



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

---

**You can reach us at:**

9201 Dry Creek Rd. Centennial, CO 80112, United States

Email: [arrow\\_learning@arrow.com](mailto:arrow_learning@arrow.com)  
Phone: 303 790 2330

CODE:	LENGTH:	PRICE:
VM-NSX-IEFT-61	40 Hours (5 days)	\$6,475.00

## Description

This comprehensive, fast-paced training course focuses on installing, configuring, and managing VMware NSX™. This course covers NSX as a part of the software-defined data center platform, implementation use cases along with 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 virtualizes functions of a Cisco-based infrastructure in spine-leaf and traditional core-aggregate-access architectures. Lecture and hands-on lab activities support the student's understanding of NSX features, functionality, and on-going management and control.

For advanced course options, go to [www.vmware.com/education](http://www.vmware.com/education).

## Objectives

- 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 virtualization
- Identify prerequisites for NSX
- Configure and deploy NSX management, control, and data plane components
- Configure, deploy, and use logical switch networks
- Configure, deploy, and use logical switch networks in a UCS environment
- Describe the Cisco Nexus and UCS products and features that are relevant to NSX
- Configure and deploy NSX distributed router to optimize East-West data center traffic flows
- Configure and deploy VMware NSX Edge™ services gateway appliances
- 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
- Describe how VMware vRealize™ Automation and NSX enable automated provisioning of IT services and networks
- Design a NSX solution with Cisco Nexus and Cisco UCS

## Audience

Experienced system administrators that specialize in networking

## Prerequisites

- System administration experience on Microsoft Windows or Linux operating systems.
- Understanding of concepts presented in the VMware Data Center Virtualization Fundamentals course for VCA-DCV certification.
- A solid background in a Cisco-based infrastructure or NSX: Install, Configure, Manage [V6.1].

## Programme

- 1.Course Introduction ◦Introductions and course logistics ◦Course objectives
- 2.Software-Defined Data Center ◦Describe the software-defined data center concepts ◦Describe the evolution of the software-defined data center ◦Discuss VMware vSphere® virtualization ◦Describe network virtualization
- 3.vSphere Networking Fundamentals ◦Describe vSphere virtual networking ◦Describe vSphere distributed switches
- 4.Management and Control Planes ◦Describe the role of VMware NSX Manager™ and VMware NSX Controller™ ◦Identify NSX Controller clustering best practices ◦Deploy the NSX Manager instance and the NSX Controller cluster
- 5.Logical Switch Networks ◦Describe VXLAN protocol ◦Identify VTEP functions ◦Describe how NSX logical switches process Broadcast, Unknown unicast, and Multicast traffic ◦Describe ARP suppression ◦Compare unicast, multicast, and hybrid controller replication modes
- 6.Nexus and UCS Architecture ◦Describe a Cisco Nexus switching architecture ◦Identify a Cisco UCS connectivity architecture ◦Describe Cisco UCS profiles
- 7.Distributed Logical Router ◦Describe the role of the NSX logical router and NSX Edge gateway ◦Diagram East-West and North-South traffic flows ◦Describe the distributed logical router ◦Describe the distributed logical router control virtual machine

8.NSX Edge Routing and High Availability ◦Describe the features of the NSX Edge services gateway ◦Configure static and dynamic routing on NSX Edge ◦Describe NSX Edge network address translation operation ◦Describe NSX Edge one-arm and inline load balancing ◦Compare NSX Edge high availability modes ◦Scale and place NSX Edge appliances

9.Virtual Private Networks ◦Identify NSX VPN use cases ◦Configure site-to-site IPsec VPNs ◦Configure SSL VPNs for remote access ◦Configure Layer 2 VPN

10.Layer 2 Bridging ◦Describe Layer 2 bridging between VXLAN and VLAN ◦Describe the traffic flow between VXLAN and VLAN

11.NSX Security ◦Describe microsegmentation ◦Compare NSX Edge and NSX Distributed Firewalls to traditional firewalls ◦Configure NSX firewall policies ◦Extend the functionality of NSX with Service Composer ◦Configure security groups and security policies with Service Composer

12.Operations ◦Implement NSX role-based access control ◦Analyze NSX flow monitoring data ◦Create or modify firewall rules from NSX flow monitoring data

13.Automation ◦Describe VMware vRealize™ Orchestrator™ ◦Describe the vRealize Automation capabilities ◦Describe how vRealize Automation and NSX interact

14.Extensibility and Design ◦Describe VMware NSX API™ ◦Identify the NSX and Cisco design options

## Test and Certification

- 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 virtualization
- Identify prerequisites for NSX
- Configure and deploy NSX management, control, and data plane components
- Configure, deploy, and use logical switch networks
- Configure, deploy, and use logical switch networks in a UCS environment
- Describe the Cisco Nexus and UCS products and features that are relevant to NSX
- Configure and deploy NSX distributed router to optimize East-West data center traffic flows
- Configure and deploy VMware NSX Edge™ services gateway appliances
- 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
- Describe how VMware vRealize™ Automation and NSX enable automated provisioning of IT services and networks
- Design a NSX solution with Cisco Nexus and Cisco UCS

## Session Dates

On request. Please [Contact Us](#)

## Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)