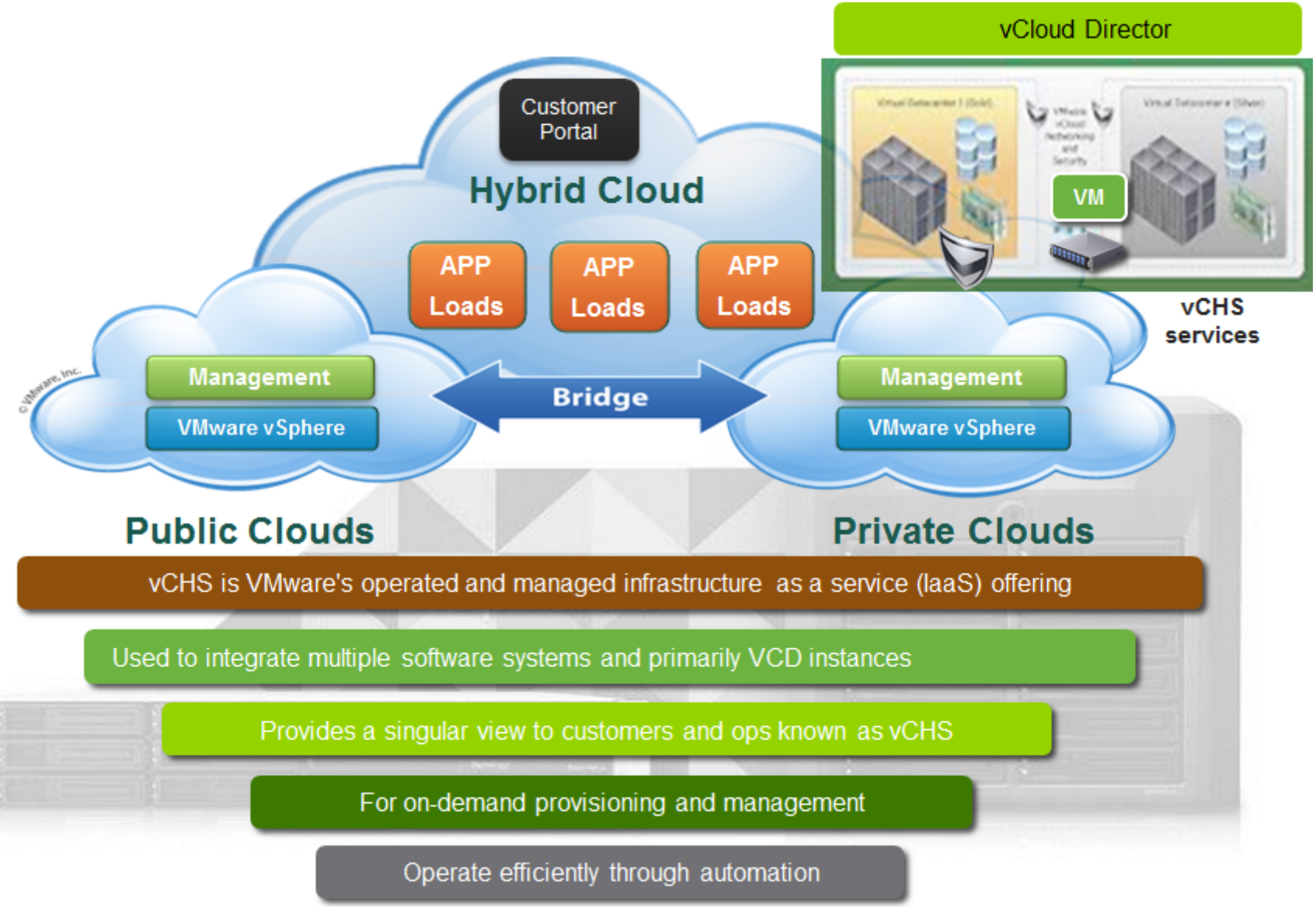
Migrating Large On-Prem Data to vCloud Hybrid Service is a Cakewalk

With the Launch of VMware vCloud Hybrid Service, we got into another side of VMware and that is the Service Provider side of it. But hey do you know what is the model of a Hybrid Cloud. Perhaps you need a 20K feet refresher of it

First off, what is VMware vCloud Hybrid Service?

> **vCHS is a VMware operated and managed IaaS service offering. Its primary purpose is to integrate multiple software systems and primarily VCD instances, to provide a singular view to customers and operations (ops) for on-demand provisioning and management of cloud resources and cloud usage. This singular view is what is known as vCHS. vCHS helps vCloud Service Providers accelerate time to market for vCloud Director-based infrastructure as a Service offering, and operate efficiently through automation.**



vCHS allows VMware’s public/hybrid cloud customers to view, operate and transfer infrastructure workloads (VMs, vApps, templates) between private and public clouds. From the front end there are UI and console components that are available to users. These frontend architecture allows for integration with “external” systems.

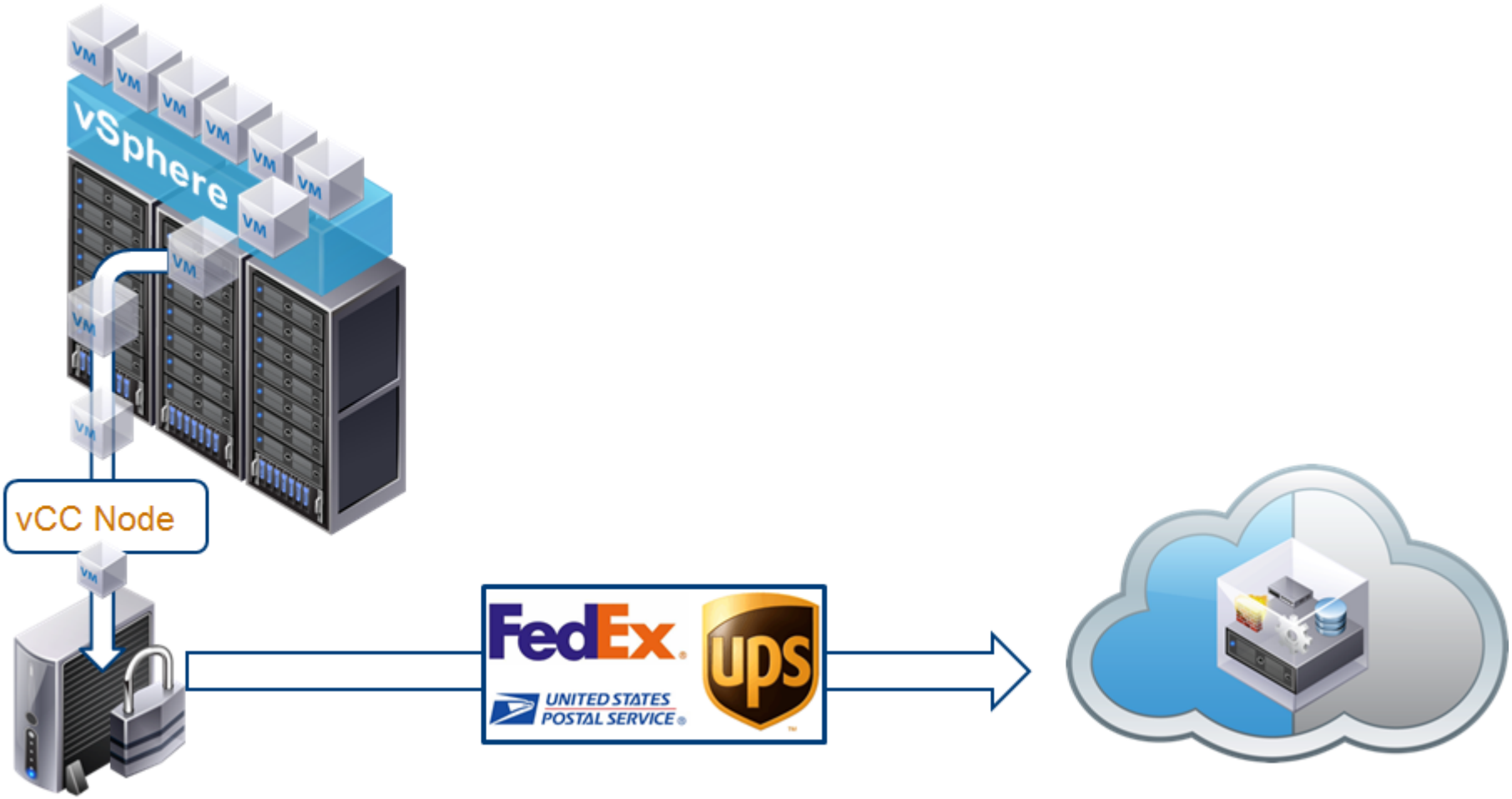
Now without going to further details as to how the UI looks like and what a customer is going to get, I am straight a way going to talk about the Hybrid side of it.

As I said earlier, it's a Hybrid Cloud and our customers can transfer their On Prem workloads to our Hybrid Cloud. But the ~~ugliest~~ biggest question is, how do you transfer your huge workloads to our Hybrid Cloud. Does VMware give a robust solution to migrate customer's data safely and reliably to their vCloud Hybrid Service? Answer is yes. Voila !! That sounds good right? Yes indeed. Now let me show you the solution and how does it work from a Bird View.

VMware uses vCloud Connector to migrate large amounts of data (up to 12 TBs) from your private vSphere or vCloud Director based datacenter to a VMware vCloud Hybrid Service.

With the new release of vCloud Connector, it enables you to migrate large numbers of virtual machines, vApps, and templates (up to 10 TBs of data), securely from your private datacenter to the VMware vCloud Hybrid Service. The best part of it is it lets you transfer data from a vSphere or vCloud Director based datacenter.

Now the next question arises on your mind is, how does it happen. Does it uses the same old vCC feature of copying the data over the AIR or does it do some magic to transfer that giant data? Do you need a thick internet pipe to transfer those workloads? And our answer is, no you don't need any of the above and it does not touch down those caveats, it uses a new feature called Offline Data Transfer which is included in vCC, but to use this feature, you need to have a vCloud Hybrid Service. You can also buy the Advanced Edition of vCC and that will enable this option. Of course nothing is free in this world :). Ok, enough saying and lets get back to work. Let me show you how does it happen.



So as a customer what you have to do is from vCloud Connector, you need to export your data to an external storage disk provided by the vCloud Hybrid Service operator and ship it back to the operator. The operator imports the data into the vCloud Hybrid Service. So simple huh!! The best part about the entire solution is it encrypts the data before writing it to disk, ensuring a secure transfer. I know that was the next question you would have asked us, what about security.

Now during export, you can select the networks for your virtual machines and vApps on the vCloud Hybrid Service from a list of available networks. As all virtual machines and vApps are first copied to vCloud Director-based clouds as vApp templates, you can choose whether to deploy virtual machines and vApps from the templates and whether to retain the templates in the destination catalog after they are deployed. You can also specify whether to power on the virtual machines and vApps after they are deployed. You can set these options individually or apply them to all items being exported.

What happens then at the vCHS side? The vCloud Hybrid Service operator also uses vCloud Connector to import the data to a vCenter Server datastore associated with the vCloud Hybrid Service. vCloud Connector uploads the data, decrypts it, and moves it into your vCloud Hybrid Service datacenter. vCloud Connector then applies the network, power, and

deployment settings that you specified during export.

This secure transfer of data is enabled through the common use of a vCloud Connector Node that is deployed in the vCloud Hybrid Service and used both by you during export and the vCloud Hybrid Service operator during import. The Node is deployed by the vCloud Hybrid Service operator, who sends you the Node URL. Both you and the vCloud Hybrid Service operator register the Node with your own vCloud Connector Servers using different organizations and credentials.

Your vCloud Connector Server accesses the Node during export and stores encrypted information on it that will be used during import.

To import the data, the vCloud Hybrid Service operator only needs to specify the Node URL and the mount path of the disk, and select a vCenter Server datastore associated with the vCloud Hybrid Service. vCloud Connector uses the encrypted information it stored in the Node and disk to determine and access the correct location for uploading the data, and to decrypt and transfer the data.