

Network Virtualization Concepts

OVERVIEW

Release date: September 1, 2019

Micro-course length: 8–12 hours

Micro-course format: Online accessible through [NDG Online](#) or through a Learning Tool Interoperability (LTI) cartridge that can be uploaded into your own Learning Management System (LMS)

Delivery: Instructor-led or self-paced

Upon completion: Users will be able to request a skills badge

Summary

Through VMware IT Academy, Network Virtualization Concepts provides an overview of the key concepts related to network virtualization and the software-defined data center. This micro-course will provide the learner with a basic understanding of network virtualization, the software-defined data center, and basics of NSX architecture. After this micro-course, the learner will understand how to bridge physical with virtual networks, identify vSphere® virtual networking components, and identify key components in the NSX architecture.

Prerequisites

While not required, learners who have a basic understanding of the following will be more successful in the course:

- Networking fundamentals
- Routing protocols
- Switching protocols
- Firewall operations

Target audience

- Upper-secondary students
- Community college/technical college
- College and university
- Technical learners/professionals



Modules

1. Welcome
 - 1.1. Before You Get Started
 - 1.2. Course Objectives
 - 1.3. Course Overview
 - 1.4. Additional Resources Available via VMware
2. Introduction to Network Virtualization
 - 2.1. What is Network Virtualization?
 - 2.2. What is Software-Defined Networking?
 - 2.3. Virtual Networks in Physical Networks
 - 2.4. Bridging Between Virtualized Networks and Traditional VLANs
3. The Software-Defined Data Center (SDDC)
 - 3.1. Physical Data Centers
 - 3.2. Virtualized Data Centers
 - 3.3. VMware's SDDC Approach
 - 3.4. Data Center Building Blocks
4. Network Virtualization Services
 - 4.1. Virtual Networking
 - 4.2. Virtual Switches
 - 4.3. Standard Switches
 - 4.4. Distributed Switches
 - 4.5. NSX Logical Switching
 - 4.6. NSX Logical Routing
 - 4.6.1. Edge Routing and NAT
 - 4.6.2. Load Balancing
 - 4.6.3. L2/L3 VPN
 - 4.7. NSX Logical Firewall
 - 4.7.1. Edge Firewall
5. The NSX Data Center
 - 5.1. Bringing Network Virtualization to the SDDC
 - 5.2. Key Components
 - 5.3. Integrating with Existing Network Infrastructure
 - 5.4. NSX Architecture
 - 5.4.1. Management Plane
 - 5.4.2. Control Plane
 - 5.4.3. Data Plane
 - 5.5. Security Features
 - 5.5.1. Micro-Segmentation
 - 5.5.2. Secure End User
6. Where to Go From Here?
 - 6.1. Who is NDG?

For additional information, please contact itacademy@vmware.com.

