

Self-Service Private Cloud with VMware Cloud Foundation

Enabling self-service consumption and delivery

“Self-service is clearly not a new concept, so why pay attention to it now? The reason is because two thirds of study participants say they are on a journey to transform their traditional virtualized environments to make them more cloud-like. Failing to consider self-service as you do this could represent a missed opportunity.”

FREEFORM DYNAMICS¹

SOLUTION OVERVIEW

Self-service private cloud with VMware Cloud Foundation™ enables IT organizations to transform their on-premises data center infrastructure into a modern private cloud with self-service consumption and delivery capabilities. Leveraging VMware vRealize® Automation™, IT organizations can deliver a true cloud consumption experience via a self-service catalog powered by DevOps principles, including infrastructure as code (IaC) via VMware Cloud Templates™.

Accelerating data center modernization

While most organizations have already been on the path to evolving their digital business, the recent pandemic triggered an urgency to accelerate the transformation of apps and clouds to deliver a differentiated, digital customer experience and increase revenue. Many CIOs recognize one of the key requirements to leading a full-scale modernization of the enterprise starts with cloud infrastructure transformation, redefining the foundation of IT with cloud capabilities and modern architectures from the data center that can also extend to multi-cloud and the edge for all applications.

However, in many cases, the current environment has outdated infrastructure and is not optimized for this. Furthermore, competing priorities, no time to investigate, and the lack of skillsets to transform cloud infrastructure often make it challenging for many organizations to adopt on-premises private clouds. Meanwhile, lines of business and development teams have leveraged public clouds and open source tools without a lot of IT oversight to address their needs around agile software development, DevOps, and continuous delivery.

Delivering a self-service cloud consumption experience for on-premises environments

As organizations have started to selectively embrace the public cloud for a portion of their business needs, they increasingly realize the advantages of cloud infrastructure and operations. They now require a public cloud-like self-service experience for on-premises environments. Research¹ by Freeform Dynamics highlights that IT professionals recognize that “self-service is seen as both an efficiency and transformation enabler” for IT and end users. Benefits include “easing the burden on IT operations, streamlining access to resources for DevOps and application support teams, and more generally allowing resources and risk to be better managed in fast-moving environments.”

While public cloud has its place in overall app development and digital initiatives, it is not a fit for everything. Certain apps and workloads may need to also reside in on-premises environments due to compliance, integration and cost considerations. They may also need to move between different environments over time based on demand and consumption patterns. Self-service delivery models enable IT organizations to abstract services and provide users what they need, while IT retains the flexibility to move resources on the back end with control and compliance, optimizing the use of strategic corporate infrastructure resources at the same time.

1. Freeform Dynamics. “Self-Service IT Delivery.” 2020

KEY BENEFITS

- Make self-service private cloud easy with a consistent operating, governance and consumption model for consistency across clouds and workload types.
- Provide quick time to value by enabling consumption of the software-defined data center (SDDC) in a private cloud with existing skillsets.
- Enable the adoption of modern use cases, such as DevOps for infrastructure and network automation for business and IT agility, productivity and efficiency.

Key challenges

For most IT organizations, building and delivering a private cloud environment will be challenging, costly to maintain, and complex to operate, not to mention keeping up with the latest and modern cloud technologies. Challenges include the following:

- Building and maintaining a DIY private cloud from scratch using traditional technology can result in heavy capital costs, combined with deployments that can take several months. This can require ongoing investment for maintaining and updating disparate systems, and result in increased operational expenses.
- Integrating automation platforms easily and seamlessly with existing infrastructure environments needs to happen without disruptions to existing business processes and operations.
- Improving the automation of the IT infrastructure and incorporating existing, established governance policies and management tools are needed to manage both virtual machine (VM) and container-based workloads.
- Having a consistent cloud infrastructure that's easy to learn and leverages existing skillsets is needed to prevent skill shortage in teams tasked with automating IT resources in their existing on-premises data center.

Solution description

Self-service private cloud with VMware Cloud Foundation enables IT organizations to transform data centers based on VMware Cloud™ into a truly modern private cloud with self-service consumption and delivery capabilities. At the heart of this transformation is vRealize Automation, the industry's leading modern infrastructure automation platform, offered as part of VMware Cloud Foundation.

VMware Cloud Foundation delivers VMware vSphere®, VMware NSX®, VMware vSAN™, and VMware vRealize Suite as the core software-defined private cloud infrastructure. As a critical component of vRealize Suite, vRealize Automation provides self-service consumption and the private cloud's resource delivery layer, transforming any data center infrastructure based on VMware Cloud Foundation into a modern, self-service private cloud.

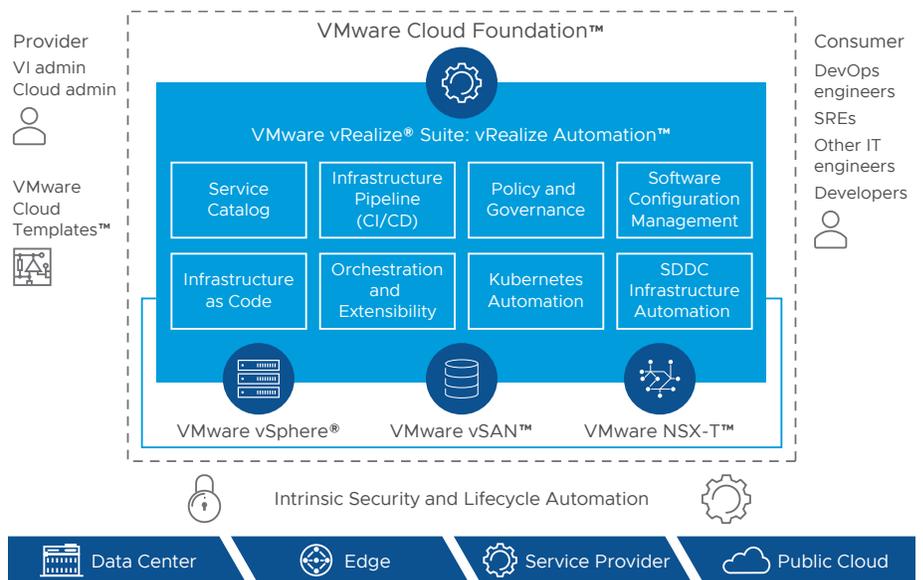


FIGURE 1: VMware vRealize Automation delivers a self-service consumption and delivery layer for private clouds based on VMware Cloud Foundation.

RESOURCES

- Visit the [VMware Cloud Foundation](#) and [vRealize Automation](#) product pages for more information, or contact your VMware representative.
- Connect with a VMware expert for a tailored self-service private cloud demo for you and your team.
- Test-drive via [Pathfinder](#).
- Visit the [VMware Cloud Foundation blog](#) to read more about private cloud.
- Visit the [VMware Cloud Management blog](#) to read more about vRealize Automation.
- Follow us on Twitter [@vmwarevcf](#) and [@vRealizeAuto](#).

Key capabilities

Once VMware Cloud Foundation is installed, the IT/cloud admin can instantiate a self-service private cloud that supports modern use cases quickly and easily with the following capabilities:

- Self-service catalog – Quickly stand up a self-service catalog pre-populated with out-of-the-box content. Rapidly provision new resources via VMware Cloud Templates, vRealize Orchestrator™ workflows, infrastructure and app pipelines, and Action-Based Extensibility (ABX) actions. Use project-based policies, governance and costing to manage resource access and utilization centrally.
- Infrastructure as code – Define machines, applications and services created on VMware Cloud infrastructure resources. Standardized cloud-agnostic cloud templates can be designed and deployed on any supported VMware Cloud endpoint based on inputs and variables that define the placement logic. Admins can also add ecosystem constructs, including VMware NSX-T™ networking and security objects, Kubernetes clusters and namespaces, Terraform configuration files, and custom resources.
- Software configuration management – Define optimized, secure software states and enforce them across the entire private cloud environment with flexible, intuitive configuration automation. Enact change immediately across the environment with scalable remote execution.
- VMware Cloud infrastructure automation – Configure a VMware Cloud Foundation cloud account as an endpoint to use workload domains and set up catalog items. With a single click, users can apply the appropriate security groups and storage policies, and proceed to deploying a VM. The platform automates the underlying VMware Cloud infrastructure constructs, abstracting the complexity away. Automate management of IT services across its lifecycle with approval policies, provisioning through APIs, declarative state enforcement, workflow orchestration, Day 2 automation, and automated configuration remediation.

Discover self-service private cloud from VMware

VMware Cloud Foundation makes self-service private cloud easy with a consistent operating, governance and consumption model. Powered by vRealize Automation, VMware Cloud Foundation provides quick time to value by enabling self-service consumption and delivery of private cloud resources, providing users and developers with a unified and consistent self-service layer. Take advantage of our self-service private cloud with VMware Cloud Foundation solution to enable modern use cases, and help drive increased business and IT agility, productivity and efficiency.

Learn how you can enable rapid implementation of a self-service consumption and delivery layer on a private cloud infrastructure based on VMware Cloud Foundation, and gain the ability to apply the same self-service catalog, content and policies. See how this provides centralized and streamlined operations with unified visibility and management across VMware Cloud environments with existing skillsets.