

## **Enterprise Computing Solutions - Education Services**

# **TRAINING OFFERING**

You can reach us at:

Arrow ECS B.V., Kromme Schaft 5, 3991 AR Houten, The Netherlands

Email: education.ecs.nl@arrow.com Phone: +31 20 582 6109



## VMware NSX-T Data Center: Design [V3.0]

CODE: LENGTH: PRICE:

VMW\_NSXTD3 40 Hours (5 days) €3,750.00

## **Description**

This five-day course provides comprehensive training on considerations and practices to design a VMware NSX-T™ Data Center environment as part of a software-defined data center strategy. This course prepares the student with the skills to lead the design of NSX-T Data Center offered in the NSX-T Data Center 3.0 release, including design principles, processes, and frameworks. The student gains a deeper understanding of NSX-T Data Center architecture and how it can be leveraged to create solutions to address the customer's business needs.

### **Objectives**

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

- Understand and apply a design framework
- · Apply a design process for gathering requirements, constraints, assumptions, and risks
- · Analyze existing physical networking and security components, processes, and operations
- Design a VMware vSphere® virtual data center to support NSX-T Data Center requirements
- Design a physical network to support network virtualization in a software-defined data center
- Design logical network services
- Design logical security services
- Design a data center rack solution to support scalability and high availability
- Analyze alternative design choices for risk mitigation
- • Understand the design and support for NSX-T Data Center infrastructure in a multi data center infrastructure

#### **Audience**

· Network and security architects and consultants who design the enterprise and data center networks and NSX environments

## **Prerequisites**

Before taking this course, you should have completed the following course:

• VMware NSX-T Data Center: Install, Configure, Manage [V3.0]

You should also have the understanding or knowledge of these technologies:

- • Good understanding of TCP/IP services and protocols
- • Knowledge and working experience of computer networking, including:
- • Switching and routing technologies (L2-L3)
- Network and application delivery services (L4-L7)
- · Knowledge and working experience with VMware vSphere environments and KVM-based environments

The VMware Certified Professional – Network Virtualization (2020) certification is recommended.

## **Programme**

1 Course Introduction

- · Introductions and course logistics
- Course objectives

#### 2 Basic Design Concepts

- Describe the principles of design
- Describe the design process and frameworks
- Explain VMware Validated Design and its importance

#### 3 NSX-T Data Center Architecture and Components

- Explain the NSX-T Data Center and Virtual Cloud Network
- Describe the NSX-T Data Center architecture and use cases
- List the NSX-T Management cluster design considerations

#### 4 NSX-T Data Center Design Considerations

- Explain physical infrastructure design considerations
- Explain virtual infrastructure design considerations
- List the collapsed management and VMware NSX

#### ® Edge™ resources design considerations

Explain dedicated management and NSX Edge resources design

5 Logical Switching Design

• Explain the VMware NSX-T

™ logical switching design concepts

· Describe the traffic flooding concepts

6 NSX-T Data Center Edge Design

- List NSX Edge VM design considerations
- Explain NSX Edge BareMetal design considerations
- Describe NSX Edge cluster design
- Explain Bridge design considerations

#### 7 Logical Routing Design

- · Explain logical router components
- Describe multitier routing
- Explain IPv6 addressing and routing design concepts
- · Multi-compute workload domain design considerations

#### 8 NSX-T Data Center Advanced Routing Design

- · Explain High Availability and Router Placement
- • L3 Multicast design considerations
- Describe VRF Lite and EVPN

#### 9 NSX-T Data Center Network Design

- Explain the functionality and considerations of using NAT, Proxy ARP, DHCP, and metadata proxy
- Describe the load balancer design considerations
- Explain the VPN design considerations

#### 10 NSX-T Data Center Security Design

- Explain the Distributed Firewall design concepts
- · Explain the Identity Firewall design concepts
- · Explain the Gateway Firewall design concepts
- Describe the security policy methodology

#### 11 NSX-T Data Center Federation Design

- · Explain the Federation functionality
- Explain the design concepts for Federation components
- Describe the design involved for Federation networking
- Review Federation design considerations

#### 12 NSX-T Data Center and Containers

• • Understand the integration between NSX-T Data Center and vSphere with VMware Tanzu

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- Describe how NSX-T Data Center provides networking, load balancing, and security in vSphere for VMware Tanzu
- • Describe VMware Tanzu
- ™ Kubernetes Grid™ Service
- • Understand Tanzu Kubernetes Grid
- ™ cluster networking and load balancing capabilities

## **Session Dates**

On request. Please contact us

## **Additional Information**

This training is also available as onsite training. Please contact us to find out more.