5 Ways to Avoid Hybrid Cloud Management Nightmares
A Guide to IT Success
Running a hybrid cloud is top of mind for most companies. When done correctly, a hybrid cloud delivers a consistent and agile foundation for your digital business.

With a hybrid cloud, like one built on VMware Cloud Foundation, VMware Cloud on AWS and VMware vRealize Cloud Management, you get consistent infrastructure and consistent operations from the data center, to the cloud, to the edge. You will improve agility, reduce complexity, improve cost, and minimize risk, and deliver a cloud operating model for any application – traditional or container-based.

That sounds great, but it comes with some big questions.

- How can you manage workloads across private cloud, public cloud, and edge environments?
- How do you ensure you are running a cost-efficient hybrid cloud?
- How do you drive the best performance, uptime and compliance for your apps and containers in this new environment?

Proper cloud management is the answer!

Let's take a closer look at the top five management needs for running a hybrid cloud, and how vRealize Cloud Management can solve them for you.

1. Planning your initial hybrid cloud purchase
2. Migrating workloads to the hybrid cloud
3. Deploying workloads in the hybrid cloud
4. Managing ongoing capacity and costs
5. Ensuring the best possible performance
Planning your initial hybrid cloud purchase

A hybrid cloud is made up of a combination of owned and rented hardware, so the first thing you need to do is determine how much cloud infrastructure will you need and of which type.

For example, are you taking an approach to your hybrid infrastructure of deploying new workloads in VMware Cloud on AWS for a large development project? Or are you migrating workloads and applications from a private datacenter to the cloud during a hardware refresh?

Or a combination of both, new and migrating?

vRealize Cloud Management’s migration planning what-if scenarios allow you to scope your initial and ongoing purchases of VMware Cloud on AWS for either scenario.

![Image of vRealize Cloud Management interface](image)

Start planning your hybrid cloud with vRealize Operations
How To Get Started

To start, simply name your project and then choose a VMware Cloud on AWS region.

You can configure the resource needed for new workloads or chose to migrate existing ones from your on-premises datacenters, and then run the scenario.

Choose workloads to migrate to the hybrid cloud and run the scenario with vRealize Operations.
Review hybrid cloud resource needs and costs in vRealize Operations.
After VMware vRealize Cloud Management helps you determine the right amount of hybrid capacity for your business needs, you can start planning app migration. But how do you know what workloads to migrate? How can you safely move your applications and ensure they continue to perform?

**How To Get Started**

vRealize Cloud Management, with its AI driven flow-based analysis, automatically discovers your applications including connectivity between VMs and services and any connectivity to shared infrastructure or backend systems. This allows you to make intelligent decisions when migrating applications and ensure all the components are taken into consideration.

Automated application discovery with vRealize Network Insight
Detailed traffic visibility between groups of applications, components and networks ensure you have the right connectivity and do not run into network capacity issues for either inter-connections or internet bandwidth.

Review application dependencies with vRealize Network Insight
Once you have determined which workloads you wish to migrate you can automatically create mobility groups in VMware Hybrid Cloud Extension to facilitate seamless app mobility between on premises data centers and VMware Cloud on AWS.
So that covers your migration needs, but what if you were looking to take a more greenfield approach to your hybrid cloud?

You can’t call your hybrid environment a cloud without a Self-Service Catalog that applies consistent policies and governance for your organization.

How To Get Started

vRealize Cloud Management provides a rich set of Infrastructure-as-Code capabilities that help Cloud Administrators build out a flexible and modern set of services. Administrators can consume Cloud Zones based on VMware Cloud Foundation, VMware Cloud on AWS or native AWS infrastructure and can customize them with additional infrastructure services such as NSX Networks and Security Groups, or vSAN SPBM Policies and Datastores.
Capability tags, Approval Policies and role-based access provide guardrails for the hybrid cloud, while templates provide a way to constrain deployment to the appropriate cluster or datacenter.
The role-based self-service portal offers developers and other consumers freedom of choice when deploying new workloads. With Agnostic Cloud Templates, consumers experience the same workflow to deploy into any cloud environment: private, hybrid or even public.
The portal can be configured with a rich set of custom form actions and dropdowns to provide the user more options for sizing, placement, naming, monitoring and compliance. Users are even provided with an estimated cost at request time for full cost transparency and budgetary purposes.

Example of vRealize Automation customizable template
Speaking of costs, it’s important to manage the ongoing capacity and associated costs of your hybrid cloud, and with the AI capacity and costing engine of vRealize Cloud Management you can run the most efficient hybrid cloud possible.

**How To Get Started**

You can view your current capacity remaining across all your private and hybrid cloud environments from one place.

Review datacenter capacity with vRealize Operations
Trending shows the capacity remaining across CPU, memory and storage and alerts can proactively notify you of upcoming capacity shortcomings and recommendations for how much more hardware you need.

AI driving capacity trends with vRealize Operations
Of course, it’s not always possible to order new hardware so being able to reclaim unused resources, especially in a hybrid cloud is a must. vRealize Cloud Management allows you to reclaim powered off and idle VMs as well as unneeded snapshots and orphaned disks which saves you capacity and money.
Chargeback reports based on user-defined pricing rate cards are available for your lines of business, so you can run your hybrid cloud like a public cloud.
Tracking your costs of your hybrid cloud datacenters is simple through configurable cost drivers, integration of bills from hybrid clouds like VMware Cloud on AWS.

Manage private cloud costs with vRealize Operations

View hybrid cloud costs with vRealize Operations
And if your environment includes native public clouds, you can view those costs through an integration between vRealize and CloudHealth.

Once all your cloud costing data is brought into vRealize Cloud Management, it can be combined to create any number of custom financial based dashboards, views and reports.
The final challenge you will face is to drive the best performance for your applications running across your hybrid cloud.

How To Get Started

vRealize Cloud Management gives you visibility into the performance of the workloads, infrastructure and applications running in your environment. Through out-of-the-box dashboards, for instance, you can view the health of your VMs or containers across CPU, memory, storage and network and look for problems.
In fact, vRealize Cloud Management is the only solution that allows unified monitoring of both VMs and Kubernetes workloads. It alerts you when performance is degraded and provides possible remediations to bring your applications back into working order.
Running a Hybrid Cloud

1. Plan
2. Migrate
3. Deploy
4. Manage
5. Perform

vRealize Cloud Management

Solve problems faster with the Troubleshooting Workbench in vRealize Operations

For deeper troubleshooting needs the AI driven Troubleshooting Workbench shows you any events, property changes or anomalous metrics and lets you change the timeframe and the topology scope.
Of course, not all problems are performance based, some are full blown outages. Having visibility into the network connections that link your hybrid cloud together and receiving pro-active alerts of any ongoing connectivity issues will let you know when outages occur.

Troubleshooting problems between applications, internet breakout connections, VPN tunnels, Direct Connects, or other connections is simplified with vRealize Cloud Management.

If there’s a networking or security issue in your hybrid cloud you will be able to pinpoint it quickly and resolve it.
What is VMware vRealize Cloud Management?

VMware vRealize Cloud Management is the intelligent, hybrid cloud management solution empowering you to consistently deploy and operate your apps, infrastructure, and platform services, from the data center to the cloud to the edge. You can accelerate innovation with quick and easy access to services, gain efficiency by improving visibility and automation, and improve control and mitigate risk through unified operations and governance. This helps you modernize IT, promote cloud evolution, and assure developer productivity.

Organizations trust vRealize Cloud Management, the industry leader ranked by IDC,¹ that offers the most comprehensive capabilities for programmable automation and self-driving operations with the ultimate flexibility of deployment and licensing options. With vRealize Cloud Universal, you get on-premises and SaaS capabilities in one license to move to cloud at your own pace while protecting your existing on-premises environment.

Make Cloud Your Business

With a consistent foundation and powerful management tools, you too can have a cloud operating model that supports containers and applications and works reliably across private, hybrid or public cloud environments.

As recent events have shown, cloud truly delivers. It’s time to make cloud your business with VMware vRealize Cloud Management.


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