VMWA-34 - VMWARE NSX: INSTALL, CONFIGURE, MANAGE [V4.0]

Categoria: **VMware**

INFORMAZIONI SUL CORSO

Durata:	Categoria:	Qualifica Istruttore:	Dedicato a:	Produttore:
5 Giorni	VMware	VMware Certified Instructor	Professionista IT	VMware

OBIETTIVI

By the end of the course, you should be able to meet the following objectives:
- Describe the architecture and main components of NSX
- Explain the features and benefits of NSX
- Deploy the NSX Management cluster and VMware NSX® Edge™ nodes
- Prepare VMware ESXi™ hosts to participate in NSX networking
- Create and configure segments for layer 2 forwarding
- Create and configure Tier-0 and Tier-1 gateways for logical routing
- Use distributed and gateway firewall policies to filter east-west and north-south traffic in NSX
- Configure Advanced Threat Prevention features
- Configure network services on NSX Edge nodes
- Use VMware Identity Manager™ and LDAP to manage users and access
- Explain the use cases, importance, and architecture of Federation

PREREQUISITI

- Good understanding of TCP/IP services and protocols
- Knowledge and working experience of computer networking, including switching and routing technologies (L2 through L3) and L2 through L7 firewall
- Knowledge and working experience with VMware vSphere® environments
- Knowledge and working experience with Kubernetes or VMware vSphere® with VMware Tanzu® environments

CONTENUTI

1 Course Introduction
- Introductions and course logistics
- Course objectives

2 VMware Virtual Cloud Network and VMware NSX
- Introduce the VMware Virtual Cloud Network vision
- Describe the NSX product portfolio
- Discuss NSX features, use cases, and benefits

- Explain NSX architecture and components
- Explain the management, control, data, and consumption planes and their functions.

3 Preparing the NSX Infrastructure
- Deploy VMware NSX® ManagerTM nodes on ESXi hypervisors
- Navigate through the NSX UI
- Explain data plane components such as N-VDS/VDS, transport nodes, transport zones, profiles, and more
- Perform transport node preparation and configure the data plane infrastructure
- Verify transport node status and connectivity
- Explain DPU-based acceleration in NSX
- Install NSX using DPUs

4 NSX 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 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 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 NSX Edge nodes
- Discuss deployment options of NSX Edge nodes
- Configure NSX Edge nodes and create NSX Edge clusters
- Configure Tier-0 and Tier-1 gateways
- Examine single-tier and multitier packet flows
- Configure static routing and dynamic routing, including BGP and OSPF
- Enable ECMP on a Tier-0 gateway
- Describe NSX Edge HA, failure detection, and failback modes
- Configure VRF Lite

6 NSX 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 Firewalls
- Describe NSX segmentation
- Identify the steps to enforce Zero-Trust with NSX segmentation
- Describe the Distributed Firewall architecture, components, and function

-Configure Distributed Firewall sections and rules

-Configure the Distributed Firewall on VDS

-Describe the Gateway Firewall architecture, components, and function

-Configure Gateway Firewall sections and rules

8 NSX Advanced Threat Prevention

-Explain NSX IDS/IPS and its use cases

-Configure NSX IDS/IPS

-Deploy NSX Application Platform

-Identify the components and architecture of NSX Malware Prevention

-Configure NSX Malware Prevention for east-west and north-south traffic

-Describe the use cases and architecture of VMware NSX® Intelligence™

-Identify the components and architecture of VMware NSX® Network Detection and Response™

-Use NSX Network Detection and Response to analyze network traffic events.

9 NSX Services

-Explain and configure Network Address Translation (NAT)

-Explain and configure DNS and DHCP services

-Describe VMware NSX® Advanced Load Balancer™ architecture, components, topologies, and use cases.

-Configure NSX Advanced Load Balancer

-Discuss the IPSec VPN and L2 VPN function and use cases

-Configure IPSec VPN and L2 VPN using the NSX UI

10 NSX User and Role Management

-Describe the function and benefits of VMware Identity Manager™ in NSX

-Integrate VMware Identity Manager with NSX

-Integrate LDAP with NSX

-Identify the various types of users, authentication policies, and permissions

-Use role-based access control to restrict user access

-Explain object-based access control in NSX

11 NSX Federation

-Introduce the NSX Federation key concepts, terminology, and use cases.

-Explain the onboarding process of NSX Federation

-Describe the NSX Federation switching and routing functions.

-Describe the NSX Federation security concepts.

INFO

Esame: 2V0-41.24 - VMware NSX 4.x Professional --- VMware Certified Professional - Network Virtualization (VCP-NV)

Materiale didattico: Materiale didattico ufficiale VMware in formato digitale

Costo materiale didattico: incluso nel prezzo del corso a Calendario

Natura del corso: Operativo (previsti lab su PC)