

Simplify and Speed Migration for VMware Cloud Environments

CUSTOMER

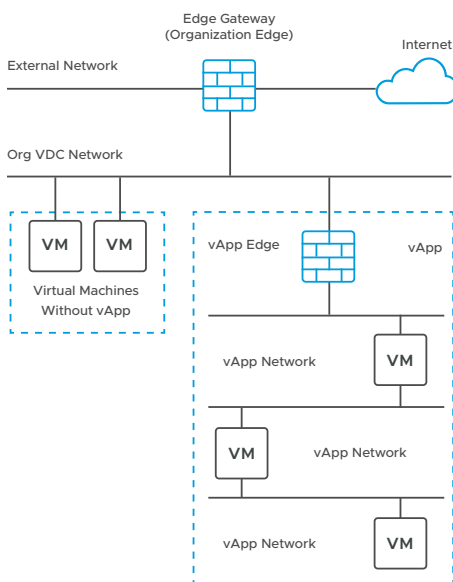
VMWARE CLOUD AND
PRODUCTIVITY ENGINEERING (CPE)

LOCATION

Palo Alto, CA

KEY CHALLENGE

Refresh the large OneCloud hardware estate and migrate existing environments, while implementing the new future proof OneCloud architecture



VMware Cloud and Productivity Engineering (CPE) team enables VMware Research and Development (R&D) and the VMware Global Support Services (GSS) to deliver, support and operate world-class cloud services. VMware's internal IT 'OneCloud', powered by VMware Cloud Director (VCD), provides teams with the agility, control, stability and productivity needed to develop and deliver solutions.

The Challenge

Datacenters in Wenatchee, Washington containing approximately 1000 hosts and Amsterdam, Netherlands of 150 hosts were due hardware refresh from old Cisco UCS to an HyperConverged design with vSAN. The old environments were not able to support the business growth and required refresh hardware consumed much more Datacenter space and resources impacting cost.

The GSS infrastructure in Amsterdam supporting customer issues, consisted of very complex replica customer labs in Cloud Director vApps, each with a minimum of 10 VM and 4-5 Org networks using NAT and firewalls between networks. The R&D labs in Wenatchee Washington state supports VMware's software development, testing and business growth.

"The networking piece was quite a challenge" – Brandon Bazan (Sr. Cloud Site Reliability Engineer, CPE)



CPE was experiencing difficulties migrating content without extensive downtime due to the complexity of the customer vAPP and networks. Consequently CPE was not able to migrate in change windows as many vApps and VMs as needed to meet the new target platform efficiencies and simplification.



CPE had to solve two challenges: refresh the large OneCloud hardware estate and migrate existing environments, while implementing the new future proof OneCloud architecture.



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SOLUTION

VMware Cloud Director Availability

BUSINESS BENEFIT

Reducing the carbon footprint of Amsterdam and Wenatchee datacenter

The Solution

CPE assessed different solutions and methods of migration, but all were unable to minimize downtime and simply couldn't get near the throughput needed to sync and cutover quickly enough in maintenance windows. The complexity of the NAT/Networking and firewall configurations in the GSS vAPPs supporting customers was also a stumbling block for migrating without costly post migration operations.



WHY EVERY COMPANY SHOULD EAT ITS OWN DOG FOOD

CPE, who believe in 'dog fooding' and using our own products, deployed VMware Cloud Director Availability to enable seamless, simplified migration from the old to the new environment. They sped up cutover of the migration activities by automating post migration 'clean up' operations directly in VMware Cloud Director Availability.

The integration of Cloud Director Availability in Cloud Director helped operations onboard the solution simply at the source and target Cloud Director sites. Simple Replication Appliances were configured in the source environments in minutes after deployment and setup to replicate to target tenant Cloud Director Organisations.

Business Benefits

The solution seamlessly migrated in the region of approximately 2-3 thousand VM in Amsterdam in 9hrs and 4000 VM across multiple tenants less than 10 weeks in Wenatchee DC to their respective new instance of vCD, backed by new hardware.

With VMware Cloud Director Availability, CPE has reduced the average vApp migration process from eight days to one day while also eliminating the need to purchase and implement a new third-party solution.

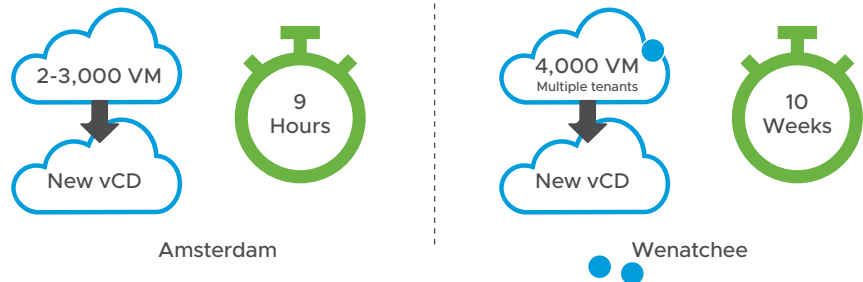
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REDUCING CARBON FOOTPRINT

- 258,300 kg of CO²/yr
- 2/3 carbon reduction in Amsterdam
- 25% reduction in hosts in the Wenatchee location



This wouldn't have been possible to do without Cloud Director Availability



VMware has significantly reduced its carbon footprint by approximately 258,300 kg of CO²/yr. (with an approximate Carbon exchange of \$7,000) * from the smaller more efficient HCI & vSAN environment, resulting in saving rack space, power, cooling and reduction in overall hardware and datacenter size;

- In Amsterdam they moved from approx. 86 racks containing approx. 152 hosts to a target environment of approx. 85 hosts, reducing the carbon footprint of the Amsterdam datacenter by 2/3.
- In Wenatchee approx. 40,000 VMs are managed by approx. 1000 hosts and a substantial amount of backing storage, moving to approx. 750 hosts again significantly reducing the carbon footprint.

VMware GSS now has the same lab footprints as before, but critically has additional headroom in the new environment for more customer configurations and further labs, increasing their support capacity. VMware R&D has faster labs and more capacity, future proofing development and testing for innovation of software solutions.

All of these achievements are testament to the power of Cloud Director Availability and couldn't have been achieved in the timescales by any other solution.

