

# VMware vRealize Automation: Install, Configure, Manage



## Course Description

During this five-day course, you focus on installing, configuring, and managing VMware vRealize® Automation™. You learn about how vRealize Automation can be used to automate the delivery of virtual machines, applications, and personalized IT services across different data centers and hybrid cloud environments.

The course covers how to manage both on-premise systems and cloud services. The course covers how vRealize Automation Service Broker can aggregate content in native formats from multiple clouds and platforms into a common catalog.

This course also covers interfacing vRealize Automation with other systems using VMware vRealize® Orchestrator™ and how to use vRealize Automation to manage Kubernetes systems and leverage other systems. The course also covers integrating with Terraform and using SaltStack as a configuration management tool.

This course makes heavy use of hands-on labs. Students can run 39 labs during the 5-day course.

## Course Duration:

5 days

## Prerequisites:

This course requires completion of one of the following courses:

- VMware vSphere: Install, Configure, Manage
- VMware vSphere: Fast Track

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 vSphere DRS cluster with resource pools.
- Configure and manage a VMware vSphere® High Availability cluster.

If you cannot perform all of these tasks, VMware recommends that you complete one of the prerequisite courses before enrolling in VMware vRealize Automation: Install, Configure, Manage.

## Objectives:

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

- Describe the vRealize Automation architecture and use cases in cloud environments
- Manage vRealize Automation entities on VMware and third-party virtual and cloud infrastructures
- Configure and manage Cloud Accounts, Projects, Flavor Mappings, Image Mappings, Network Profiles, Storage Profiles, Volumes, Tags, and Services

- Create, modify, manage, and deploy Cloud Templates
- Connect to a Kubernetes Cluster and manage namespaces
- Customize services and virtual machines with cloudConfig
- Configure and manage the Service Broker
- Configure and manage ABX actions, custom properties, event broker subscriptions, and vRealize Orchestrator workflows
- Integrate with vRealize Orchestrator
- Install vRealize Automation with Lifecycle Configuration Manager
- Describe Cloud Automation Services (Cloud Assembly and Code Stream).
- Integrate Cloud Assembly with Terraform and SaltStack
- Use logs and CLI commands to monitor and troubleshoot vRealize Automation

## Course Outline:

1. Course Introduction
  - Introductions and course logistics
  - Course objectives
2. vRealize Automation Overview and Architecture
  - Describe the purpose and functionality of vRealize Automation
  - Describe the vRealize Automation architecture
  - Describe the use of VMware Workspace ONE® Access™
  - Describe the relationship between Kubernetes clusters, containers, and vRealize Automation services
  - Describe CLI commands for vRealize Automation 8 cluster management
  - Describe Cloud Assembly
  - Describe Service Broker
  - Describe Code Stream
3. Installing vRealize Automation
  - List the different vRealize Automation deployment types
  - Describe the purpose of vRealize easy installer
  - Describe the vRealize Automation installation process
4. Authentication and Authorization
  - Identify the steps involved in integrating Workspace One with Active Directory
  - Describe features of Workspace One
  - Describe the user roles available in vRealize Automation
  - Identify the key tasks performed by each user role
  - Define custom roles
  - Configure branding and multitenancy
5. Basic Initial Configuration
  - Quickly create a basic configuration with a cloud account, cloud zone, project, flavor mapping, and image mapping.
6. VMware Cloud Templates
  - Configure and deploy a basic cloud template
  - Create cloud templates that can run on any cloud
  - Use cloudConfig to run commands, install software, and create users
  - Use YAML for inputs, variables, and conditional deployments
7. Tags and Storage Configuration
  - Configure tags
  - Describe different types of tags

- Manage tags
  - Configure storage profiles
  - Use tags and storage profiles
8. Integrating NSX-T Data Center
    - List the capabilities and use cases of NSX-T Data Center
    - Describe the NSX-T Data Center architecture and components
    - Integrate NSX-T Data Center with vRealize Automation
    - List the supported network profiles in vRealize Automation
    - Use NSX-T Data Center components to design a multitier application Cloud Template
    - Identify the network and security options available in design canvas
    - Create and manage on-demand networks and security groups
    - Configure NSX-T day 2 actions
  9. Integrating with Public Clouds
    - Configure and use VMware Cloud Foundation accounts
    - Configure and use an AWS cloud account
    - Configure and use an Azure cloud account
    - Configure and use a Google Cloud Platform cloud account
  10. Using Service Broker for Catalog Management
    - Release a VMware Cloud Template™
    - Define content source and content sharing
    - Define Service Broker policy enforcement
    - Use custom forms for catalog items
  11. vRealize Automation Extensibility
    - Describe Extensibility
    - Use event topics
    - Create a subscription
    - Call a vRealize Orchestrator workflow
    - Create ABX actions
  12. Using Code Stream
    - Introduction to Code Stream
    - The CI/CD process
    - Integrate GitLab with Code Stream and Cloud Assembly
    - Use Code Stream to install software
  13. Using Terraform
    - Integrate Cloud Assembly with Terraform
    - Use Terraform with a VMware Cloud Template
    - Use Terraform with Code Stream
  14. Using Kubernetes Clusters
    - Introduction to Kubernetes
    - Connect to an existing Kubernetes Cluster
    - Integrate VMware Tanzu™ Grid Integrated Edition
    - Create a Supervisor Namespace as a catalog item
  15. Using SaltStack for Configuration Management
    - Introduction SaltStack with vRealize Automation
    - Use SaltStack for software deployment
    - Use SaltStack for configuration management
    - Use SaltStack with event-driven orchestration

## 16. vRealize Automation Troubleshooting and Integration

- Location of logs
- Using Activity
- Monitoring deployment history
- Basic troubleshooting
- CLI commands
- Collecting logs (VAMI console)
- Integration with VMware vRealize® Log Insight™
- Integration with vRealize Operations
- Migrating vRealize Automation 7.x to 8

### Who Should Attend

Experienced system administrators and system integrators responsible for designing and implementing vRealize Automation