INTRODUCTION

Big enterprises are heterogeneous and different teams use different tools. The skills and knowledge required to manage each ‘toolset silo’ are very different. And while each team should be allowed to choose the tools that make them the most productive, every additional cloud account becomes an extra challenge for the IT operations team. Complexity increases exponentially, the cloud bill sky-rockets and the company finds itself exposed to security and operational risks. Someone needs to keep tabs and establish the guardrails that will get this situation under control.

vRealize Automation Cloud for partners consists of VMware Cloud Assembly, VMware Service Broker and VMware Code Stream. vRealize Automation Cloud makes it easy and efficient for IT developers to get what they need to build and deploy applications.

It provides a unified management solution across clouds, whether VMware-powered or public. Based on modern Infrastructure-as-Code (IaC) and DevOps principles, it empowers agility and collaboration across tenant teams and functions while supplying providers with checks and controls to contain cost and risk exposure. It offers capabilities on service brokerage, cloud governance, workload orchestration, topology composition, workflow automation and CI/CD pipelines for infrastructure and application delivery.

KEY BENEFITS

- Allows end customers to take advantage of multi-cloud resources to deploy applications with minimal friction
- Facilitates DevOps and automation across end customers
- Helps maintain governance and control to prevent resource sprawl
- Streamlines application delivery, enables cloud flexibility and choice, and controls costs
- Facilitates collaboration and increases agility between traditionally siloed groups, helping to further accelerate business innovation
- Accelerates time to market for cloud providers
- Enables data-driven insights so providers can base their strategy on customer satisfaction and use patterns

vRealize Automation Cloud for Service Providers

vRealize Automation Cloud enables automation of the multi-cloud experience for tenants and delivery of a policy-driven catalog

Define, Build, Deploy and Manage Across Clouds

vRealize Automation Cloud - Functional Overview

<table>
<thead>
<tr>
<th>Service Broker</th>
<th>Cloud Assembly</th>
<th>Code Stream</th>
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<tbody>
<tr>
<td>Aggregates native content from multiple clouds and platforms into a single catalog with role-based policies</td>
<td>Orchestrates and expedites infrastructure and application delivery in line with DevOps principles</td>
<td>Speeds software delivery and streamlines troubleshooting with release pipelines and analytics</td>
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- Service Broker: Multi-Cloud Catalog & Policy Definitions
- Cloud Assembly: Cloud API & Declarative Blueprints
- Code Stream: Continuous Delivery
Cloud Assembly

Cloud Assembly is VMware’s approach to building a declarative blueprinting and automation solution-enabling, Infrastructure-as-Code first experience between public (AWS / VMware Cloud on AWS, Azure, GCP) and private (vSphere) cloud endpoints. It is designed to act as a conduit to consuming services from multiple cloud environments, with public cloud given more priority within the platform. Its interface for Cloud Assembly is primarily focused on providing an ‘administrator’ view of the platform.

Service Broker

It enables providers to aggregate native content from multiple clouds and platforms into a single catalog with role-based policies. It is focused on exposing service provisioning to end users: primarily blueprints from Cloud Assembly and Amazon CloudFormation templates. Its interface is focused on the ‘User’ view of the platform.

Code Stream

It allows providers to help tenants speed software delivery and streamline troubleshooting with release pipelines and analytics. They can integrate development tools and automate code release. There are many possibilities to interact with virtually any system to make advanced pipelines for application and infrastructure delivery. Code Stream is mainly focused on the SRE/DevOps lead use cases.

CHALLENGES

Teams face several multi-cloud challenges that must be solved to achieve faster time-to-market and improved customer satisfaction, as well as increased throughput and business innovation capabilities. These challenges include*:

• Application and Infrastructure Automation: The proliferation, integration and growth of a distributed development footprint of traditional and modern applications across clouds as well as growth in the use of software-defined infrastructure

• Multi-cloud Service Brokering: The ability to manage services that originate from various cloud environments into a single, unified view; pre-existing compliance requirements and growing global security threats that seek entry points across large multi-cloud environments

• CI/CD Problem Identification and Resolution: Streamline problem identification across the automated CI/CD pipeline with analytics

*Source: IDC Technology Spotlight sponsored by VMware - Reduce Multi-Cloud Costs and Risks Through SaaS Automation and Management Capabilities
vRealize Automation Cloud enables automation of the multi-cloud experience for tenants and delivery of a policy-driven catalog

SOLUTION

vRealize Automation Cloud MSP Route to Market

vRealize Automation cloud is a policy-driven app catalog for end customers’ self-provisioning. Partners can leverage the benefits of vRealize Automation Cloud to provide their end-customers with access to self-service provisioning of development resources and templates, while simultaneously easing the complexity of managing multiple tenants with Cloud Partner Navigator.

Custom Blueprints with Infrastructure-as-Code

Partners can develop custom blueprints that can utilize components and services across multiple clouds (AWS, Azure, GCP, etc.) with versioning and support for cloud-agnostic components. Using the intuitive blueprinting engine in Cloud Assembly, providers can create custom blueprints for tenant application deployment, using components specific to each cloud endpoint (e.g., Lambda, RDS, etc.).

Custom Multi-Cloud App Catalog

Partners can develop and curate a custom catalog of applications for tenants with support for third-party cloud templates (e.g., AWS CloudFormation templates). Partners can build a custom catalog by pulling the custom blueprints created in Cloud Assembly and housing them alongside third party templates like AWS CFTs, ARM templates, etc.
vRealize Automation Cloud enables automation of the multi-cloud experience for tenants and delivery of a policy-driven catalog.

**Resource Governance**

Partners can apply resource governance and lifecycle management policies across clouds for tenants. Lease and Day-2 policies can also help providers dictate how long deployments live, and which users can terminate them. They can allow tenants to use a catalog of apps, deploy resources in a self-service manner, and provide them with the Code Stream CI/CD pipeline for E2E dev infra support. Enables connection to public and private cloud endpoints.

**Why vRealize Automation Cloud**

**Value Proposition – MSP Program for vRealize Automation Cloud**

<table>
<thead>
<tr>
<th>What’s in it for Partners?</th>
<th>What’s in it for End Customers?</th>
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<tbody>
<tr>
<td>• Facilitate hybrid cloud consumption with self-service applications</td>
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<td>• Provide prepackaged content (e.g., blueprint catalog, workflows)</td>
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<td>• Enhance platform ecosystem with additional integrations</td>
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<tr>
<td>• Administer the vRealize Automation Cloud content and lifecycle for their end customers</td>
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<td>• Consistency and familiarity of VMware technologies for managing private and public clouds</td>
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<td>• No data center investment or maintenance</td>
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<td>• Global scale and reach</td>
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<td>• Be their customer’s trusted advisor for their cloud strategy</td>
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<td>• Own customer end to end and open up new monetization opportunities with value added services</td>
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<tr>
<td>• Contain risks and costs by managing their clouds centrally</td>
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<td>• Expedite time-to-value with prepackaged services and ease of sharing</td>
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<tr>
<td>• Innovate faster with rich access to native public cloud services</td>
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<td>• Future-proof their management strategy with SaaS form factor monthly feature updates and additions</td>
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**USE CASE #1:**

Dictating cloud accounts and VMware Cloud on AWS SDDCs utilized by tenants, and controlling resource sprawl and spend

**USE CASE #2:**

Adding custom blueprints to a master catalog, and adding policy based access for tenants to selected resources

**USE CASE #3:**

Providing end-customer with an end-to-end development infrastructure to help accelerate their enterprise agility

**USE CASES**

Below are some of the use cases for vRealize Automation Cloud on Cloud Partner Navigator:

- MSPs control what services and tiles are exposed to their tenants, so they can enable services according to the delivery model they decide.
- MSPs manage all infrastructure accounts and endpoints available to their tenants, so they can dictate which resources are utilized for specific applications and deployments.
- MSPs provide a specific catalog of blueprints for each of their tenants, so they can provision the appropriate infrastructure resources for their development work in a configuration-free manner.

**Key Cloud Automation Pillars**

- **Evolve your VMware datacenter into a true Hybrid Cloud**
- **Apply consistent orchestration & lifecycle across clouds**
- **Deploy infrastructure and applications continuously**
- **Manage Kubernetes clusters and container apps**
- **Self-Service Hybrid Cloud**
- **Multi-Cloud Automation with Governance**
- **Delivery with DevOps**

**vRealize Automation Cloud – focus areas**
vRealize Automation Cloud helps companies define, build, deploy and manage workloads across any major cloud. It is designed to address four core use cases:

**Self-Service Hybrid Cloud**

vRealize Automation Cloud helps customers create an internal IT experience at par with hyperscalers’ clouds. It provides the self-service consumption interface that bridges the Infrastructure/Operations side with the end-users seamlessly. Best-in-class support for VMware-based infrastructure, brownfield workload support, policy engine, integrations with common ecosystem tools and custom extensibility workflows with vRO and ABX are some of the key capabilities that empower this use case.

**Multi-Cloud Automation and Governance**

vRealize Automation Cloud abstracts the cloud heterogeneity without discounting the native cloud richness. It applies a unified approach for orchestrating, consumption and governance across all major clouds. Some of the most critical features for this use case are the cloud agnostic blueprints, deep support for native public cloud services, native cloud template brokerage (e.g., AWS CFTs) and common policy and lifecycle management engine across clouds.

**Delivery with DevOps**

Infrastructure as Code (IaC) and continuous delivery are at the forefront of any enterprise DevOps initiative. vRealize Automation Cloud provides an accessible and comprehensive route to DevOps adoption. Unlike legacy continuous integration tools, Code Stream provides a combination of OOTB integrations, dashboards, container deployments and progressive delivery (canary, blue green, automated rollback) that makes pipeline modeling and monitoring easier than ever. Cloud Assembly with IaC, API-first approach, completes the picture and allows customers to follow modern delivery principles throughout the build-release cycle.

**Kubernetes Workloads**

vRealize Automation Cloud enables management, monitoring, discovery and request of Kubernetes clusters and namespaces. Out-of-the-box integration with PKS and Red Hat OpenShift are currently supported for enterprise use cases.

**SUMMARY**

vRealize Automation Cloud is a fundamental value pillar for any MSP. Policy-based workload provisioning, governance, lifecycle management, custom content and integrations are some of the capabilities that make this solution a natural fit in the Cloud Partner Navigator. The MSP model under the VMware Partner Connect Program empowers partners to build their businesses. Irrespective of the size or ambition of a customer, VMware Cloud on AWS enables cloud providers to offer a wide range of solutions and a painless transition of their on-premises environment.