VMware vRealize Automation
Modern infrastructure automation platform

What is VMware vRealize Automation?
VMware vRealize Automation™ is a modern infrastructure automation platform with event-driven state management. It is designated to help organizations control and secure self-service hybrid clouds, multi-cloud automation with governance, and DevOps-based infrastructure delivery. With vRealize Automation, internal IT operations, DevOps engineers, developers and the lines of business get the environments and resources that they need faster with a public cloud–like user experience, while IT maintains security, compliance and control. This means that customers benefit from increased scalability, speed, flexibility and reliability as they reduce the complexity of their IT environment, streamline IT processes, and deliver a DevOps-ready automation platform.

Key benefits
Consistent automation across clouds and data centers enables:

- Faster time to market – Offload manual tasks with advanced workflows and agile templating.
- Ease of use – Rapidly set up and manage multi-cloud environments throughout the lifecycle with an intuitive, self-service consumption experience.
- Security and control – Establish consistent policies across multi-cloud environments and strengthen infrastructure with native compliance management, flexible guardrails, and vulnerability remediation.
- Accelerated innovation – Expedite the adoption of new, cloud native technologies with a future-ready platform built on infrastructure as code (IaC) and DevOps principles.

Modern infrastructure automation platform
Easy, fast to set up and manage a secure multi-cloud environment
vRealize Automation helps customers establish an intelligent approach to automated lifecycle management by attaining end-to-end lifecycle management with VMware vRealize Suite Lifecycle Manager™. The process includes installation, configuration, upgrading and patching, all based on best practices and VMware Validated Designs™. vRealize Automation is designed to provide immediate value for deep, native integrations across the VMware stack with VMware vRealize Operations™ and self-service cloud setup for VMware Cloud Foundation™ and VMware Cloud™. Utilize the Cloud Resource Center for the
Customer use cases

- Self-service cloud – Evolve your VMware data center to private or hybrid cloud infrastructure based on VMware Cloud Foundation, VMware Cloud, and VMware Cloud Director®.
- DevOps for infrastructure – Enable a powerful IaC platform with support for infrastructure pipelining and iterative development.
- Kubernetes automation – Automate Kubernetes cluster and namespace management and support for vSphere with Tanzu.
- Network automation – Automate NSX to enable faster deployment and complete lifecycle automation of traditional and modern applications with networking and security services.
- Security operations – Harness event-driven automation to deliver full-service, closed-loop IT system compliance enforcement and vulnerability remediation.

management of all discovered, onboarded and provisioned deployments across compute, storage, networking and security.

Self-service provisioning with consistent compliance, policy and control

End users can ask for comprehensive IT services through a common, self-service product catalog that aggregates all services, templates and images from multiple clouds and platforms, including native public cloud services. With fine-grained policy management in vRealize Automation, admins can apply predefined and custom roles, policies and approval flows to projects and organizations to provide the desired level of access for all internal users. For identity management, vRealize Automation provides native integration with VMware Workspace ONE® Access™ and Microsoft Active Directory.

Self-service automation across multi-cloud environments

To optimize infrastructure workload deployments, the VMware Cloud Templates™ designer allows users to model business-critical IT services by using a visual canvas with a drag-and-drop interface. Templates can also be defined through IaC using YAML/JSON formats. Cloud-agnostic templates can be deployed quickly and effortlessly to any endpoints based on predefined policies. Enhanced multi-cloud support allows users to embed native public cloud services constructs into templates that can be deployed to any public cloud endpoint.

Infrastructure as code and Kubernetes automation

vRealize Automation is a powerful DevOps platform that supports IaC, infrastructure pipelining, and seamless integrations with native state management via vRealize Automation SaltStack® Config and third-party tools, such as Ansible, Puppet and Terraform. Discover the native SaltStack configuration automation via modules for VMware Cloud, VMware vSphere®, and VMware NSX®. Leverage SaltStack and VMware Carbon Black Cloud™ integration to combine intelligent vulnerability insight from VMware Carbon Black Cloud Workload™ with the powerful IT automation from vRealize Automation SaltStack SecOps. The release pipeline management is automated with VMware Code Stream™, while increased coverage for infrastructure and app pipelines is offered through the easy-to-use, self-service catalog. Enhanced visibility and analytics provide an end-to-end view of all pipelines and their current status. In addition, vRealize Automation provides Kubernetes infrastructure automation capabilities. It provides vSphere with VMware Tanzu® integration, enabling cloud admins to create Kubernetes environments based on vSphere. It also empowers DevOps teams to request vSphere with VMware Tanzu Kubernetes Grid™ clusters in a self-service fashion, either via VMware Cloud Templates or the VMware Service Broker™ self-service catalog interface.
vRealize Automation components

VMware Cloud Assembly
VMware Cloud Assembly™ is a multi-cloud provisioning service. For virtualized data center infrastructure based on VMware Cloud Foundation, it offers the ability to create a private cloud. VMware Cloud Assembly provides a cloud API layer utilized by the templating engine. It also supports extensibility mechanisms for private cloud through VMware vRealize Orchestrator™ workflows and event-broker subscriptions.

VMware Service Broker
VMware Service Broker aggregates content from multiple resources and platforms, including VMware Cloud Assembly, vRealize Orchestrator, and native public clouds, into a common product catalog. It provides a self-service model with flexible, policy-based guardrails for governance. Enable a federated catalog by leveraging vRealize Automation Cloud™ for on-premises instances.

VMware Code Stream
VMware Code Stream automates the application and infrastructure delivery process with release pipeline management, including visibility and analytics into active pipelines and their status for troubleshooting. It allows DevOps teams to leverage existing tools and processes with out-of-the-box integration.

VMware vRealize Orchestrator
vRealize Orchestrator simplifies and automates complex data center infrastructure tasks, delivering consistent remediation of issues, extensibility and fast service delivery.

VMware vRealize Automation SaltStack Config
SaltStack Config can easily define optimized, compliant software states and enforce them across your entire environment—virtualized, hybrid or public cloud—with powerful, intuitive configuration automation.