



vCloud Director (VCD) and DRaaS ZT

Quick Reference Guide

Contents

vCloud Portal

vCloud Portal	3
Getting started	3
Quick Access	3
Adding vApps	4
Building a new vApp	4
Adding VM's	5
Configuring Resources	6
Configuring Virtual Machines	6
Configuring Network	7
My Cloud	8
vApps	8
vApp Actions	8
Changing vApp Properties	9
Virtual Machines	11
VM Actions	11
Adding/Removing CPU/Memory/Disk from VMs	11
Tracking log files	12
Catalogs	13
VDC Administration	13
Managing Virtual Data Centers	13
Adding users to VDC Admin	14
Virtual Data Center Settings and Personalization	14
DRaaS ZT Portal	15
Testing Failover	15
Stopping the Test Failover	18
Real Failover	19
Editing a VPG	21

vCloud Portal

Getting started

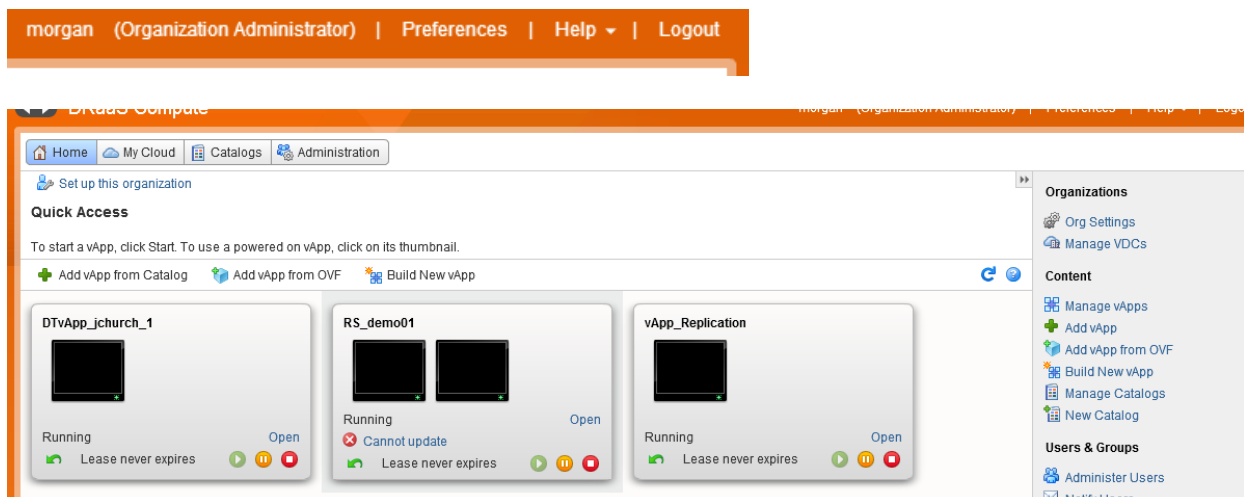
The vCloud Portal orchestrates the provisioning of software-defined datacenter services to deliver complete virtual datacenters for easy consumption in minutes. Virtual datacenters provide virtualized compute, networking, storage, and security so that administrators can provision the complete set of services necessary to make workloads operational in minutes without worrying about the physical configuration of hardware.

1. Login to the portal using your credentials



Quick Access

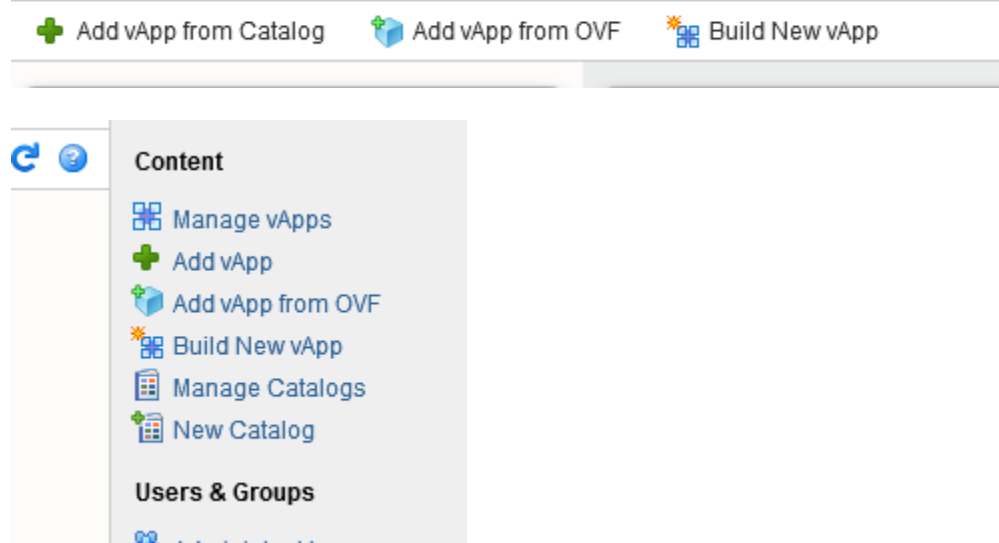
Upon logging in to your vCloud Portal the first page displayed will be your Quick Access page. Here you can see your vApps and VMs within them. You can quickly login to any of your VM's or preform basic configurations. You can also access our support knowledgebase and help at any time by selecting help in the top right pane.



Adding vApps

You can choose to build your vServers from custom built templates, built-in templates, or by creating your own from the Quick Access page by choosing from “add vApp from Catalog”, “add vApp from OVF”, or “Build New vApp” from the panel over your vApps or from the content section on the right hand side of your screen.

To start a vApp, click Start. To use a powered on vApp, click on its thumbnail.



Building a new vApp

Clicking on the Build New vApp button will bring you to the configuration window. You can name and describe you new vApp and chose which VDC it will reside in. You can also set leasing so stops and storage cleanup can be automatic.

New vApp

Select Name and Location

- Add Virtual Machines
- Configure Resources
- Configure Virtual Machines
- Configure Networking
- Ready to Complete

Select Name and Location

A vApp is a cloud computer system that contains one or more virtual machines. Describe this vApp and lease settings.

Name: *

Description:

Virtual Datacenter

Select the Virtual Datacenter (VDC) in which this vApp is stored and runs when it is started.

Leases

Runtime lease:

How long this vApp can run before it is automatically stopped.

Storage lease:

When this vApp is stopped, how long it is available before being automatically cleaned up.

Adding VM's

Select next to add your VM's. You can chose to add from your public or private catalogs by highlighting one and selecting the add button. You will notice it will drop down into the next table – do this for as many VM's as needed in this vApp.

Select Name and Location

Add Virtual Machines

Configure Resources

Configure Virtual Machines

Configure Networking

Ready to Complete

Add Virtual Machines

You can search the catalog for virtual machines to add to this vApp or add a new, blank VM. Once the vApp is created, you can power on the new VM and install an operating system.

Look in: Public Catalogs All

Name	OS	Gold Master	vApp	Catalog	Created On	Disk Info
RHEL6.x86_64-V	Red Hat Ent	-	RHEL6.x86_64	Public_BYOL_LV	01/15/2015 3:35 PM	25.00 GB
Windows2008R2	Microsoft Win		Windows2008F	Public_BYOL_LV	03/17/2015 12:17 PM	25.00 GB
Windows2008R2	Microsoft Win		Windows2008F	EvolveIP_BYOL	04/03/2015 11:15 AM	25.00 GB
Windows2012R2	Microsoft Win		Windows2012F	EvolveIP_BYOL	04/03/2015 11:14 AM	25.00 GB

Add
 Remove

1-5 of 6

Name	OS	Gold Master	vApp	Catalog	Created On	Disk Info
Windows2008R2	Microsoft Win		Windows2008F	Public_BYOL_LV	03/17/2015 12:17 PM	25.00 GB

New Virtual Machine...

Back Next Finish Cancel

You can also chose to create a new virtual machine by selecting the +New Virtual Machine button bottom left. A window will appear where you can name and configure hardware, OS, CPU, memory, and NIC's for your new virtual machine. Plug in your requirements and click ok. You should see your new VM populate in the bottom table, you can then click next.

New Virtual Machine

Virtual Machine name: *

A label for this VM that appears in VCD lists.

Computer name: *

The computer name / host name set in the guest OS of this VM that identifies it on a network.
This field is restricted to 15 characters for Windows. For non-Windows systems it can be 63 characters long and contain dots.

Description:

Virtual hardware version:

Operating System Family: Microsoft Windows Linux OS Other

Operating System:

Number of virtual CPUs:

Cores per socket:

Number of sockets: 1

Expose hardware-assisted CPU virtualization to guest OS
Select this option to support virtualization servers or 64-bit VMs running on this virtual machine.

Memory:

Hard disk size:

Configuring Resources

The next window will allow to you configure your storage policies from the dropdown menu per virtual machine

Select Name and Location

Add Virtual Machines

Configure Resources

Configure Virtual Machines

Configure Networking

Configure resources

Select what Storage Policies this vApp's virtual machines will use when deployed.

Virtual Machine	Storage Policy	Template VM Default Storage P
Windows2008R2.Standard.BYOL.Templa *	VNX6-Demo-01-LV	

Configuring Virtual Machines

Click next and name each of your VM's and set your primary NIC, network and IP settings. Note: It is recommended to choose static IP, it will ensure that when you exit your VM that it won't "reset" and when you log back in it will have the same appearance (apps and windows open) as when you left.

Configure Virtual Machines

Name each virtual machine and select the network to which you want it to connect. You can configure additional properties for virtual machines after you complete this wizard.

Show network adapter type
 Adapter choice can affect both networking performance and migration compatibility. Consult the VMware KnowledgeBase for more information on choosing among the network adapter support for various guest operating systems and hosts.

Virtual Machine	Computer Name	Primary NIC	Network	IP Assignment
Windows...	Windows2008-0 *	NIC 0	VM_NET_Demo	Static - IP Pool

Configuring Network

Click next and you will see the network configuration tab. Here you will configure how your vApps connect to your organizations VDC network.

Configure Networking

Specify how this vApp, its virtual machines, and its vApp networks connect to the organization VDC networks that are accessed in this vApp.

Fence vApp
 Fencing allows identical virtual machines in different vApps to be powered on without conflict by isolating the MAC and IP addresses of the virtual machines.

i The VDC selected for this vApp does not have network resources to support fencing.

Name	Type	Gateway Address	Network Mask	Connection	DHCP	Retain IP/ MAC...
VM_NET_Dem	Organization VDC	10.200.2.200	255.255.255.0	Direct	-	<input type="checkbox"/>

Clicking next will take you to the ready to complete page where you can review your vApp configurations

Ready to Complete

You are about to create a vApp with these specifications. Review the settings and click Finish.

Name: vApp_morgan_5
 Description:
 Owner: morgan
 Virtual datacenter: EIP-DEMO
 Runtime lease: Never Expires
 Runtime lease expiration: Never
 Storage lease: Never Expires
 Storage lease expiration: Never
 Networks - 1: VM_NET_Demo

VMs - 1:

Virtual Machine	Guest OS	Storage Policy
Windows2008R2.Standard.BYOLT	Microsoft Windows Server 2008 R2	VNX6-Demo-01-LV

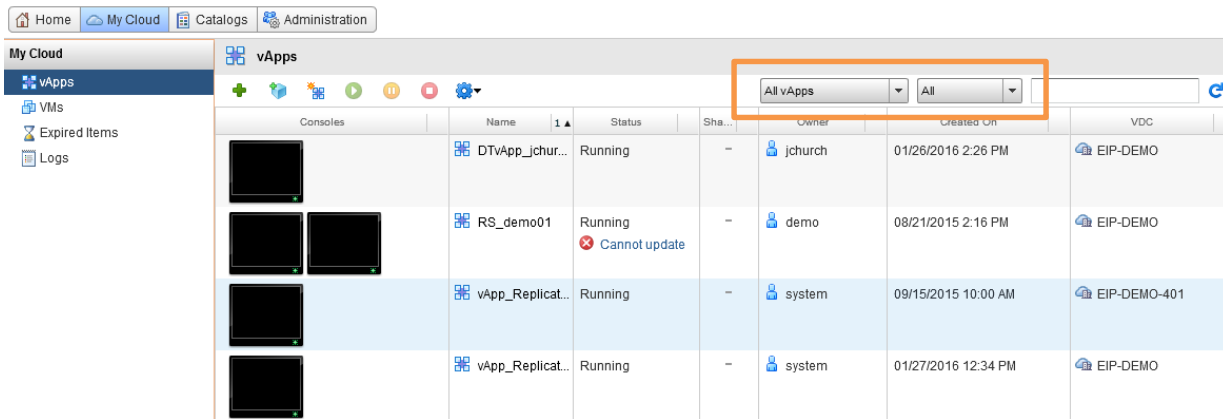
Back Next Finish

Click finish and you will see you vApp and virtual machines provisioning on the Quick Access main page. After this is completed you can access your VMs by directly clicking on them.

My Cloud

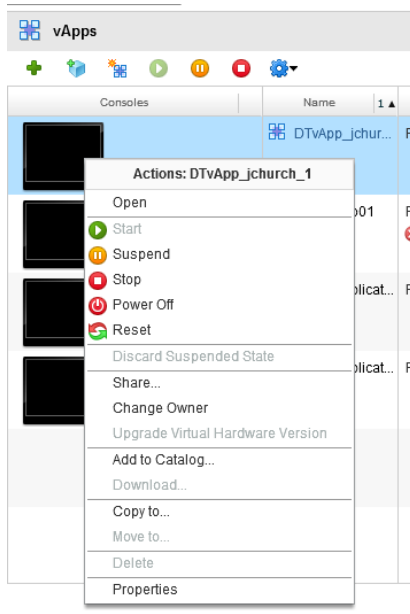
vApps

Clicking on the My Cloud tab will bring to you a page where you can access your vApps, VM's, Expired Items, and Logs. Here you will be able to view your information in different tabs and sort machines from the drop down menu to easily find and access them quickly. You can also perform the same functionality as you can on the Quick Access page by starting, stopping, pausing, creating new vApps and going to the properties page to change configurations.



vApp Actions

By right clicking on a vApp it will bring a drop down menu where you can change the power setting, share your vApp, change the owner, copy, add to a catalog, and manage the properties.



Changing vApp Properties

By right clicking on your vApp and clicking on properties at the bottom, a window will pop up where you can change and configure settings. The general tab you can change the name and description and change leasing

vApp Properties: DTvApp_jchurch_1

General Starting and Stopping VMs Sharing Guest Properties Metadata

Name: DTvApp_jchurch_1 *

Description: Windows 2012 R2 Standard - Bring Your Own Licensing
1 CPU, 2GB RAM, 25GB C Drive

Virtual datacenter: EIP-DEMO

Leases

Reset leases

Runtime lease: Never Expires Hours Expires on: Never
How long this vApp can run before it is automatically stopped.

Storage lease: Never Expires Hours
When this vApp is stopped, how long it is available before being automatically cleaned up.

From the starting a stopping VM's tab you can set automatic order in which you want your VM's to start and stop in your vApp when it is powered on and off. When you start this vApp, Virtual Machines are started in the specified order. When you stop this vApp Virtual Machines are stopped in the reverse order. For each virtual machine you can specify a waiting time before the next one is started or stopped.

vApp Properties: DTvApp_jchurch_1

General Starting and Stopping VMs Sharing Guest Properties Metadata

Virtual Machi...	Order	Start Action	Start Wait (seconds)	Stop Action	Stop Wait (se...
Windows201	0	Power On (default)	0	Power Off (0

You can add members in the sharing tab to allow others to access your vApps and VM's

General Starting and Stopping VMs **Sharing** Guest Properties Metadata

With which members of your organization do you want to share this vApp?

Add Members...

Name	Access Level

You can also add metadata from the properties window

General Starting and Stopping VMs Sharing Guest Properties **Metadata**

Type: Text

Name: *

Value:

Enter a text value. A text value is searchable from the API if it does not exceed 1000 characters (0 characters entered).

Add
Delete
Reset

Existing metadata:

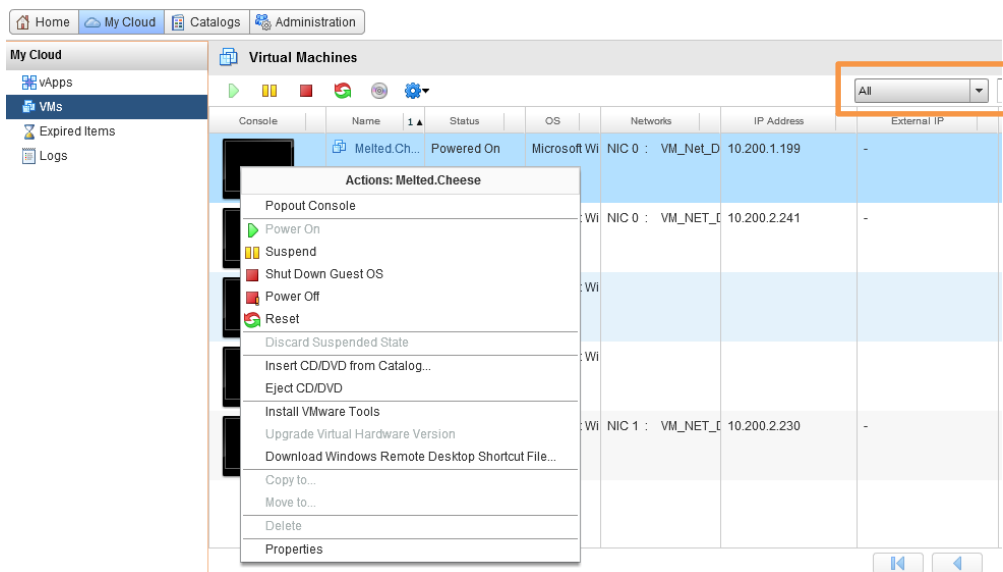
Name	Value	Type	User access
vapp.origin.id	c1b2e0c4-1ed0-4c29-ab1f-b684	Text	Read only
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Virtual Machines

Here you will be able to view your information in different tabs and sort machines from the drop down menu to easily find and access them quickly. You can also perform the same functionality as you can on the Quick Access page by starting, stopping, pausing, creating new vApps and going to the properties page to change configurations.

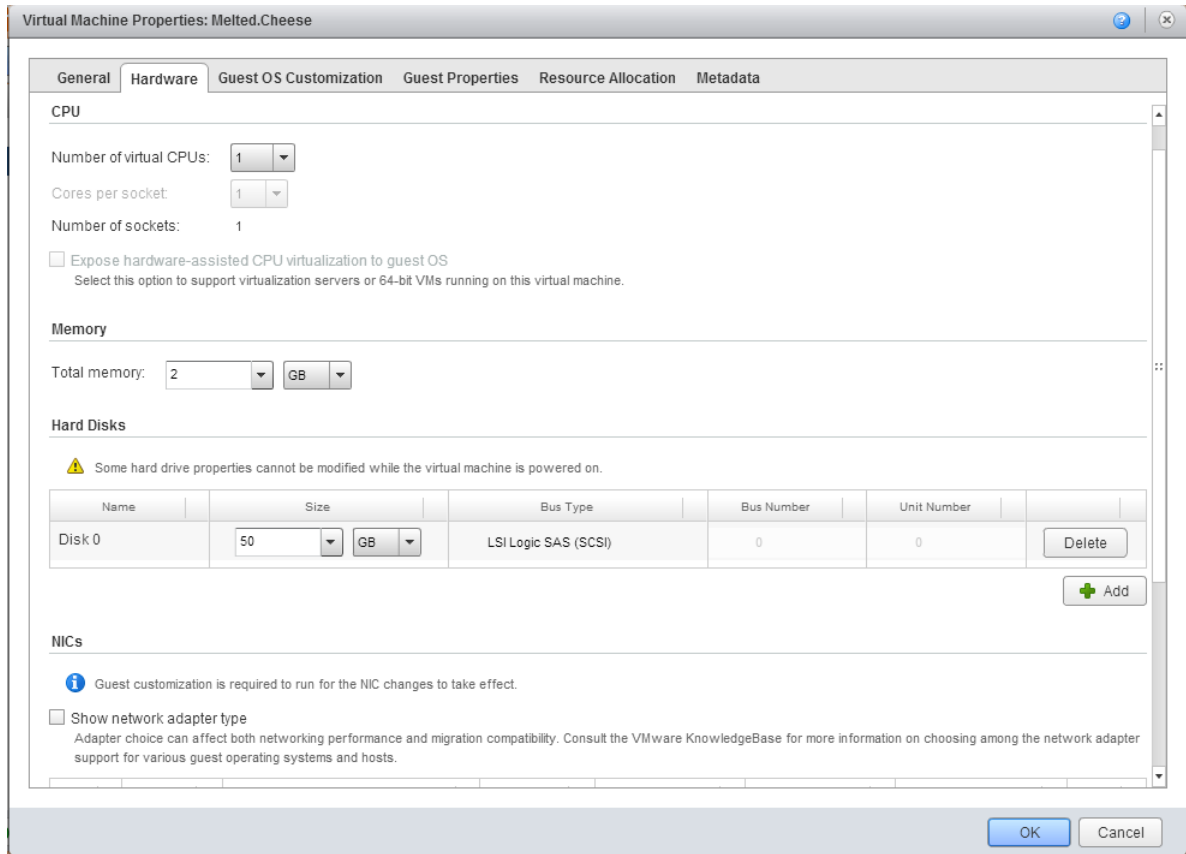
VM Actions

Right clicking on a VM will allow you to choose power functions, insert CD/DVDs from a catalog, Eject, install VMware tools (which are necessary for proper functionality), upgrade hardware, download remote desktop, copy, move, and your VM properties page.



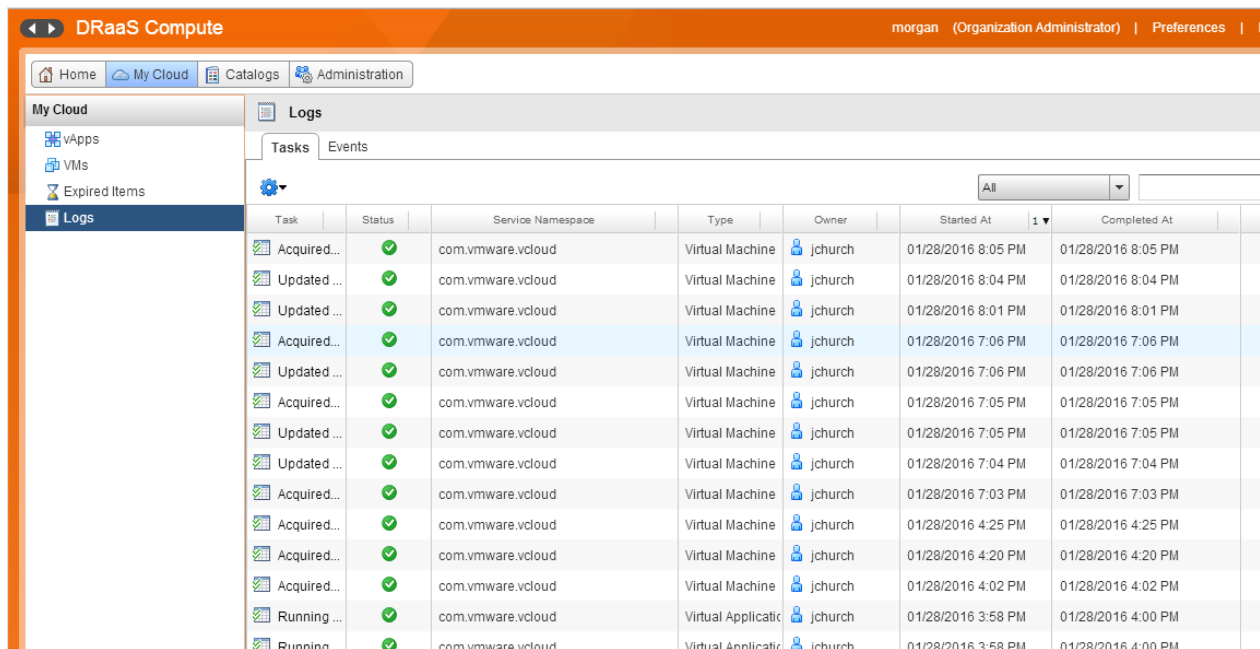
Adding/Removing CPU/Memory/Disk from VMs

By right clicking your VM and clicking on properties will allow you to change your hardware requirements per VM. You can also change your naming and description per VM, configure Guest OS and properties and allocate resources



Tracking log files

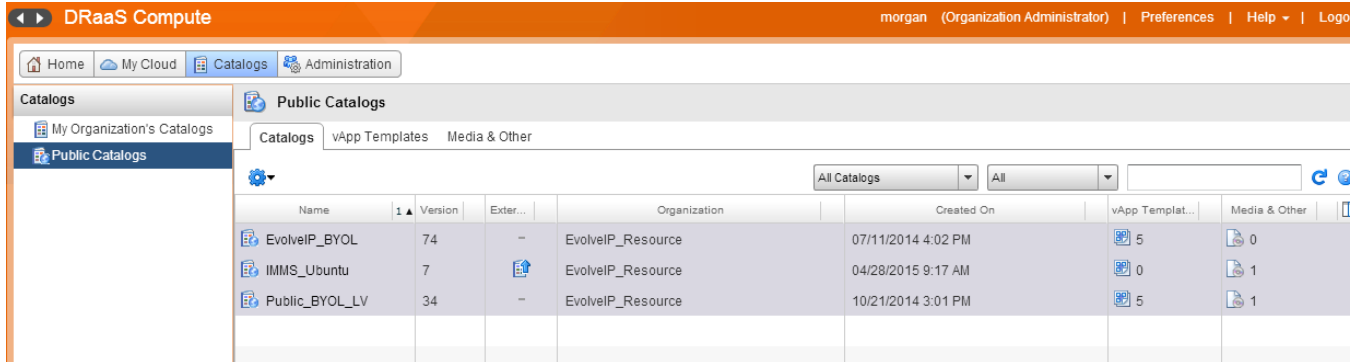
From the My Cloud tab you can access your logs of tasks and events within your VDC.



Catalogs

Under The catalogs tab you will see “my organization catalogs” and “public catalogs”. You can add catalogs, templates and media here. You can make different catalogs to organize your templates and chose who can view them.

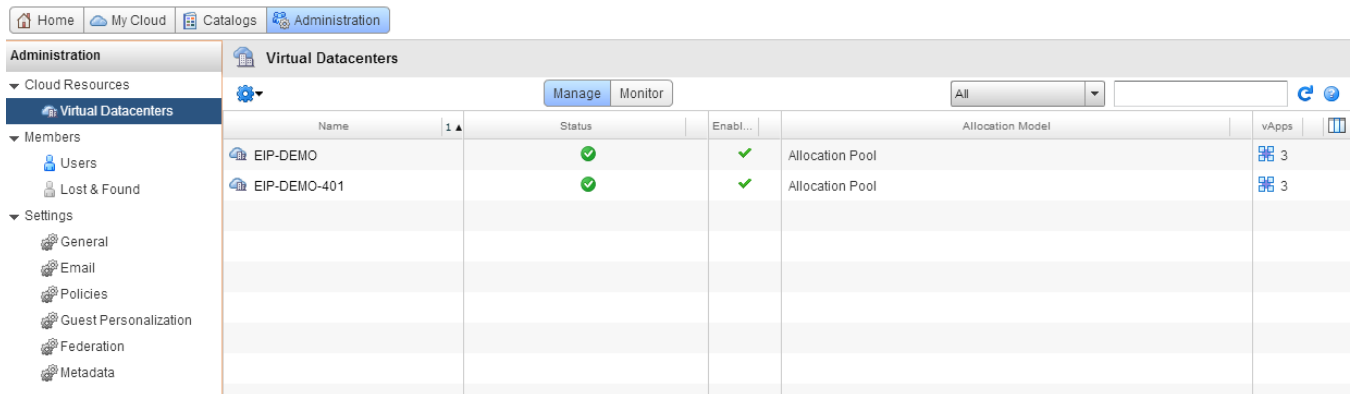
You can view from the drop down tab that’s labeled all “catalogs” or sort through which are yours and shared as well.

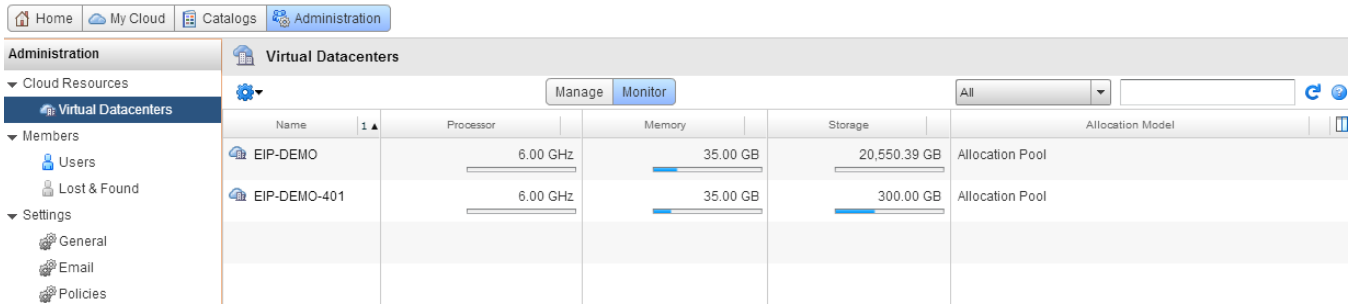


VDC Administration

Managing Virtual Data Centers

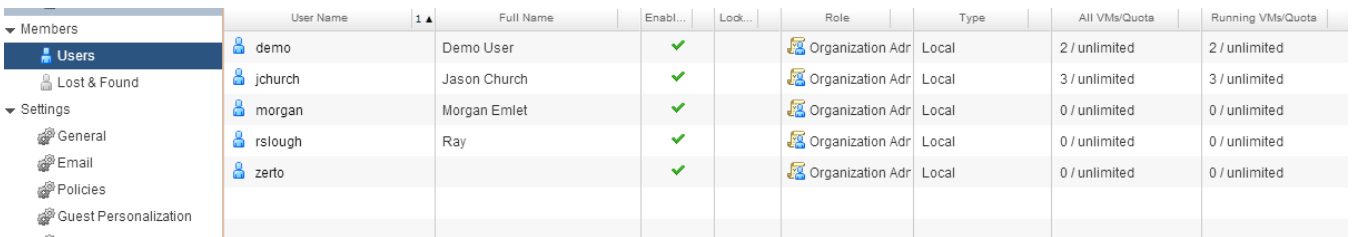
Under the administration tab you can manage and monitor your virtual data centers. By viewing your processor, memory and storage usage you can account for allocating or removing resources as needed.





Adding users to VDC Admin

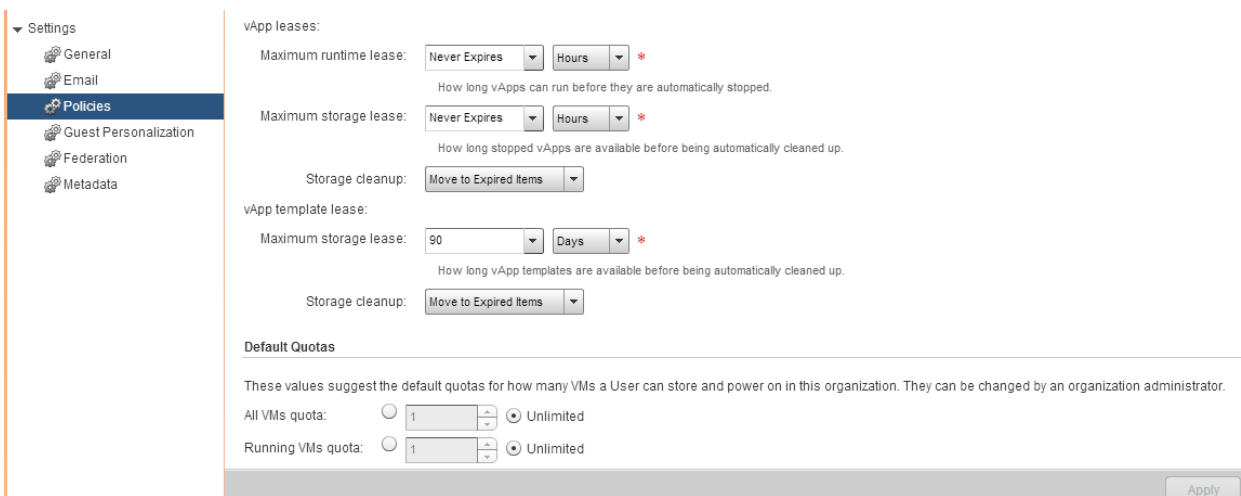
You can add users to your virtual data center administration under the administration tab by clicking the users tab and the + symbol. Here you can also set up notifications for your admin users.



Virtual Data Center Settings and Personalization

In this settings window you can:

- SMTP Server settings
- Leasing and quota requirements
- Add domains
- Manage metadata

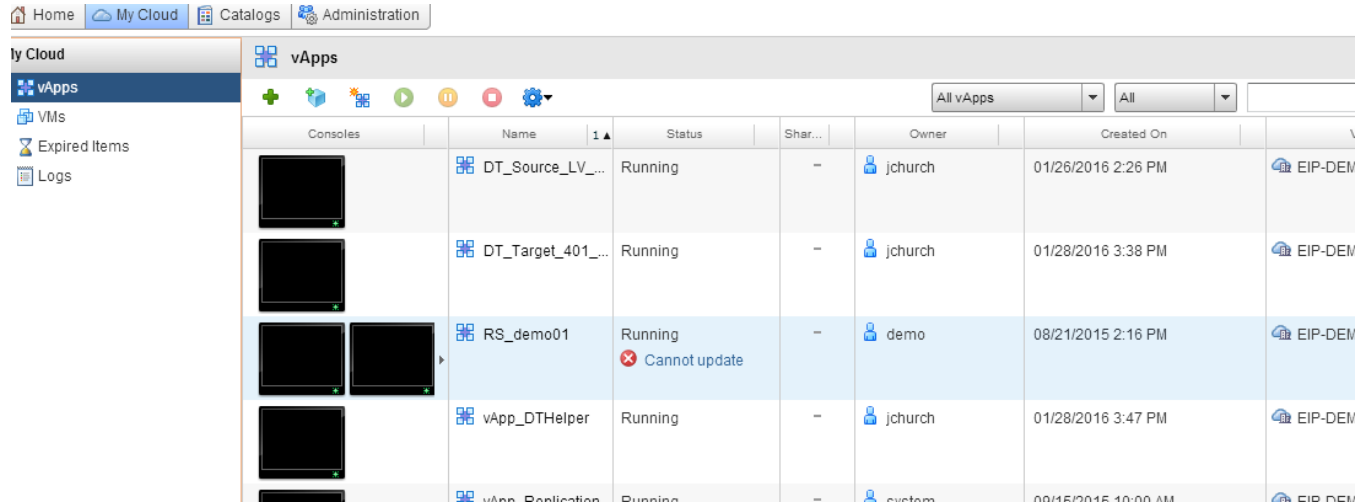


DRaaS ZT Portal

Testing Failover

Before testing, please login to both the vCloud portal and DRaaS ZT Portal.

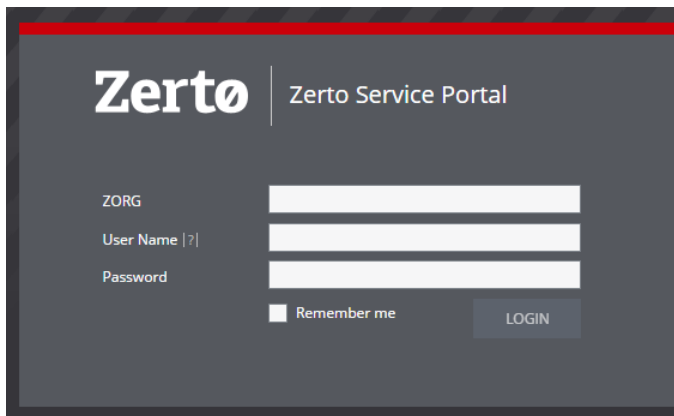
In the vCloud portal navigate to the vApps tab under my cloud



The screenshot shows the vCloud portal interface. The left sidebar has a navigation menu with 'My Cloud' selected. The main area displays the 'vApps' tab with a table of vApps. The table has columns for Consoles, Name, Status, Shar..., Owner, and Created On. The 'RS_demo01' vApp is highlighted in blue and has a red 'X' icon with the text 'Cannot update' next to its status 'Running'.

Consoles	Name	Status	Shar...	Owner	Created On
	DT_Source_LV_...	Running	-	jchurch	01/26/2016 2:26 PM
	DT_Target_401_...	Running	-	jchurch	01/28/2016 3:38 PM
	RS_demo01	Running Cannot update	-	demo	08/21/2015 2:16 PM
	vApp_DTHelper	Running	-	jchurch	01/28/2016 3:47 PM
	vApp_Replication	Running	-	custom	08/15/2015 10:00 AM

NOTE: You can login to Zerto via RDC if inside of your own network or from the web portal using your credentials



The screenshot shows the Zerto Service Portal login page. It features the Zerto logo and the text 'Zerto Service Portal'. Below this, there are three input fields for 'ZORG', 'User Name [?]', and 'Password'. There is a 'Remember me' checkbox and a 'LOGIN' button.

In testing, the servers can be brought up in an isolated network. If the IP mode is set to "none", no ip address is assigned. You can configure the IP address by editing the VPG in advance before the failover test.

In the DRaaS ZT interface, click the failover arrow: MAKE SURE IT IS SET TO TEST. In “Test” mode, production servers remain fully operational and online. In “LIVE” mode, production servers are automatically powered down as part of the failover. THIS WILL CAUSE A SERVICE INTERUPTION and should be used with caution. **Also, be mindful of network/IP configuration especially for IP routing, name resolution and AD registration.**



Select the VPG’s you want to test

Failover Test

SELECT VPGs EXECUTION PARAMETERS FAILOVER TEST

Select VPGs to failover test.

Search Select or search a gro...

<input type="checkbox"/>	<input type="checkbox"/>	VPG Name (# VMs)	Direction	Peer Site	Protection Status	State
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Product Lab (1)	↔	Customer1-Prem	Meeting SLA	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DemoReplication (1)	↔	Evolve IP - East	Meeting SLA	

Selection details: VPGs - 1, VMs - 1, Storage - 50.1 GB.

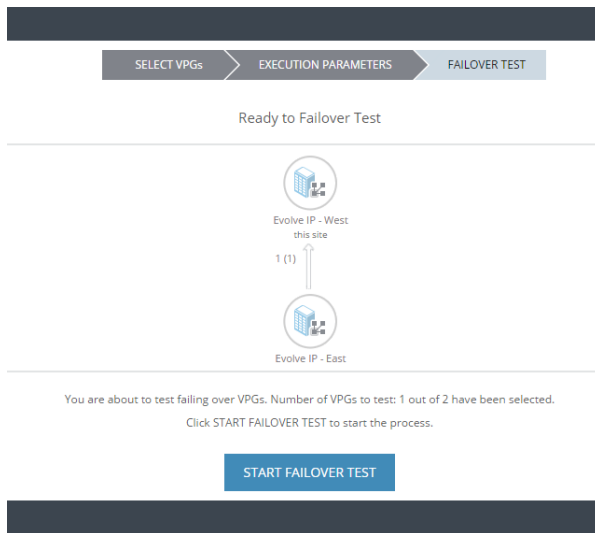
CANCEL PREVIOUS NEXT

Click “next” You are given the option of which checkpoint to use. Normally you would use the most current one; however, there could be a scenario where you need to bring up your environment from a previous point in time, for example human error or virus/malware infection.

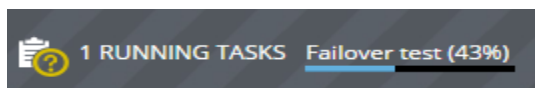
Select execution parameters for each VPG.


<input type="checkbox"/>	<input type="checkbox"/>	VPG Name (# VMs)	Direction	Peer Site	Checkpoint	Boot Order	Scripts
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	DemoReplication (1)	↔	Evolve IP - East	04/02/2016 16:06:33	-	-

Click “next” You should be presented with the box below. Be sure to confirm that it says “TEST” and then click the failover arrow



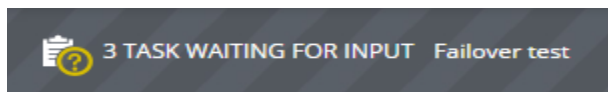
You should see the task show up in the Zerto interface.






Now switch over to the vCloud Director portal. You will need to click the refresh icon  for the new servers to show up. The new group will display as a new vApp as shown below

	vApp_Replication - testin...	Stopped	-	 system	02/04/2016 4:17 PM	 EIP-DEMO
---	------------------------------	---------	---	--	--------------------	--


Even though vCloud may look like it's done, go back to Zerto and watch the task progress. Depending on the size and number of servers being tested, it can take up to ten minutes.



At this point you are done with the DRaaS ZT interface until we fail back. It has brought the servers up in vCloud, so now we switch over to vCloud. It should look like below:

	vApp_Replication - testin...	Stopped	-	 system	02/04/2016 4:24 PM	 EIP-DEMO
---	------------------------------	---------	---	--	--------------------	--

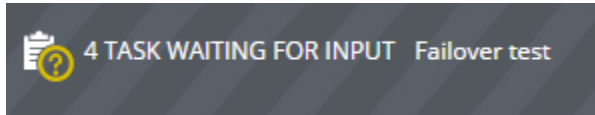
From vCloud, click on the VMs button on the left to get a listing of the servers. Please be sure to only look at the servers you failed over since multiple servers might show up on this page.

	Melted.Cheese - testing recovery	Powered On	Microsoft Windows S	NIC 0 : -
---	----------------------------------	------------	---------------------	-----------

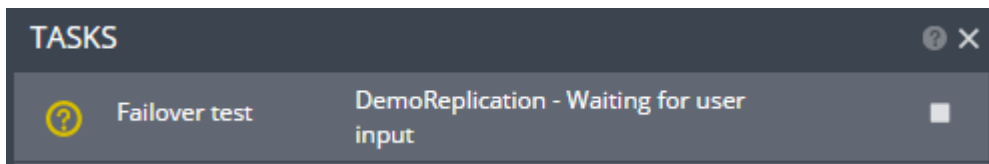
Here you can login to your servers and make sure all data is recovered and test applications.

Stopping the Test Failover

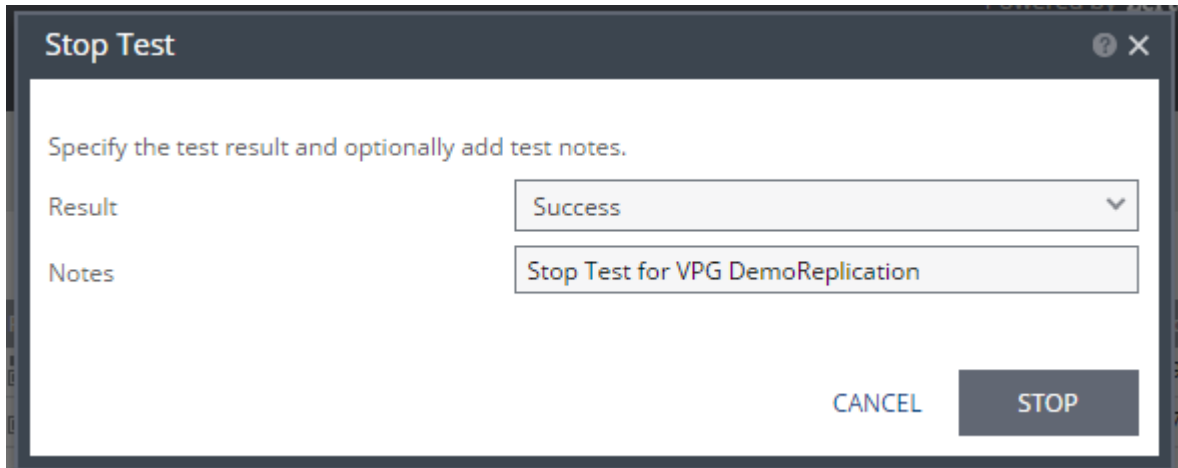
Click on the orange “task waiting for input” text (it would normally say 1 task unless you have multiple tasks running)



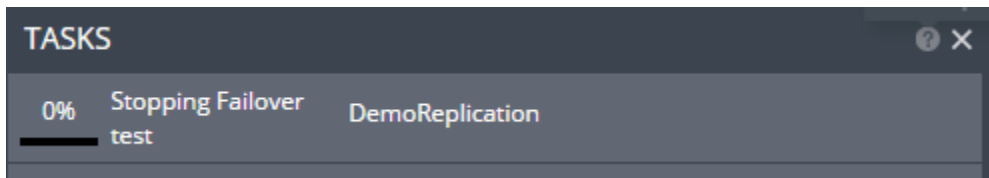
Click on the tasks waiting and a window will appear, you should see details on the task.



Click the square to initiate the test cleanup. The stop test window should pop up and select “stop”



Confirm a new task shows up indicating the test is stopping

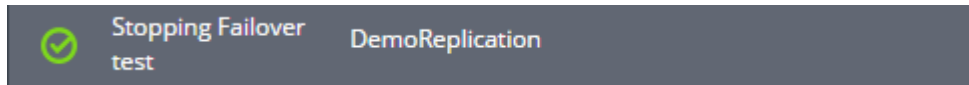


Check in vCloud. The servers should be powering off



Refresh the vCloud window and you should see the servers start to be removed from inventory. Again, this could take several minutes.

Once complete, Zerto should confirm a successful test with a green check mark.

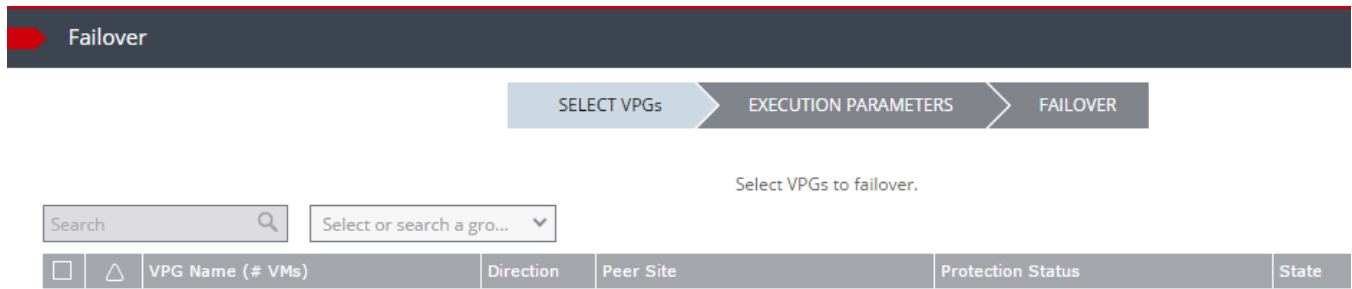


Real Failover

Set the toggle button to LIVE and select failover arrow. Note a real failover will power down production servers in the respective VPG.



A pop up window will appear with all of your VPGs, select the VPGs you want to failover and click next



Next select your execution parameters.

Here you can change your checkpoint to bring your VPG up from a previous point in time. Often times this is the most recent, but in some scenarios a previous point in time may be needed, such as virus infection. Finally, select your commit policy. Here you have three options:

NOTE: Commit finalizes the Failover process and Rollback makes everything go back to its default Source-to-DR replication without ever finishing the failover.

You can also select **NONE**. By selecting this you will manually have to failback your servers.



Select execution parameters for each VPG.

REVERSE PROTECT ALL EDIT SELECTED

Direction	Peer Site	Checkpoint	Commit P...	VM Sh...	Reverse Protection	Boot Order	Scripts
←	Evolve IP - East	03/02/2016 14:21:58	Auto-Commit	No	-	-	-

Click next and then “START FAILOVER” button



Ready to Failover

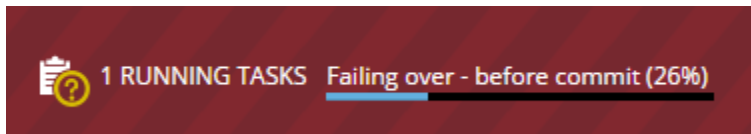


You are about to start failing over VPGs. Number of VPGs to failover: 1 out of 2 selected.
Once started the process cannot be undone. Running the failover will permanently alter the virtual machines and infrastructure of both the protected and recovery sites.

Click START FAILOVER to start the process

START FAILOVER

You will then see at the bottom of your screen 1 running tasks



Switching over to your vCloud Director portal you will see both your vApp and your VM’s populating. Here after they come up you can login and test (bring your applications up, test connectivity, etc.)

	Melted.Cheese		NIC 0 : -	-	-	vApp_Replication(1)
	vApp_Replication(1)		-	system	02/01/2016 3:28 PM	EIP-DEMO

Here I set the policy to auto-rollback after ten minutes: that means all changes I made (if any) will not be commited and my VPG will failback to the original checkpoint I selected. You will then see your VPG return to normal state within Zerto.

Editing a VPG

In the VPG tab within Zerto you can click on a VPG and review the stats, history, alerts, tasks and events. You can also change the configuration and some settings within your VPG

Click in the upper right hand corner where it says “edit VPG”

A pop up window will come up. At the top you can select what you want to configure from your VM’s to your storage policy within each VM. Clicking the summary tab will show you all of your configurations within one window.