VMware vRealize Automation SaltStack Config: Deploy & Manage [V8.4]

Course code: VMW_ASCDM

This three-day, hands-on training course provides you with the advanced knowledge, skills, and tools to achieve competency in deploying and using VMware vRealize® Automation SaltStack® Config. SaltStack Config is a powerful software configuration management component available in VMware vRealize® Automation. With SaltStack Config you can easily define optimized, secure software states and enforce them across your entire environment, including virtualized, hybrid, or public cloud systems.In this course, you are introduced to configuration management and how SaltStack Config can install software, maintain system configurations, change systems immediately with scalable remote execution, and automatically correct configuration problems in deployed virtual applications.

Who is the course for

Experienced system administrators and cloud administrators

What we teach you

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

- Use VMware vRealize® Lifecycle Manager™ to install SaltStack Config
- Describe the architecture of SaltStack Config
- Deploy Salt minions from VMware vRealize® Automation™
- Create simple, human-readable infrastructure-as-code to provision and configure systems and software anywhere in your environment
- Configure roles and permissions for users and groups to manage and interact with SaltStack Config
- Manage systems with Jinja and YAML code
- Automatically enforce desired states across your entire IT footprint
- Keep critical software up to date
- Enact change immediately across your entire enterprise with fast, scalable remote execution
- Use SaltStack Config orchestration
- Create and manage reactors and beacons that enable self-healing configurations

Required skills

Before taking this course, you should have completed the VMware vRealize® Automation: Install, Configure, Manage [V8.3] course.

You should also have the following understanding or knowledge:

- Good understanding of managing and working with various Linux and Windows operating systems
- Knowledge and working experience of VMware vSphere® environments

Course outline

1 Course Introduction

- Introductions and course logistics
- Course objectives

2 SaltStack Config Overview and Architecture

- Describe the purpose of SaltStack Config
- Define vRealize Automation and its services
- Define SaltStack SecOps
- SaltStack Config deployment types
- Components of SaltStack Config and their roles

3 Installing SaltStack Config

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- SaltStack Config installation from vRealize Suite Lifecycle Manager
- Accessing SaltStack Config console
- Salt minion types
- Installing Salt minion manually
- Installing Salt minion using cloudConfig
- Accepting minion keys

4 SaltStack Config Security

- Overview of vRealize Automation roles
- Directory service connections
- Synchronizing with a directory service
- Editing directory service connections
- Deleting directory service connections
- Creation and management of local users
- Roles and permissions
- Advanced permissions

5 Targeting Minions

- Configuring minion attributes, grains, and custom grains
- Creating minion target groups based on grains, globs, regular expressions, complex matching, and lists

6 Remote Execution and Job Management

- Using modules, functions, and arguments
- Generating documentation on available modules and functions
- Creating, running, and scheduling jobs
- AD HOC jobs

7 SaltStack Config States

- Overview of SaltStack Config states
- State files management
- State modules
- Testing and verifying states
- Package management
- SLS files
- Top file
- Creating initial SLS files

8 SaltStack Config Pillar Data

- Pillar concepts
- Pillar configuration
- Using the get function
- Passing inline pillar data
- Managing users with SLS
- Using pillars in SaltStack states

9 SaltStack Config State Requisites and Declarations

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- ID compared to names
- State execution order
- Implicit orders
- Order declaration
- Requisite declarations
- Including other SLS files
- Altering states
- Using requisites and declarations to install and manage software

10 Using Jinja and YAML
- SaltStack renderers
- YAML SaltStack configuration file format
- YAML lists, dictionaries, and block structures
- Jinja basics
- Using the Jinja renderer
- Grains with Jinja
- Jinja conditionals, lists, and loops
- YAML dictionary
- Jinja dictionary

11 Managing Microsoft Windows Systems
- Software management
- Windows features and roles
- Local group policies
- Patching
- Windows software management
- Windows features management

12 SaltStack Config Orchestration
- SaltStack Config orchestration
- SaltStack Config orchestration advantages
- Executing orchestration
- Orchestration state files
- Orchestration calls
- Requisites in orchestration

13 Beacons and Reactors
- Beacons
- Beacons configuration
- Beacon state modules
- SaltStack Config event bus
- Reactors
- Reactors configuration
- Reactors state Files
- Orchestration with beacons and reactors

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