VMware NSX Advanced Load Balancer: Install, Configure, Manage

ID NSXALBICM   **Prix** 5 250,– € (Hors Taxe)   **Durée** 5 jours

A qui s'adresse cette formation

Experienced system administrators or network administrators

Cette formation prépare à la/aux certifications

VMware Certified Professional – Network Virtualization 2024 (VCP-NV 2024)

Objectifs

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

- Describe NSX Advanced Load Balancer architecture
- Describe the NSX Advanced Load Balancer components and main functions
- Explain the NSX Advanced Load Balancer key features and benefits
- Deploy and configure NSX Advanced Load Balancer infrastructure within Private or Public Clouds leveraging Write and No Access Cloud Connectors
- Explain, deploy, and configure Service Engines
- Explain and configure Local Load Balancing constructors such as Virtual Services, Pools, Health Monitors, and related components
- Understand and modify application behavior leveraging Profiles, Policies, and DataScripts
- Configure advanced services such as Global Server Load Balancing
- Describe and leverage NSX Advanced Load Balancer REST API interfaces and related automation capabilities
- Describe and configure NSX Advanced Load Balancer application and infrastructure monitoring
- Gather relevant information and perform basic troubleshooting of applications leveraging built-in NSX Advanced Load Balancer tooling

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Course Introduction

- Introductions and course logistics
- Course objectives

Introduction to NSX Advanced Load Balancer

- Introduce NSX Advanced Load Balancer
- Discuss NSX Advanced Load Balancer use cases and benefits
- Explain NSX Advanced Load Balancer architecture and components
- Explain the management, control, data, and consumption planes and their respective functions

Virtual Services Configuration Concepts

- Explain Virtual Service components
- Explain Virtual Service types
- Explain and configure basic Virtual Service components such as Application Profiles, Network Profiles, Pools, and Health Monitors

Profiles and Policies

- Explain and deep dive on Advanced Virtual Service creation
- Explain and deep dive on Application Profiles and Types such as L4, DNS, Syslog, and HTTP
- Explain and configure advanced application HTTP Profile options
- Deep dive on Network Profiles and Types
- Explain and configure SSL Profiles and Certificates
- Explain and Configure HTTP and DNS policies

Pools Configuration Concepts

- Explain and deep dive on Pools configuration options
- Describe available Load Balancing algorithms
- Explain multiple Health Monitor types
- Explain multiple Persistence Profiles
- Explain and configure Pool Groups

Modifying Application Behavior

- Design and apply application solutions leveraging application profiles
- Design and apply application solutions leveraging Network and HTTP Policies and DataScripts
- Explain DataScript fundamentals
- Explain and leverage NSX Advanced Load Balancer analytics to understand application behavior

- Describe and configure Client SSL Certificate Validation
- Describe and configure Virtual Service DDoS, Rate Limiting, and Throttling capabilities
- Modify Network Profiles properties such as TCP connection properties
- Design and apply application solutions leveraging Persistence Profiles

NSX Advanced Load Balancer Infrastructure Architecture

- Deep dive on the management, control, data, and consumption planes and functions
- Describe Control Plane Clustering and High Availability
- Describe Controller Process Sharding
- Describe Controller Sizing
- Describe Service Engine CPU and NIC Architecture
- Explain Tenants
- Deep dive and configure properties of Service Engine Groups
- Explain Service Engine Group High Availability Modes
- Describe and configure Active/Standby High Availability Mode
- Describe and configure Elastic HA High Availability Mode (Active, N+M)
- Explain Service Engine Failure Detection and Self-Healing
- Describe Service Engine as a Router
- Deep dive on Virtual Service scale out options, such as Layer 2 (Native), Layer 3 (BGP), and DNS-based
- Explain Infrastructure Upgrade process

Introduction to Cloud Connectors

- Introduce Cloud Connectors
- Review Cloud Connector integration modes
- Introduce Cloud Connector types

Install, Configure, and Manage NSX ALB in No Access Clouds

- Explain No Access Cloud concepts
- Configure No Access Cloud integration
- Explain and Configure Linux Server Cloud
- Describe the Advanced Configuration options available in Bare-Metal (Linux Server Cloud)

Install, Configure, and Manage NSX ALB in VMware environments

- Introduce VMware integration options
- Explain and configure VMware No Access Cloud Connector
- Explain and configure VMware Write Access Cloud Connector
- Describe VMware Write with NSX-V Access Cloud Connector
- Describe VMware NSX-T integration

Install, Configure, and Manage NSX ALB in Public Clouds (AWS)

- Describe NSX Advanced Load Balancer Public Cloud integrations
- Explain and demonstrate AWS Public Cloud Integration
- Describe Azure Public Cloud Integration

DNS Foundations

- Review, discuss, and explain DNS fundamentals
- Describe NSX Advanced Load Balancer DNS and IPAM providers

Global Server Load Balancing

- Introduce Global Server Load Balancing Concepts and Benefits
- Explain and configure NSX Advanced Load Balancer infrastructure
- Explain and configure DNS Virtual Service components
- Explain and configure GSLB Service Engine Group
- Describe and configure GSLB Sites
- Explain and configure basic GSLB Services to include pools and health monitors
- Describe GSLB Service Load Balancing algorithms
- Explain and configure Data and Control Plane-based Health Monitors
- Describe GSLB Health Monitor Proxy

Troubleshooting

- Introduce Infrastructure and Application Troubleshooting Concepts
- Describe Control Plane and Data Plane-based Troubleshooting
- Explain Application Analytics and Logs
- Describe client logs analysis
- Explain Headers troubleshooting and Packet Capture mechanism
- Leverage CLI for detailed data plane troubleshooting
- Explain Service Engine Logs
- Explain Health Monitors troubleshooting
- Explain BGP session troubleshooting
- Describe Control Plane Troubleshooting, Clustering, and Cloud Connector issues

Monitoring NSX Advanced Load Balancer Solution

- Describe NSX Advanced Load Balancer Events
- Describe and configure NSX Advanced Load Balancer Alerts
- Describe NSX Advanced Load Balancer monitoring capabilities, leveraging SNMP, Syslog, and Email

Introduction to NSX ALB Programmability and Automation

- Introduce NSX Advanced Load Balancer REST API interface
- Describe REST API Object Schema
- Explain and interact with REST API interface, leveraging browser and command line utility
- Explain Swagger-based API documentation
- Review 3rd-party automation integrations

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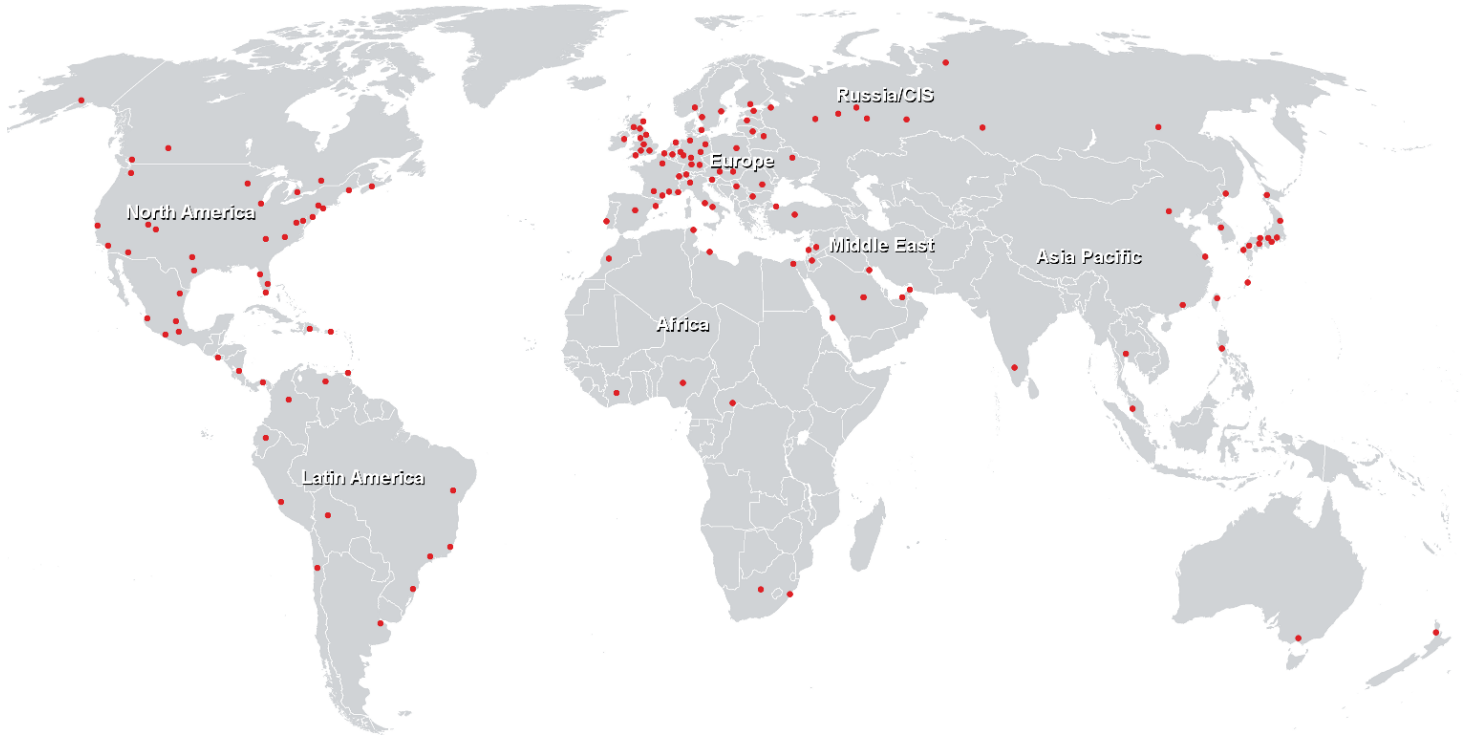
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