

VMware NSX-T Data Center : Install, Configure, Manage ^{VMWARENSX}

Présentiel - Synchrone

Objectifs

Public Visé

Experienced system administrators or network administrators

Pré Requis

Good understanding of TCP/IP services and network security and working experience with firewalls
Working experience with enterprise switching and routing
Solid understanding of concepts presented in the following courses :
VMware Data Center Virtualization Fundamentals
VMware Introduction to Network Virtualization with NSX
VMware Network Virtualization Fundamentals

Objectifs pédagogiques et d'évaluation

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

- Describe VMware Virtual Cloud Network and the NSX-T Data Center architecture
- Describe the NSX-T Data Center components and main functions
- Explain the NSX-T Data Center key features and benefits
- Deploy and configure NSX-T Data Center infrastructure
- Configure layer 2 logical switching and bridging
- Explain the tiered routing architecture and configure gateways
- Configure advanced services such as VPN and load balancing
- Describe the NSX-T Data Center security model with micro-segmentation
- Configure Distributed Firewall and Gateway Firewall to protect east-west and north-south traffic
- Explain advanced security enforcement with URL analysis, IDS, and partner service insertion
- Integrate VMware Identity Manager™ or LDAP with NSX-T Data Center and configure role-based access control
- Describe NSX-T Data Center Federation use-cases and architecture for switching, routing, and security

Méthodes pédagogiques

This five-day, fast-paced course provides comprehensive training on how to install, configure, and manage a VMware NSX-TTM Data Center environment. This course covers key NSX-T Data Center features and functionality offered in the NSX-T Data Center 3.0 release, including the overall infrastructure, logical switching, logical routing, networking and security services, micro-segmentation and firewalls, and more. Access to a software-defined data center environment is provided through hands-on labs to reinforce the skills and concepts presented in the course.

Parcours pédagogique

1 Course Introduction

Introductions and course logistics
Course objectives

2 VMware Virtual Cloud Network and NSX-T Data Center

Introduce VMware's Virtual Cloud Network vision
Discuss NSX-T Data Center solutions, use cases, and benefits
Explain NSX-T Data Center architecture and components
Describe VMware NSXTM product portfolio and features
Explain the management, control, data, and consumption planes and function

3 Deployment Preparing the NSX-T Data Center Infrastructure

Describe NSX Management Cluster
Deploy VMware NSXTM Manager™ nodes on VMware ESXi and KVM hypervisors
Navigate through the NSX Manager UI
Explain data-plane components such as N-VDS, transport nodes, transport zones, profiles, and more
Perform transport node preparation and establish the data center infrastructure
Verify transport node status and connectivity

4 NSX-T Data Center Logical Switching

Introduce key components and terminology in logical switching
Describe the function and types of L2 segments
Explain tunneling and the GENEVE encapsulation
Configure logical segments and attach hosts using NSX Manager UI
Describe the function and types of segment profiles
Create segment profiles and apply them to segments and ports
Explain the function of MAC, ARP, and TEP tables used in packet forwarding
Demonstrate L2 unicast packet flow
Explain ARP suppression and BUM traffic handling

5 NSX-T Data Center Logical Routing

Describe the logical routing function and use cases
Introduce the two-tier routing architecture, topologies, and components
Explain the Tier-0 and Tier-1 Gateway functions
Describe the logical router components : Service Router and Distributed Router
Discuss the architecture and function of VMware NSXTM Edge™ nodes

Qualification Intervenant-e-s

Consultant formateur certifié

Discuss deployment options of NSX Edge nodes
Configure NSX Edge nodes and create NSX Edge clusters
Configure Tier-0 and Tier-1 Gateways
Examine the single-tier and multitier packet flow
Configure static routing and dynamic routing
Enable ECMP on Tier-0 Gateway
Describe NSX Edge HA, failure detection, and failback modes

6 NSX-T Data Center Bridging

Describe the function of logical bridging
Discuss the logical bridging use cases
Compare routing and bridging solutions
Explain the components of logical bridging
Create bridge clusters and bridge profiles

7 NSX-T Data Center Security

Introduce the NSX-T Data Center security approach and model
Describe the micro-segmentation benefits and use cases
Describe the Distributed Firewall architecture, components, and function
Configure Distributed Firewall sections and rules
Describe the Gateway Firewall architecture, components, and function
Configure Gateway Firewall sections and rules
Describe URL analysis and distributed intrusion system importance and use-cases
Describe the service insertion functionality for eastwest and north-south security
Discuss the integration and benefits of partner security solutions with NSX-T Data Center

8 NSX-T Data Center Services

Describe NSX-T Data Center services
Explain and configure Network Address Translation (NAT) and NAT 64
Explain and configure DNS and DHCP services
Describe the load-balancing function, topologies, components, and use cases
Configure L4-L7 load balancing
Discuss the IPSec VPN and L2 VPN function and use cases
Configure IPSec VPN and L2 VPN using NSX Manager UI

9 NSX-T Data Center Monitoring

Explain the importance and functionality of VMware NSXTM IntelligenceTM
Navigate through the NSX Topology UI and identify the various key elements in the UI
Discuss the importance and use-cases of alarms and events

10 NSX-T Data Center User and Role Management

Describe the function and benefits of VMware Identity Manager in NSX-T Data Center
Integrate VMware Identity Manager with NSX-T Data Center
Integrate LDAP with NSX-T Data Center
Identify the various types of users, authentication policies, and permissions
Use role-based access control to restrict user access
Explain the built-in roles in VMware Identity Manager and role assignment to users

11 NSX-T Data Center Federation

Introduce the NSX-T Data Center Federation key concepts, terminology, and use-cases
Explain the onboarding process of NSX-T Data Center Federation
Describe the NSX-T Data Center Federation switching and routing functions
Describe the NSX-T Data Center Federation security concepts and routing functions



Méthodes et modalités d'évaluation

Questionnaire de positionnement Evaluation en cours de formation : mises en situation Evaluation de fin de formation : Cas pratique Bilan individuel des compétences acquises Questionnaire de satisfaction à chaud Attestation de fin de formation

Modalités d'Accessibilité

Nous consulter



Durée

35.00 Heures

5

Jours

Effectif

De 3 à 8 Personnes



Tarifs (net de taxes)

Inter (Par personne) :

3 850.00 €



Contactez-nous !

Agnès BOSSER
Ingénieur d'affaires IT

Tél. : 0690237500
Mail : abosser@strategie-info.com