Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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VMware NSX Advanced Load Balancer: Infrastructure and Application Automation

CODE:	LENGTH:	PRICE:
VMW_NSXALBIAA	24 Hours (3 days)	€2,250.00

Description

This three-day, fast-paced course provides comprehensive training on how to automate infrastructure and application components of VMware NSX Advanced Load Balancer (Avi Networks) solution. This course covers key application delivery features of NSX Advanced Load Balancer (Avi Networks) features and functionality offered in VMware NSX Advanced Load Balancer 18.2 release and focuses on how to plan and implement automation of infrastructure and application components leveraging REST API, SDK or automation solutions such as Ansible, Terraform or similar. Access to a software-defined data center environment is provided through hands-on labs to reinforce the skills and concepts presented in the course.

Objectives

By the end of the course, you should be able to meet the following objectives:
• Describe VMware NSX Advanced Load Balancer architecture
• Describe VMware NSX Advanced Load Balancer components and main functions
• Explain VMware NSX Advanced Load Balancer key features and benefits
• Describe and leverage VMware NSX Advanced Load Balancer REST API
• Describe and leverage VMware NSX Advanced Load Balancer SDKs with extended focus on Python SDK
• Leverage REST API and SDK features and functions to provision application delivery components
• Describe and leverage VMware NSX Advanced Load Balancer Ansible and Terraform integrations
• Describe and leverage VMware NSX Advanced Load Balancer Github, Docker (avinetworks/avitools), Ansible Galaxy and other open source resources to accelerate the automation planning and implementation
• Leverage VMware NSX Advanced Load Balancer Ansible and Terraform integrations to provision infrastructure components
• Leverage VMware NSX Advanced Load Balancer Ansible and Terraform integrations to automate and streamline application delivery services provisioning

Audience

Experienced system administrators or network administrators, software and DevOps engineers

Programme

1 Course Introduction • Introductions 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 functions 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
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 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
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
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
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

Session Dates

On request. Please contact us

Additional Information

This training is also available as onsite training. Please contact us to find out more.