

VMware NSX Advanced Load Balancer: Install, Configure, Manage

Course Overview

This five-day, fast-paced course provides comprehensive training to install, configure, and manage a VMware NSX® Advanced Load Balancer™ (Avi Networks) solution. This course covers key NSX Advanced Load Balancer (Avi Networks) features and functionality offered in the NSX Advanced Load Balancer 20.x release. Features include the overall infrastructure, virtual services and application components, global server load balancing, various cloud connectors, application troubleshooting, and solution monitoring. Hands-on labs provide access to a software-defined data center environment to reinforce the skills and concepts presented in the course.

Course Objectives

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 constructors such as virtual services, pools, health monitors, and related components
- Understand and modify application behavior through profiles, policies, and DataScripts
- 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

Target Audience

Experienced system administrators and network administrators

Course Delivery Options

- Classroom
- Live Online
- [Private Training](#)

Product Alignment

- NSX Advanced Load Balancer 20.x

Course Modules

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, Network Profiles

4 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

5 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

6 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

7 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/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

8 Introduction to Cloud Connector

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

9 Install, Configure and Manage NSX Advanced Load Balancer in No-Access Cloud

- Explain No Access Cloud concepts
- Configure No Access Cloud integration
- Explain and Configure Linux Server Cloud



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- Describe the Advanced Configuration options available in Bare-Metal (Linux Server Cloud)
- 10 Install, Configure and Manage NSX Advanced Load Balancer in VMware Environment: Cloud Configuration**
- 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
- 11 AWS Cloud Configuration**
- Describe NSX Advanced Load Balancer Public Cloud integrations
 - Explain and demonstrate AWS Public Cloud Integration
- 12 DNS Foundations**
- Review, discuss, and explain DNS fundamentals
 - Describe NSX Advanced Load Balancer DNS and IPAM providers
- 13 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
- 14 NSX Advanced Load Balancer: 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
- 15 Events and Alerts**
- 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
- 16 Introduction to NSX Advanced Load Balancer Rest API**
- 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

Contact

If you have questions or need help registering for this course, click [here](#).



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