

VMware NSX: Troubleshooting and Operations

Course 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.

Course Objectives

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

- 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

Target Audience

Network professionals who work with enterprise networks and VMware Sphere®

Prerequisites

- 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.

Certifications

This course prepares you for the following certification:

- [VMware Certified Advanced Professional – Network Virtualization Deployment \(VCP6-NV Deploy\)](#)

Course Delivery Options

- Classroom
- Live Online
- [Onsite](#)

Product Alignment

- NSX 6.3
- VMware vRealize® Log Insight™ 4.3
- VMware vRealize® Network Insight™ 3.3
- VMware vRealize® Operations Manager™ 6.5

Course Modules

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 Troubleshooting and Operating NSX Infrastructure

- Describe the NSX infrastructure and component communications
- Describe NSX and vSphere distributed switches
- Explain VMware NSX® Manager™ to VMware vCenter Server® connectivity
- Identify vSphere 6.5 compatibility with NSX 6.3
- Explain control plane agent autorecovery

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 NSX Manager issues
- Describe user world agents and their functions
- Configure vSphere distributed switches for VXLAN
- Back up and restore vSphere distributed switch configurations

5 Troubleshooting and Operating NSX Logical Routers

- Describe the communications between routing components
- Differentiate between the distributed logical router (DLR) and the edge services gateway (ESG)
- Describe DLR packet flow
- Describe ESG and DLR packet flow with ECMP enabled
- Describe the prerequisites for logical routing

- Correctly configure the transport zone
- Understand the rules of DLR
- Describe VMware NSX® Edge™ nodes

6 Troubleshooting and Operating NSX Security Services

- Explain the DFW dependency on NSX Manager
- Explain how DFW and NSX Edge firewall rules are managed by NSX Manager
- Explain the architecture of guest introspection with third-party devices
- Understand VMware Tools™ and the NSX thin agent
- Explain how NSX service chaining dynamically responds to changing security conditions
- Describe automated security operations
- Explain how DFW, the filtering module, and the traffic redirection modules work together
- Describe the changes in the DFW packet log format

7 Troubleshooting and Operating NSX Edge Services

- Use the GUI and the CLI to verify DHCP relay configuration
- Verify the settings of a DHCP server
- Describe the SSL VPN-Plus remote access solution available on ESG
- Describe the L2 VPN features and explain how they work
- Properly configure L2 VPN service
- Configure the SSL VPN-Plus server and clients
- Properly configure IPsec VPN tunnels between sites
- Use the GUI, CLI commands, and logs to examine IPsec VPN tunnel status and statistics
- Differentiate between L4 and L7 load balancing
- Explain how high availability works
- Analyze common high-availability configuration issues and provide solutions

8 vRealize Operational Tools for NSX Operations Management

- Discuss NSX operational requirements and tools overview
- Introduce vRealize Network Insight
- Introduce VMware vRealize® Log Insight™ Content Pack for VMware NSX
- Introduce VMware vRealize® Operations Manager™ Content Pack for VMware NSX



VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 www.vmware.com

© 2016 VMware, Inc. All rights reserved. The product or workshop materials is protected by U.S. and international copyright and intellectual property laws. VMware products are covered by one or more patents listed at <http://www.vmware.com/download/patents.html>. VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

VMware warrants that it will perform these workshop services in a reasonable manner using generally accepted industry standards and practices. THE EXPRESS WARRANTY SET FORTH IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE SERVICES AND DELIVERABLES PROVIDED BY VMWARE, OR AS TO THE RESULTS WHICH MAY BE OBTAINED THEREFROM. VMWARE WILL NOT BE LIABLE FOR ANY THIRD-PARTY SERVICES OR PRODUCTS IDENTIFIED OR REFERRED TO CUSTOMER. All materials provided in this workshop are copyrighted by VMware ("Workshop Materials"). VMware grants the customer of this workshop a license to use and make reasonable copies of any Workshop Materials strictly for the purpose of facilitating such company's internal understanding, utilization and operation of its licensed VMware product(s). Except as set forth expressly in the sentence above, there is no transfer of any intellectual property rights or any other license granted under the terms of this workshop. If you are located in the United States, the VMware contracting entity for the service will be VMware, Inc., and if outside of the United States, the VMware contracting entity will be VMware International Limited.

Contact

If you have questions or need help registering for this course, click [here](#).

BETA



VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 www.vmware.com
© 2017 VMware, Inc. All rights reserved. The product or workshop materials is protected by U.S. and international copyright and intellectual property laws. VMware products are covered by one or more patents listed at <http://www.vmware.com/download/patents.html>. VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

VMware warrants that it will perform these workshop services in a reasonable manner using generally accepted industry standards and practices. THE EXPRESS WARRANTY SET FORTH IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE SERVICES AND DELIVERABLES PROVIDED BY VMWARE, OR AS TO THE RESULTS WHICH MAY BE OBTAINED THEREFROM. VMWARE WILL NOT BE LIABLE FOR ANY THIRD-PARTY SERVICES OR PRODUCTS IDENTIFIED OR REFERRED TO BY CUSTOMER. All materials provided in this workshop are copyrighted by VMware ("Workshop Materials"). VMware grants the customer of this workshop a license to use and make reasonable copies of any Workshop Materials strictly for the purpose of facilitating such company's internal understanding, utilization and operation of its licensed VMware product(s). Except as set forth expressly in the sentence above, there is no transfer of any intellectual property rights or any other license granted under the terms of this workshop. If you are located in the United States, the VMware contracting entity for the service will be VMware, Inc., and if outside of the United States, the VMware contracting entity will be VMware International Limited.