



VMWARE CLOUD AND PRODUCTIVITY ENGINEERING SIMPLIFIES AND SPEEDS MIGRATION FOR THE PRIVATE CLOUD

CUSTOMER

VMware IT

LOCATION

Palo Alto, CA

KEY CHALLENGE

Simplify and speed migration while minimizing disruption to customer workloads

SOLUTION

VMware vCloud® Availability Cloud to Cloud

VMware's Cloud and Productivity Engineering (CPE) team enables VMware engineering teams to deliver and operate world-class cloud services. As the seamless partner for all VMware R&D, CPE is committed to helping internal customers reach excellence in engineering with world-class software products and services.

Working closely across the organization, CPE provides a center-of-excellence that spans across VMware's public and private cloud services. The team is dedicated to crafting, constructing and operating "core building-block" services, building community, and curating libraries of knowledge/best-practices.

This ecosystem provides capacity to VMware tenants with 100 services delivered, of which 45 are critical services, and over 250K virtual machines (VMs) that provide teams with the agility, control, stability and productivity needed to develop and deliver solutions. For example, the R&D private cloud is comprised of five data centers, with an average of 1.3 million VMs created and destroyed weekly. This offering reduces delivery times and costs, is extensible to the public cloud, and supports the delivery of Infrastructure as a Service (IaaS), Labs as a Service (LaaS), automation/CLI support, innovation pilots, and more. Internal customers include VMworld Hands-on Labs, Education Services, R&D, Corporate IT, and Global Support.

The Challenge

CPE was migrating to vSAN and hyper-converged infrastructure (HCI) design, and the team wanted to minimize disruption for its customers' workloads. Unfortunately, CPE was experiencing difficulties migrating customer content without extensive downtime. In addition, CPE was not able to migrate as many vApps as needed to achieve the increased efficiencies and simplification the team was seeking.

At the end of the day, CPE had to solve two challenges: refresh the hardware while implementing the new architecture.

The Solution

CPE deployed VMware vCloud Availability Cloud to Cloud to enable seamless, simplified migration from the old environment to the new vSAN environment.

"VMware vCloud Availability Cloud to Cloud has given us a way to minimize the impact to customers and speed up the migration process," said Brandon Bazan, Sr. Site Reliability Engineer. "It makes for a much faster and simpler migration process."

BUSINESS BENEFITS

- Completed 3600+ replications in a matter of a few weeks
- Reduced the average customer vApp migration process from eight days to one day
- Migrated more tenants in less time than with the previous solution
- Minimized migration complexity and eliminated the need to buy and learn a third-party solution
- Eased deployment and management with the seamless integration of vCloud Director

VMWARE FOOTPRINT

- VMware vCloud Availability Cloud to Cloud
- vCloud Director®
- VMware NSX®
- VMware vSphere®
- VMware vRealize® Network Insight™
- VMware vRealize® Operations™
- VMware vSAN™

Business Results and Benefits

Prior to vCloud Availability Cloud to Cloud, CPE had no tool to perform migrations. The team relied on heavy custom scripting that was not only difficult and time consuming to execute, but also required regular maintenance that added to their overall operational complexity and cost.

vCloud Availability Cloud to Cloud deployment has been easy, with the team using the OVF Tool deployment method. When configuring appliances, the team simply follows the configuration guide to have the process completed minutes after deployment. The solution also helps CPE seamlessly migrate tenants to a new instance of VMware vCloud Director (vCD), backed by new hardware. The new scripts the team developed created significant time savings when migrating to a new vCD instance.

With VMware vCloud Availability Cloud to Cloud, CPE has reduced the average vApp migration process from eight days to one day while also eliminating the need to purchase and learn a new third-party solution. That is based on 60 deployed vApps with approximately 700 VMs. If the team was using the native vCD sync method manually or scripting, it would involve a lengthy coordination of multiple downtimes for end-users and require system admin oversight during the process.

“Today we can migrate more tenants in less time than before. It’s also greatly simplified the process. We no longer have to capture all vApps to catalogs and sync those vApp templates for days. We simply use the appliance for these actions,” said Bazan. “Since vCloud Availability Cloud to Cloud supports cross version vCD migration, the fact that the source and the destination vCD instances were on different versions wasn’t a problem at all.”

Looking Ahead

To date, CPE has successfully migrated 3,600 VMs using vCloud Availability Cloud to Cloud.

In the next six months the team intends on migrating another five vCD instances. CPE will also be deploying cloud-to-cloud disaster recovery (DR) services, leveraging the power of vCloud Availability Cloud to Cloud to fail over and move workloads back and forth between data centers, as well as enhance DR capabilities for CPE customers.

