

# VMWA-19 - VMWARE NSX ADVANCED LOAD BALANCER: INSTALL, CONFIGURE, MANAGE [V21.X]

Categoria: **VMware**

## INFORMAZIONI SUL CORSO



**Durata:**  
5 Giorni



**Categoria:**  
VMware



**Qualifica Istruttore:**  
VMware Certified  
Instructor



**Dedicato a:**  
Professionista IT



**Produttore:**  
VMware

## OBIETTIVI

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

- Describe the 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 the NSX Advanced Load Balancer infrastructure within private or public clouds using Write and No-Access Cloud Connectors
- Explain, deploy, and configure Service Engines
- Explain and configure local load balancing constructs such as virtual services, pools, health monitors, and related components
- Explain and configure advanced virtual services and related concepts such as Subject Name Indication, Enhanced Virtual Hosting, and authentication of virtual services
- Explain and modify application behavior through profiles, policies, and DataScripts
- Describe Central licensing management using VMware NSX Advanced Load Balancer Enterprise with Cloud services (formerly Avi Pulse)
- Explain how to configure Role-Based Access Control (RBAC) in NSX Advanced Load Balancer
- Configure advanced services such as global server load balancing
- Describe how to use 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 that use built-in NSX Advanced Load Balancer tooling
- Identify the key features of VMware NSX Network Detection and Response

## PREREQUISITI

This course has no prerequisites.

## CONTENUTI

### 1 Course Introduction

- Introduction and course logistics

-Course objectives

## **2 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

## **3 Virtual Services Configuration Concepts**

- Explain virtual service components
- Explain virtual service types
- Explain and configure basic virtual service components such as application profiles and network profiles

## **4 Virtual Services Configuration Advanced Concepts**

- Explain the virtual service advanced components such as Wildcard VIP, Server Name Identification (SNI), and Enhanced Virtual Hosting (EVH)
- Explain the concept of virtual service VIP Sharing
- Explain different authentication mechanisms used for a virtual service such as LDAP, SAML, JSON Web Token, and OAUTH

## **5 Profiles and Policies**

- Explain application profiles and types such as L4, DNS, Syslog, HTTP, and VMware Horizon VDI
- Explain and configure advanced application HTTP profile options
- Describe network profiles and types
- Explain and configure SSL profiles and certificates
- Explain and configure HTTP, network, and DNS policies

## **6 Pools Configuration Concepts**

- Explain pools configuration options
- Describe the available load balancing algorithms
- Explain multiple health monitor types
- Explain multiple Persistence profiles
- Explain and configure pool groups

## **7 Modifying Application Behavior**

- Design and apply application solutions by using application profiles
- Design and apply application solutions by using network, HTTP policies, and DataScripts
- Explain DataScript fundamentals
- Explain and use 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 profile properties such as TCP connection properties
- Design and apply application solutions by using Persistence profiles

## **8 NSX Advanced Load Balancer Infrastructure Architecture**

- Explain management, control, data, and consumption planes and functions
- Describe control plane clustering and high availability
- Describe controller sizing and process sharing
- Describe Service Engine CPU and NIC architecture

- Explain tenants
- Configure properties of Service Engine groups
- Explain Service Engine group high availability modes
- Describe and configure active-standby high availability mode
- Explain Service Engine placement in multiple availability zones for public clouds
- Describe and configure elastic HA high availability mode (Active-Active, N+M)
- Explain Service Engine failure detection and self-healing
- Describe Service Engine as a router
- Explain virtual service scale-out options such as Layer 2 (Native), Layer 3 (BGP), and DNS-based
- Describe how to upgrade NSX Advanced Load Balancer

## **9 Introduction to Cloud Connector**

- Explain cloud connectors
- Review cloud connector integration modes
- List cloud connector types
- Review the different Service Engine image types in different ecosystems

## **10 Installing, Configuring, and Managing NSX Advanced Load Balancer in No-Orchestrator Cloud**

- Explain No-Access cloud concepts
- Configure No-Access cloud integration on bare metal
- Explain and configure Linux Server Cloud
- Explain and configure VMware No Orchestrator
- Describe the advanced configuration options available in bare metal (Linux Server Cloud)

## **11 Installing, Configuring, and Managing NSX Advanced Load Balancer in VMware Environment: Cloud Configuration**

- Introduce VMware integration options
- Explain and configure VMware Write Access Cloud Connector
- Explain NSX Advanced Load Balancer integration options in a VMware NSX environment
- Explain and configure NSX Cloud Connector for Overlay and VLAN-backed segments

## **12 AWS Cloud Configuration**

- Describe NSX Advanced Load Balancer public cloud integrations
- Explain different AWS components
- Explain and demonstrate AWS public cloud integration
- Deploy VMware NSX Advanced Load Balancer Controller, SEs, and virtual services in AWS Cloud
- Review Multi-AZ Support for virtual services in AWS cloud

## **13 GCP Cloud Configuration**

- Explain different GCP components
- Explain and demonstrate GCP public cloud integration
- Deploy NSX Advanced Load Balancer Controller, SEs, and virtual services in GCP cloud

## **14 Azure Cloud Configuration**

- Describe NSX Advanced Load Balancer public cloud integrations
- Explain different Microsoft Azure components
- Explain and demonstrate Azure public cloud integration
- Deploy NSX Advanced Load Balancer Controller, SEs, and virtual services in Azure Cloud

## **15 NSX Advanced Load Balancer Enterprise with Cloud Services (Avi Pulse)**

- Describe NSX Advanced Load Balancer public cloud services
- Explain different features of NSX Advanced Load Balancer Cloud Services
- Register the controller with Cloud Services

## **16 DNS Foundations**

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

## **17 Global Server Load Balancing (GSLB)**

- Introduce Global Server load balancing concepts and benefits
- Explain and configure the NSX Advanced Load Balancer infrastructure
- Explain and configure the 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 Server Load Balancing algorithms
- Explain and configure health monitors based on data plane and control plane
- Describe GSLB Health Monitor Proxy
- Explain GSLB Site-Cookie Persistence
- Explain the different GSLB replication methods

## **18 Role-Based Access Control (RBAC)**

- Introduce local authentication in NSX Advanced Load Balancer
- Introduce remote authentication in NSX Advanced Load Balancer
- Review the different types of remote authentication
- Explain granular RBAC using labels

## **19 NSX Advanced Load Balancer: Troubleshooting**

- Introduce infrastructure and application troubleshooting concepts
- Describe troubleshooting based on control plane and data plane
- Explain application analytics and logs
- Describe client logs analysis
- Explain headers troubleshooting and packet capture mechanism
- Describe how to use 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

## **20 Events and Alerts**

- Describe NSX Advanced Load Balancer events
- Describe and configure NSX Advanced Load Balancer alerts
- Describe NSX Advanced Load Balancer monitoring capabilities with SNMP, Syslog, and Email

## **21 Introduction to NSX Advanced Load Balancer Rest API**

- Introduce the NSX Advanced Load Balancer REST API interface
- Describe REST API Object Schema
- Explain and interact with REST API interface with browser and command-line utility
- Explain Swagger-based API documentation

- Review the different types of SDKs available in NSX Advanced Load Balancer
- Explain and configure VMware Write Access Cloud Connector
- Explain NSX Advanced Load Balancer integration options in the VMware NSX environment
- Explain and configure NSX Cloud Connector for Overlay and VLAN-backed segments
- Introduce VMware integration options

## 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)