus session details
- Troubleshoot common SSL VPN-Plus problems
- Configure L2 VPN service
- Capture L2 VPN packets for troubleshooting and analysis
- Use GUI and CLI commands to verify L2 VPN configuration settings, policies, mapping tables, and operational status
- Configure IPsec VPN tunnels between sites
- Use logging to troubleshoot IPsec VPN issues
- Perform a packet walk in a hub-and-spoke IPsec VPN environment
- Describe the logical loading-balancing features Analyse common high availability configuration problems and provide solutions

Course Completion:

After completing this course, students will be able to:

- Establish and apply a structured approach and methodology for troubleshooting
- Troubleshoot NSX infrastructure and component problems
- Troubleshoot physical and logical networking problems involving switching and routing
- Troubleshoot advanced edge services
- Troubleshoot network security problems
- Use tools to monitor, operate and troubleshoot NSX deployments

Module 8: vRealize Operational Tools for NSX Operations Management

- Describe some common network operation challenges and misconceptions
- Discuss the architecture and components of vRealize Network Insight
- Explain how to use vRealize Network Insight to identify and troubleshoot network problems in a data center
- Monitor the network health, using dashboards, widgets, and alerts
- Retrieve network statistics, network flow information, packet information, and NSX system events
- Investigate root causes of problems and troubleshoot based on log analysis
- Identify how to use vRealize Operations Manager to visualise all NSX networking services deployed in each vSphere cluster
- Create templates to generate reports for NSX for vSphere objects
- Describe the creation of custom dashboards for NSX