

## VMware NSX for Internetworking Experts Fast Track

Duration: 5 Days

### Overview:

This comprehensive, fast paced training course focuses on installing, configuring, and managing VMware NSX®. This course addresses NSX as a part of the software-defined data center, implementation use cases and features of NSX, and functionality operating at layer 2 through layer 7 of the OSI model.

Data center network architectures are examined to demonstrate how NSX intersects with and virtualises functions of a Cisco-Based Infrastructure in spine-leaf and traditional core-aggregate-access architectures. Lecture and hands-on lab activities support your understanding of NSX features, functionality, and ongoing management and control. This course prepares you for the following certification: VCP6-NV

### Target Audience:

Experienced system administrators who specialise in networking.

### Pre-requisites:

Before attending this course, students must have:

- System Administration experience with Microsoft Windows or Linux Operating Systems
- Understanding of concepts presented in the VMware Data Center Virtualisation Fundamentals course for VCA-DCV certification
- A solid background in a Cisco-based infrastructure or physical networking infrastructure

### Module 1: Course Introduction

- Introductions and course logistics
- Course Objectives

### Module 2: Evolution of the Software-Defined Data Center

- Evolution of the software-defined data center
- Introduction to vSphere
- Introduction to network virtualisation
- vSphere networking

### Module 3: Management and Control Components

- VMware NSX® Manager™
- VMware NSX® Controller™ clusters

### Module 4: Integrating vSphere and Physical Networking

- Virtual and physical network integration
- NSX preparation

### Module 5: NSX Logical Networking and VXLAN

- VXLAN overview and NSX switching
- NSX replication modes and frame walk

### Module 6: NSX Logical Routing

- IP routing fundamentals
- Overview of routing protocols
- Distributed logical router
- Edge gateway routing

### Module 7: NSX Layer 2 Bridging

- NSX software bridging
- Distributed logical router and bridging
- Bridging packet flow
- Bridging use case and examples
- Hardware bridging

### Module 8: Additional Edge Gateway Services

- Network address translation
- Network load balancing
- Virtual private networking
- Edge services gateway high availability

### Module 9: NSX Firewall and Security Services

- NSX security overview
- NSX edge firewall
- NSX distributed firewall
- NSX identity-based firewall
- Service composer
- Data Security and activity monitoring
- NSX Data Security

### Module 10: NSX Operations and Monitoring Tools

- Backup and availability
- Role-Based access control
- Monitoring tools
- Flow monitoring

### Module 11: Multi vCenter NSX

- Introduction to multi- vCenter NSX
- Multi-vCenter NSX deployment models

### Module 12: VMware NSX and Design

- NSX designs: infrastructure
- NSX designs: advanced network protocols

## Course Completion:

After completing this course, students will be able to:

- Describe the software-defined data center
- Describe how NSX is the next step in the evolution of the software-defined data center
- Describe features and benefits of NSX network virtualisation
- Identify prerequisites for NSX
- Configure and deploy NSX management, control, and data plane components
- Configure, deploy, and use logical switch networks
- Describe advanced networking products and features that are relevant to NSX
- Configure and deploy the NSX distributed router to optimise east-west data center traffic flows
- Configure and deploy VMware NSX® Edge™ services gateway appliances
- Explore advanced routing designs that optimise north-south traffic flows
- Configure and use NSX virtual private networks
- Configure and use logical load balancing
- Configure NSX edge firewall and distributed firewall policy rules
- Configure service composer security groups and policies
- Use role-based access to control user account privileges
- Use activity monitoring to validate and create security policies
- Design an NSX solution that considers rack design and advanced networking capabilities