VMware vRealize Automation Advanced Features and Troubleshooting [V8.x]

Duration 5 Days

COURSE DESCRIPTION

This is a five-day course that is a follow-on to the VMware vRealize® Automation™ Install, Configure, Manage course. In this course, you go deeper into using the advanced features of vRealize Automation to deploy user systems and interface vRealize Automation with other platforms. The course covers deploying and enterprise level cluster environment using VMware vRealize® Suite Lifecycle Manager™.

COURSE OBJECTIVES

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

- Create and configure advanced blueprints with complex YAML and cloudConfig.
- Use vRealize Automation advanced blueprints to deploy an actual 2-tier DB-Server using MySQL and phpMyAdmin.
- Practice troubleshooting techniques with advanced YAML blueprints in vRealize Automation.
- Use advanced VMware NSX-TTM Data Center networking features including NAT, routed networks, load balancers, security groups, and tags.
- Configure subscriptions to use VMware vRealize® Orchestrator™ workflows and create custom actions using XaaS.
- Configure and use ABX actions in vRealize Automation subscription
- Describe various options to integrate vRealize Automation with Kubernetes
- Create VMware Code Stream™ pipelines.
- Configure vRealize Automation to integrate with configuration management tools such as Puppet and Ansible.
- Create and use Ansible playbooks that integrate with vRealize Automation.
- Configure security certificates in vRealize Automation from external Certificate Authorities.
- Configure VMware NSX® Advanced Load Balancer™ to deploy VMware Identity Manager™ and vRealize Automation clusters.
- Describe the steps involved in VMware Identity Manager and vRealize Automation cluster deployment and scale-out.
- Describe the clustered deployment architecture, including Kubernetes pods and services.
- Use vracli commands, log files, and VMware vRealize® Log Insight™ to troubleshoot vRealize Automation and vRealize Automation deployments.

COURSE OUTLINE

1 Course Introduction

- Introductions and course logistics
- Course objectives

2 Advanced Blueprints

- Use advanced YAML and cloudConfig to deploy a functioning 2-tier application with a phpMyAdmin front-end server and a MySQL database server
- Use troubleshooting techniques to debug problems in advanced YAML blueprints

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- List the log files that can aid in troubleshooting blueprint deployment

3 Advanced Networking

- Use NSX-T advanced features in blueprints
- Interfacing to IPAMs
- Use NSX-T Data Center NAT in blueprints
- Use NSX-T Data Center routed networks
- Use NSX-T Data Center load balancers
- Use NSX-T Data Center security groups
- Use tags with NSX-T Data Center network profiles

4 Using vRealize Orchestrator Workflows for Extensibility

- Creating Day-2 Actions with vRealize Orchestrator workflows
- Troubleshoot vRealize Orchestrator cluster issues
- Use vRealize Orchestrator to add computer objects to Active Directory when vRealize Automation deploys blueprints
- Use a tagging approach to vRealize Orchestrator workflows
- Use dynamic forms with vRealize Orchestrator

5 Using ABX Actions

- Determine when to use ABX and when to use vRealize Orchestrator
- Using ABX to create day-2 Actions
- Calling PowerShell from ABX

6 Kubernetes Administration

- Define basic Kubernetes terminologies such as pod, service, and deployment
- List various options to integrate vRealize Automation with Kubernetes
- Connect to an existing native Kubernetes cluster
- Integrate Kubernetes with VMware® Pivotal Container Service

7 Code Stream Administration

- Create and use CI/CD pipelines
- Use the Code Stream user interface
- Add states and tasks to a Code Stream pipeline

8 Integrating vRealize Automation with GitLab

- Define Git, GitLab, and GitHub
- Configure GitLab to support vRealize Automation blueprints
- Integrate vRealize Automation with GitLab
- Manage blueprints using GitLab source control

9 Configuration Management

- Describe the use case of Ansible and Ansible Tower
- Connect to Ansible Tower
- Use Ansible playbooks
- Use Puppet in configuration management

10 Clustered Deployment

- Use vRealize Suite Lifecycle Manager in a clustered deployment

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- Configure External Certificates
- Configure NSX-T Data Center load balancer
- Install or scale out VMware Identity Manager to support High Availability
- Install or scale vRealize Automation using clustered deployment

11 Clustered Deployment Architecture

- List of Kubernetes Pods
- The vRealize Automation Kubernetes architecture
- Relationship of Kubernetes pods to services
- Logs and their locations
- Blueprint deployment workflow with Kubernetes service interaction
- Backup strategies and potential problems

12 Troubleshooting vRealize Automation

- vracli commands and when to use them
- Check the status of Kubernetes pods and services
- Correct the state of pods and services
- Diagnose and solve vRealize Automation infrastructure problems
- Diagnose and solve vRealize Automation failures to deploy blueprints and services
- Use vRealize Log Insight to troubleshoot

WHO SHOULD ATTEND

Experienced system administrators and system integrators responsible for using the advanced features of vRealize Automation in enterprise deployments.

PREREQUISITES

This course requires completion of the following course:

- VMware vRealize Install Configure Manage [V8.x]

Experience working at the command line is helpful.

This course requires that a student be able to perform the following tasks with no assistance or guidance before enrolling in this course:

- Create VMware vCenter Server® objects, such as data centers and folders
- Create a virtual machine using a wizard or a template
- Modify a virtual machine's hardware
- Migrate a virtual machine with VMware vSphere® vMotion®
- Migrate a virtual machine with VMware vSphere® Storage vMotion®
- Configure and manage a VMware vSphere® DRS cluster with resource pools.
- Configure and manage a VMware vSphere® High Availability cluster.
- Create and deploy a simple blueprint in vRealize Automation 8.x
- Use cloudConfig in vRealize Automation blueprints
- Configure infrastructure in vRealize Automation 8.x

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