

VMware NSX Advanced Load Balancer: Infrastructure and Application Automation

Module 1 Course Introduction

- Introductions and course logistics
- Course objectives

Module 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 functions

Module 3 Virtual Services Configuration Concepts

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

Module 4 Pools Configuration Concepts

- Explain and deep dive on Pool configuration options
- Describe multiple load balancing algorithms
- Explain multiple Health Monitor types
- Explain multiple Persistent profiles
- Explain and configure Pool Groups

Module 5 Leveraging NSX Advanced Load Balancer REST API

- Explain NSX Advanced Load Balancer automation vision
- Explain and introduce NSX Advanced Load Balancer REST API
- Describe NSX Advanced Load Balancer REST API methods and capabilities

- Describe NSX Advanced Load Balancer REST API session handling properties such authentication, API

versioning and tenancy model

- Deep dive on NSX Advanced Load Balancer REST API Object Model
- Explain and investigate NSX Advanced Load Balancer REST API leveraging browser and command line

utilities

- Explain and interact with NSX Advanced Load Balancer REST API leveraging browser, Postman and Curl

- Explain Swagger-based API Documentation

- Explain and leverage NSX Advanced Load Balancer Inventory API

- Explain and leverage NSX Advanced Load Balancer methods such as GET, PUT, POST and PATCH and

associated queries, filters and parameters

- Deep dive on NSX Advanced Load Balancer PATCH method
- Explain and leverage NSX Advanced Load Balancer Analytics API
- Explain and leverage NSX Advanced Load Balancer MACRO API

Module 6 NSX Advanced Load Balancer Software-Defined Kits (SDKs) and ControlScripts

- Introduce NSX Advanced Load Balancer SDKs
- Describe, install and leverage NSX Advanced Load Balancer Python SDK
- Deep dive on NSX Advanced Load Balancer Python SDK
- Describe and leverage Golang SDK
- Leverage NSX Advanced Load Balancer open source resources such as Github, etc to accelerate SDKs

adoption

- Describe NSX Advanced Load Balancer Events and Alerts framework
- Introduce ControlScripts foundations
- Leverage ControlScripts to automate configuration changes and alerts remediation

Module 7 Automating NSX Advanced Load Balancer Application Delivery Services with Ansible and Terraform

- Introduce NSX Advanced Load Balancer Configuration Orchestration and Management vision

- Introduce and explain Ansible foundations
- Describe Ansible and NSX Advanced Load Balancer Ansible capabilities
- Deep dive and implement NSX Advanced Load Balancer Ansible Core configuration modules (avinetworks/avisdk)
- Deep dive and implement Ansible NSX Advanced Load Balancer Declarative configuration role (avinetworks/aviconfig)
- Leverage Swagger NSX Advanced Load Balancer REST API models to develop and implement Ansible

playbooks

- Explain application delivery configuration automation approach and models
- Apply configuration automation models with Ansible
- Introduce and explain Terraform foundations
- Describe Terraform and NSX Advanced Load Balancer Terraform capabilities
- Deep dive and implement NSX Advanced Load Balancer Terraform Provider
- Leverage Swagger NSX Advanced Load Balancer REST API models to develop and implement Terraform

plans

- Apply configuration automation models with Terraform

Module 8 Automating NSX Advanced Load Balancer Infrastructure with Ansible and Terraform

- Introduce NSX Advanced Load Balancer infrastructure Automation vision
- Describe infrastructure deployment approach and capabilities
- Describe Ansible and NSX Advanced Load Balancer Ansible Infrastructure deployment approach and

capabilities

- Describe Terraform and NSX Advanced Load Balancer Terraform deployment approach and capabilities
- Leverage Terraform to deploy Controllers and perform system configuration, including control plane cluster

setup

- Leverage Terraform to provision Cloud, Service Engine Groups and Service Engine components
- Describe and leverage Ansible roles to deploy Controllers and perform initial system configuration,

including control plane cluster setup

- Leverage Ansible declarative and core roles to provision Cloud, Service Engine Groups and Service

Engine components

- Describe and implement combined Terraform + Ansible model to streamline NSX Advanced Load Balancer

solution deployment