Publication date : 06/05/2024

Course : VMware NSX: Installing Configure Manage V4 (NSXICM4)

Official course, exam preparation 2V0-41.20

Practical course - 5d - 35h00 - Ref. VMZ
Price : 4850 € E.T.

ActionCo

Formation éligible au financement Atlas

"Open only to ATLAS members registering via CampusAtlas as part of collective actions." This training course will give you a comprehensive understanding of how to install, configure, and manage a VMware NSX® environment. It covers the main features and functionalities of NSX 4.0.0.1 and NSX 4.0.1, including global infrastructure, logical switching, logical routing, networking and security services, firewalls, and advanced threat prevention, etc.

Teaching objectives

At the end of the training, the participant will be able to:

- Describe NSX architecture and main components
- Explain the features and benefits of NSX
- Deploy NSX Management cluster and VMware NSX® Edge nodes
- Preparing VMware ESXi™ hosts to participate in NSX networking
- Create and configure segments for Layer 2 transfer
- Create and configure Level 0 and Level 1 gateways for logical routing
- Use distributed firewall and gateway policies to filter east-west and north-south traffic in NSX
- Configure advanced threat prevention features
- Configuring network services on NSX Edge nodes
- Use VMware Identity Manager™ and LDAP to manage and access users
- Explain the use cases, importance and architecture of Federation

Intended audience

Experienced security administrators or network administrators.

PARTICIPANTS

Experienced security administrators or network administrators.

PREREQUISITES

Understanding of TCP/IP services and protocols. Knowledge and work experience with Kubernetes or VMware vSphere® with VMware Tanzu environments.

TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.
Assessment by the participant, at the end of the training course, of the skills acquired during the training course.
Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.
At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.
An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Prerequisites

Understanding of TCP/IP services and protocols. Knowledge and work experience with Kubernetes or VMware vSphere® with VMware Tanzu environments.

Practical details

Teaching methods

French-language course facilitation. Official course material in English, in digital format. Good understanding of written English.

Course schedule

1 VMware Virtual Cloud Network and VMware NSX

- Present the VMware Virtual Cloud Network vision.
- Describe the NSX product portfolio.
- Discuss the features, use cases and benefits of NSX.
- Describe NSX architecture and components.
- Describe management, control, data and consumption plans and their functions.

2 Preparing NSX infrastructure

- Deploy VMware NSX® ManagerTM nodes on ESXi hypervisors.
- Navigate the NSX user interface.
- Describe N-VDS/VDS data plan components, transport nodes, transport zones, profiles.
- Prepare the transport node and configure the data plane infrastructure.
- Check transport node status and connectivity.
- Describe DPU-based acceleration in NSX.
- Install NSX using DPU.

3 NSX logic switching

- Introduce key components and terminology in logic switching.
- Describe the function and types of L2 segments.
- Describe tunneling and encapsulation in Geneva.
- Configure logical segments and host attachments using the NSX user interface.
- Describe the function and types of segment profiles.
- Create segment profiles and apply them to segments and ports.
- Describe the function of the MAC, ARP and TEP tables used in packet transfer.
- Demonstrate L2 unicast packet flows.
- Explain ARP suppression and BUM traffic management.

TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

4 NSX logical routing

- Describe the logical routing function and use cases.
- Present the architecture, topologies and components of two-level routing.
- Describe Level 0 and Level 1 gateway functions.
- Describe the logical router components: Service Router and Distributed Router.
- Describe the architecture and function of NSX Edge nodes.
- Describe the deployment options for NSX Edge nodes.
- Configure level 0 and level 1 gateways.
- Examine single-level and multi-level packet flows.
- Configure static and dynamic routing, including BGP and OSPF.
- Activate ECMP on a level 0 gateway.
- Describe NSX Edge HA, failure detection and rollback modes.
- Configure VRF Lite.

5 NSX Bridge

- Describe the logic bypass function.
- Discuss logical transition use cases.
- Compare routing and bridging solutions.
- Explain the components of logic bridging.
- Create bridge clusters and bridge profiles.

6 NSX Firewall

- Describe NSX segmentation.
- Identify the steps for applying Zero-Trust with NSX segmentation.
- Describe the architecture, components and function of a distributed firewall.
- Configure distributed firewall sections and rules.
- Configure distributed firewall on VDS.
- Describe the architecture, components and function of the gateway firewall.
- Configure gateway firewall sections and rules.

7 NSX Advanced Threat Prevention

- Describe NSX IDS/IPS and its use cases.
- Configure NSX IDS/IPS.
- Deploy NSX Application Platform.
- Identify NSX Malware Prevention components and architecture.
- Configure NSX Malware Prevention for east-west and north-south traffic.
- Describe the use cases and architecture of VMware NSX® Intelligence™.
- Identify components and architecture of VMware NSX® Network Detection and Response™.
- Use NSX Network Detection and Response to analyze network traffic events.

8 NSX Services

- Describe and configure network address translation (NAT).
- Describe and configure DNS and DHCP services.
- Describe the architecture, components, topologies and use cases of VMware NSX® Advanced Load Balancer™.
- Configure NSX Advanced Load Balancer.
- Discuss VPN IPSec and VPN L2 functions and use cases.
- Configure IPSec VPN and L2 VPN using the NSX user interface.

9 NSX user and role management

- Describe the functions and benefits of VMware Identity Manager™ in NSX.
- Integrate VMware Identity Manager with NSX.
- Integrate LDAP with NSX.
- Identify the different types of users, authentication strategies and authorizations.
- Use role-based access control to restrict user access.
- Explain object-based access control in NSX.

10 NSX Federation

- Introduce the key concepts, terminology and use cases of NSX Federation.
- Describe the NSX Federation integration process.
- Describe NSX Federation's switching and routing functions.
- Describe NSX Federation security concepts.

Options

Certification : 330 € HT

Successful completion of the 2V0-41.24 exam leads to VMware Certified Professional - Network Virtualization 2024 (VCP-NV 2024) certification.
Comment passer votre examen ?

The certification option comes in the form of a voucher or invitation that will allow you to take the exam at the end of the training course.

Dates and locations

REMOTE CLASS
2026 : 30 Mar., 22 June, 5 Oct., 14 Dec.

PARIS LA DÉFENSE
2026 : 30 Mar., 22 June, 5 Oct., 14 Dec.