

**Module Title** : VMware NSX: Troubleshooting and Operations [V6.4]

**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® 6.4 environment. In this course, you are introduced to several operational, management, and troubleshooting tools. You will be presented with various types of technical problems, which you will identify, analyze, and solve through a systematic process.

### Product Alignment

- NSX 6.4
- VMware vRealize® Network Insight™ 3.6
- VMware vRealize® Log Insight™ 4.5

## 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 native NSX tools, VMware vRealize® Suite tools, and partner tools that are useful for monitoring, troubleshooting, and operations
- Explain the NSX infrastructure components and the communications between them
- Identify, analyze, and troubleshoot problems related to the NSX management, control, and data planes
- Identify, analyze and troubleshoot problems related to NSX logical switching, logical routing, and VMware NSX® Edge™ services
- Identify, analyze, and troubleshoot network security problems related to the NSX distributed firewall and the NSX Edge firewall

## Certifications

This course prepares you for the following certification:

- VMware Certified Advanced Professional 6 – Network Virtualization Deployment (VCAP6-NV Deploy)

## Intended Audience

Network professionals who work with enterprise networks and VMware Sphere® 6.x

## Prerequisites

- Knowledge and working experience of computer networking, including:
  - Switching and routing technologies (L2-3)
  - Network and application delivery services (L4-7)
- Knowledge and working experience of vSphere
- Knowledge and working experience of NSX installation, configuration, management, and operations

Before taking this course, you ought to take either the VMware NSX: Install, Configure, Manage course or the VMware NSX for Internetworking Experts Fast Track course.

The VMware Certified Professional 6 – Network Virtualization (VCP6-NV) certification is recommended.

## Outline

1. Course Introduction
  - Introduction and course logistics
  - Course objectives
  - Resources and references
  - Learning paths and certifications
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
3. NSX Troubleshooting and Operational Tools
  - Discuss NSX operational requirements
  - Use the native NSX tools (such as the central CLI, the NSX dashboard, and Application Rule Manager) to solve various types of problems
  - Use vRealize Network Insight to identify and analyze problems
  - Use VMware vRealize® Log Insight™ Content Pack for NSX in troubleshooting and operations
4. Troubleshooting and Operating NSX Infrastructure
  - Explain the NSX infrastructure and component communications

- Troubleshoot VMware NSX® Manager™ and the management plane
  - Troubleshoot VMware NSX® Controller™ and the control plane
  - Troubleshoot problems in host preparation
5. Troubleshooting and Operating NSX Logical Switches
- Explain VXLAN and logical switching components
  - Verify the VXLAN and logical switch configuration and status
  - Identify and troubleshoot common layer 2 configuration errors
  - Use the GUI, the CLI, packet capture, traceflow, and other tools to troubleshoot logical switching problems
6. Troubleshooting and Operating NSX Logical Routers
- Describe the NSX logical routing architecture
  - Explain routing components, functions, and communications
  - Verify logical router configuration settings
  - Use packet capture on routers and perform packet walk
  - Use the GUI, the CLI, traceflow, and other tools to troubleshoot logical routing problems
7. Troubleshooting and Operating NSX Edge Services
- Verify edge services (such as DHCP and DNS) configuration settings and operational status
  - Troubleshoot various types of VPN services (SSL VPN-Plus, L2 VPN, and IPsec VPN)
  - Verify the configuration and status of logical load balancers
  - Troubleshoot common load-balancing and high availability scenarios
8. Troubleshooting and Operating NSX Security Services
- Discuss the NSX distributed firewall architecture, components, communication channels, and features
  - Use the CLI and other tools to troubleshoot the configuration and operations of the NSX distributed firewall and the NSX Edge firewall
  - Explain and troubleshoot the Service Composer components and architecture
  - Troubleshoot common problems related to Identity Firewall
  - Examine Guest Introspection architecture, components, services, and operations
  - Verify Guest Introspection deployment configuration and functions, and troubleshoot common problems