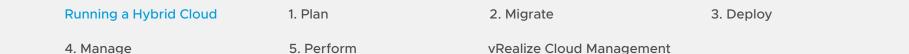
GET STARTED

### **vm**ware<sup>®</sup>

# 5 Ways to Avoid Hybrid Cloud Management Nightmares

A Guide to IT Success

francisco and



### Running a Hybrid Cloud

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

Running a Hybrid Cloud 1. Plan

2. Migrate

3. Deploy

4. Manage

5. Perform

vRealize Cloud Management

# 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.



	m vRealize Operations Manager	Home Dashboards Alerts Environment Administration	Q	С	Ĺ	°,
*	Migration Planning: Public	Cloud			Δ	?
	SCENARIO NAME	VMC Development Project				
	SELECT CLOUDS	VMC on AWS       Amazon Web Services       Salect Bington       Microsoft Azure       Salect Bington       Sal				
	APPLICATION PROFILE	• Configue         US West Northern California (us-west-1) EU reland (us-west-2) EU reland (us-west-2) Select your work Asis Pacht: Tokyo (ap-ortheast-1) CPU         1 M           Memory         C GB           Disk Space         C GB           Operating System         Any OS           Number of VMs         1				
	RUN SCENARIO	CANCEL				

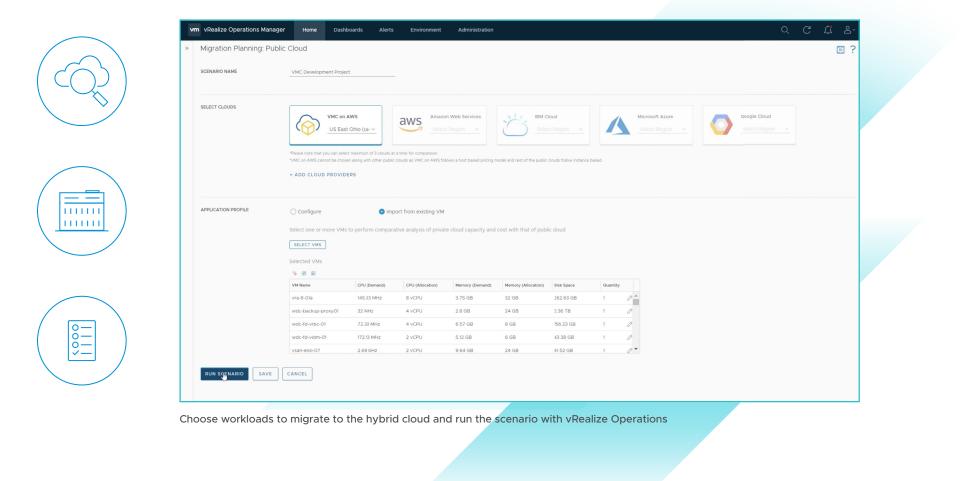
Start planning your hybrid cloud with vRealize Operations

Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

### 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.



Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

Review the results, which will include the number of hosts needed, the cost and any space remaining. From here you can change your subscription plan, add any applicable discounts, and even change your vSAN configurations like reservations, RAID level and fault tolerance.

vRealize Operations Manager Home Dashboards	Alerts Environment Administration			с С Ц L
Migration Planning: Public Cloud Results:				₿?
VMC Development Project				EDIT SAVE 😤 🗙
Scenario Migration Planning	Total to be Migrated 172 VMs CPU 170.11 GHz	Memory 1	.01 TB Disk Space	28.82 TB
VMware Cloud on AWS Assessment				
Recommendation Vou need 6 hosts. Vour utilization will be 17% CPU, 34% Memory, 86% Dis VMC Region US East Ohio (us-east-2) Total Cost US\$18,228* per month for a 3 year subscription CHANGE PLAN	Vou need 6 hosts. Vour utilization vill be 17% CPU, 34% Memory, 86% Disk Space VMC Region US East Ohio (us-east-2)		n actual utilization of the VMs te that VMware cloud on AWS Total: 165.6 GHz Total: 12.08	
*Cost display is with 0% discount. EDIT DISCOUNT		Disk Space Utilized: 4.8 TB Additional Information Reserved Capacity CPU Reserved Capacity Memory Fault Tolerance RAID Level EDIT CONFIGURATION	Totat 10.7 TB 0% 0% 1 RAID-5	

Review hybrid cloud resource needs and costs in vRealize Operations



3. Deploy

4. Manage

5. Perform

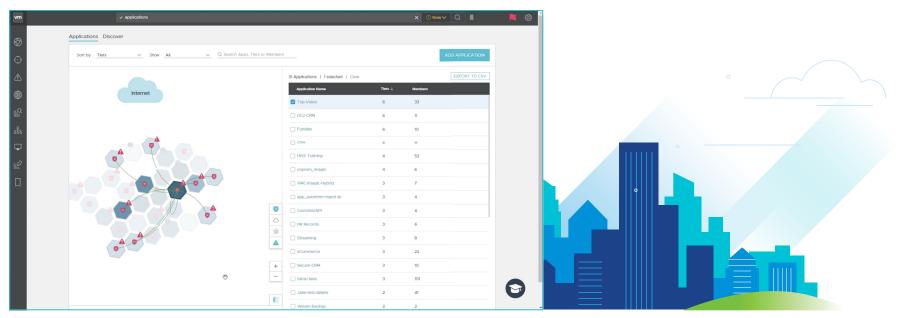
vRealize Cloud Management



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

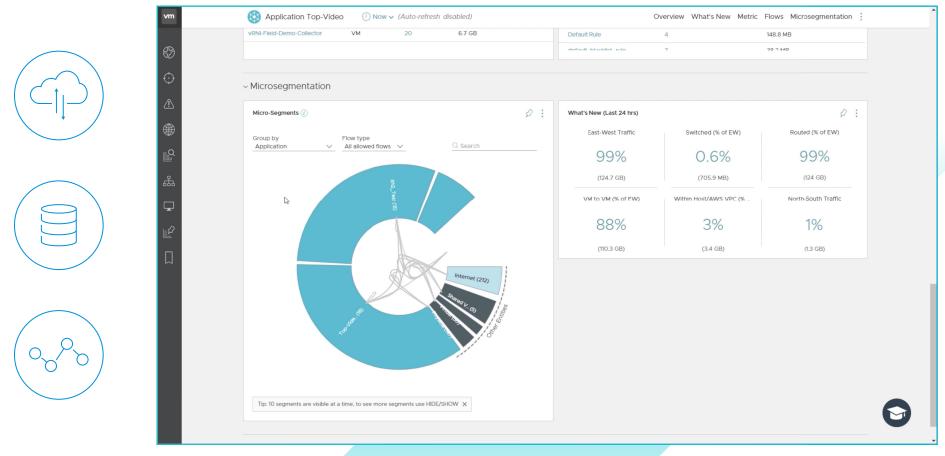
vRealize Cloud Management, with its AI driven flow-based analysis, automatically discovers your applications including connectivity between VMs and services and any connectivity to shared infrastructure or backend systems. This allows you to make intelligent decisions when migrating applications and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



Automated application discovery with vRealize Network Insight

Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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

Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.

m VMware HCX							⊘∽ hcx
🕜 Dashboard	Migration				₿.		
Infrastructure Site Pairing Interconnect	Tracking 🔚 Managen	ent 🛛 🛱 MIGRATE	C 🛛				Search
Services	Name	VMs/ Stora	ge/ Memory/ CPUs	Progress	Start	End	
<ul> <li>Migration</li> <li>Disaster Recovery</li> </ul>	✓ 6e0fb504-af04-4d	14-bf69-c4f61f90e217	$r \rightarrow \bigcirc$ 92b2022b-4	a1c-49ea-830d-ad45cd31e2	251		
Administration	✓ vRNI_hcx-3tierapp	3 /	4 GB / 2 GB / 3	Migration Complete	-		
Troubleshooting	0 / 3 selected				► GO		
🛅 Audit Logs	1. HCX-3TierApp-App01	Bulk	1 GB / 512 MB / 1	Migration Complete	08:01 AM	08:10 AM Feb 22	Migration completed
🚯 DICE 💿 Support	2. HCX-3TierApp-DB01	Bulk	1 GB / 512 MB / 1	O Migration Complete	08:01 AM Feb 22	08:09 AM Feb 22	Migration completed
	3. HCX-3TierApp-Web01	Bulk	1 GB / 512 MB / 1	O Migration Complete	08:01 AM Feb 22	08:09 AM Feb 22	Migration completed
	✓ ovc-south.cmbu.loca	al ← 🍙 vc-pks.vrni.	cmbu.local				
	✓ HCX-3TierApp-reverse-01	3 /	4 GB / 2 GB / 3	Migration Complete	-	-	
	0 / 3 selected				► GO	SCHEDJLE	
	1. HCX-3TierApp-App01	Bulk	1 GB / 512 MB / 1	Migration Complete	09:54 AM Feb 22	10:03 AM Feb 22	Migration completed
	2. HCX-3TierApp-DB01	Ball	1 GB / 512 MB / 1	O Migration Complete	09:54 AM Feb 22	10:03 AM Feb 22	Migration completed
	3. HCX-3TierApp-Web01	Bulk	1 GB / 512 MB / 1	O Migration Complete	09:54 AM Feb 22	10:04 AM Feb 22	Migration completed

Start migration and verify results with VMware HCX



Running	а	Hybrid	Cloud
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2. Migrate

3. Deploy

4. Manage

5. Perform

vRealize Cloud Management

# 3 Deploying Workloads in the Hybrid Cloud

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.

	rastructure Extensibility	Marketplace				
*	Cloud Zones	7 items				
S Configure 🗸		C.	2	Filter		① C ■
Projects						
Cloud Zones	R Phoenix Med	dical Cloud Zone	K VC-OVH/H	vbrid-Cloud	AWS-TMM	/ us-west-1
Kubernetes Zones	0		0		0	
Flavor Mappings	Dev		env:ovh		env:aws	
Image Mappings	Account / region	🚱 Santa Clara VC2 / sc	Account / region	🛃 VC-OVH / Hybrid-Clo	Account / region	AWS-TMM-SPC-01 /
Network Profiles	Compute Projects	3	Compute Projects	1	Compute Projects	2
Storage Profiles						
Pricing Cards						
Tags	OPEN		OPEN		OPEN	
B Resources 🗸 🗸						
Compute		sphere / SDDC-Datac	Azure-TMM	SDC 01 / Feet US	SC2VC3-SC	2001 BCA
Networks		sphere / SDDC-Datac	Azure-TMM	-SPC-UT/Edst US	·C SC2VC3-SC	ZCUFBCA
Security	Account / region	📀 VMC TMM / SDDC-D	env:azure		Field Business Critical	Applications Clusters. Field
Storage	Compute	8	Account / region	🔥 Azure-TMM-SPC-01 /	Account / region	🛃 Santa Clara VC3 / sc
Machines	Projects	0	Compute Projects	0	Compute Projects	1
Volumes			110,000			~
Kubernetes						
Activity	OPEN		OPEN		OPEN	

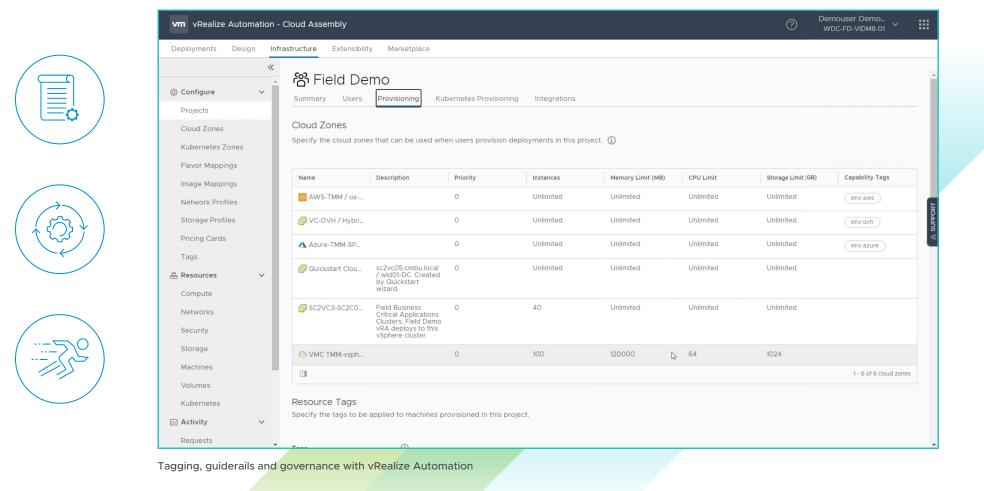
### How To Get Started

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.

Simplified cloud consumption with vRealize Automation Cloud Zones

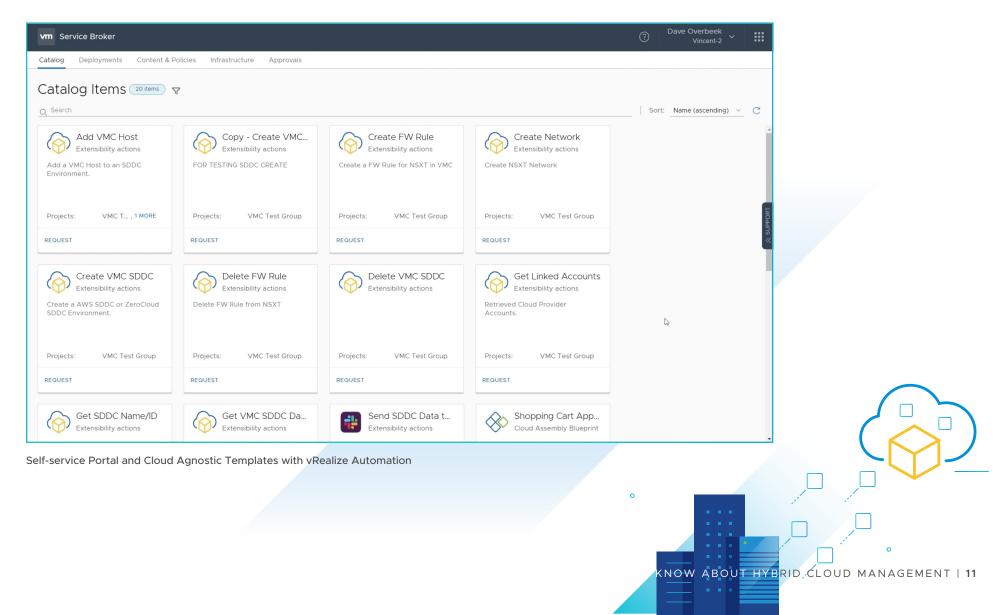
Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.



Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.

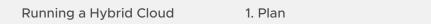


Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.

vm Service Broker						7	Dave Overbeek Vincent-2	
Catalog Deployments	Content & Policies Infrastructure	Approv	als					
New Request	t							
Shopping Cart App	- Hybrid Cloud Version <u>5</u> -							Â
Deployment Name *	Shopping Cart App in VMC							
Description	This Shopping Cart App is a two tiered application running in VMware Cloud on AWS.							
Project *	VMC Users ~		Costcenter *	915	١			<b>JPPORT</b>
CPU Count *	4	í	Hostname 1	Shop-Cart-App-Server				≫ SI
Memory Count (MB) *	8000	í	Hostname 2	Shop-Cart-DB				
Cluster Size	3	<u>(</u> )	Enable OS Monitoring					
Image Selection *	CentOS v	<u>(</u> )	Compliance *	PCI	<u>~</u>			
Hybrid Cloud Selection *	VMC ~	<u>(</u> )		PCI				
SUBMIT CANCEL				HIPPA				
				ISO				
Daily Price Estimate	\$7.98							
UPDATE DETAILS						2		

Example of vRealize Automation customizable template



3. Deploy

4. Manage

5. Perform

vRealize Cloud Management

2. Migrate

# 4 Managing Ongoing Capacity and Costs

Speaking of costs, it's important to manage the ongoing capacity and associated costs of your hybrid cloud, and with the Al 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.

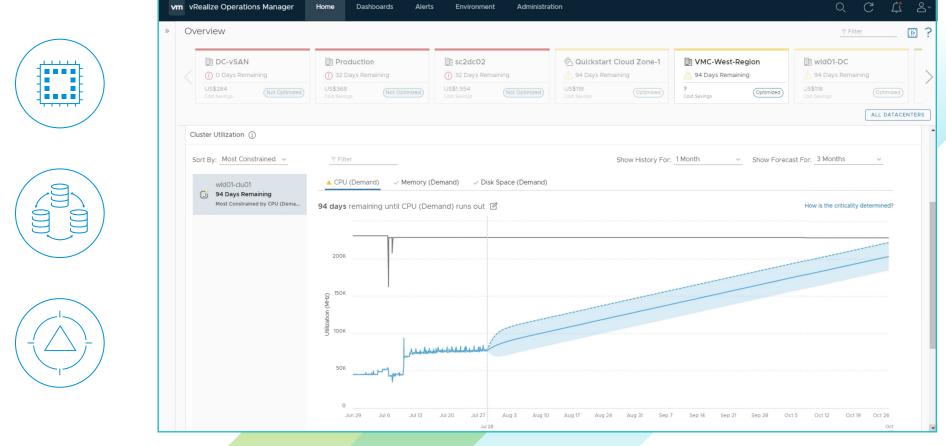


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-	VMC-West-Region					
	au this these standards	🔝 wid01-DC				
△ 94 Days Remaining	🚹 94 Days Remaining	/ 94 Days Remaining				
US\$118 Optimized ?	Optimized	US\$118 Cost Savings Optimized				
US\$558	PKS-DC-SCUTH 207 Days Remaining IS\$159 (Optimized)	Datacenter  220 Days Remaining  U\$\$517  (Optimized)	sc2dc03     229 Days Remaining     US\$1.085     (Optimized)	Consolidation Clusters  > 1 Year Remaining US\$195 (Not Continued)	DC2     ⊘ > 1 Year Remai	ining (Optimiz
Cost Savings Co	lost Savings	Cost Savings	Cost Savings	Cost Savings	Cost Savings	Coptimiz
Host Based Licensing	Hybrid-Cloud	Phoenix Medical Cloud	sc2dc01	🔝 sc2vc04-m01-dc01	⊗ sc₂vc₃-sc	2C01-BCA
⊘ > 1 Year Remaining	> 1 Year Remaning	⊘ > 1 Year Remaining			⊘ > 1 Year Remained	ining
	JS\$81 (Optimized)	US\$43 Cost Savings Not Optimized	US\$1,917 Cost Savings Not Optimized	US\$0 Cost Savings	? Cost Savings	Unkno
	SLA Tiering: BCA and S	🖄 VC-OVH / Hybrid-Cloud	🖄 VMC TMM-vsphere / SD	🔝 wdcdc01		
	> 1 Year Remaining	⊘ > 1 Year Remaining	⊘ > 1 Year Remaining	⊘ > 1 Year Remaining		

Review datacenter capacity with vRealize Operations

Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.



Al driving capacity trends with vRealize Operations

Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.

vRealize Operations Manager	Home Dashboards Alerts	Environment Administrat	ion		Q (7	
Reclaim @					<b>▼</b> Fir	
DC-vSAN     O Days Remaining     US\$284     Cost Savings     Not Optimized	Production 32 Days Remaining US\$368 Cost Savings Not Optimized	sc2dc02 3 2 Days Remaining US\$1,554 Cost Savings Not Optimized	Quickstart Cloud Zone-1 Output Optimized Optimized Optimized	VMC-West-Region 94 Days Remaining ? Cost Savings Optimize	Cost Savings	
VMC-West-Region						Cther
How much you can potentially save.		Total Reclaimable Ca	apacity			
US\$111/mo.	9 VMs With Reclaimable Resources 2 Orphaned Disks To Reclaim	Resource CPU Memory Disk Space	Re	elaimable Capacity 9 vCPUs 17.15 GB 300.3 GB		
Powered Off VMs Ust4/mo Idle V EXCLUDE DISK(s) EXPORT ALL	/Ms (Us\$106/mo) Snapshots (Us\$0/mo)	Orphaned Disks (Ust/mo)		Duration older than	x ∽ ⊤Filter	
	potentially orphaned VMDKs. It's your res	oonsibility to decide which are actually	subject to reclamation.			
v 🖯 wld01-sc2vc05-wld01-clu01-vsan0	1	US\$1/mo.	7.98 GB			
Disk Name		Cost Savings / mo 🤞	Reclaimable Dis	k Space	Last Modification Age	
ds:////412d2550-a7cd-45e8-af4b-54	29defd795a/centos7-1_4eb66641-d6e1-4e38	-a26b-8471d94 US\$1/mo.	4.13 GB		34 Days	
	7559825e0e/ubuntu-16-old-1_5bbe0829-09	1 4 40 00f o Hotel	3.85 GB		34 Days	

Reclaim unused resources with vRealize Operations

Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.

Select VMC SDDC		VM Price per Deploy	maat						<b>^</b>	
Name	Adapter Type	Group Name	Name	MTD Total Price (US\$)	VCPUs	Memory	Disk Space	OS Name		
CMBU-TMM	VMC Adapter	App-Test	Total	68.16	7 vCPUs	8 GB	101.95 GB	-	A	
CMBU-PRD-NSXT-M11GA-06-10-20	VMC Adapter	Apprest	kfultz-frontend-002458	16.17	2 vCPUs	2 GB	22.08 GB	- Ubuntu Linux (64-bit)		
ZeroCloud TMM	VMC Adapter		kfultz-frontend-002459	16.09	2 vCPUs	2 GB	22.08 GB	Ubuntu Linux (64-bit)		
vra-vmc-sddc	VMC Adapter		kfultz-loadGen-002461	17.24	1 vCPUs	2 GB	25.86 GB	Ubuntu Linux (64-bit)		
CHSDDC-Sep	VMC Adapter		kfultz-mysql-002457	17.24	2 vCPUs	2 GB	31.93 GB	Ubuntu Linux (64-bit)		
CMBU-PRD-NSXT-M12EA-07-23-20	VMC Adapter	GSS	Total	0.43	1 vCPUs	6 GB	66.57 GB	-		
CMB0-FRD-N3XT-MIZEA-07-23-20	Ville Adapter		promagnoli-frontend-004		1 vCPUs	2 GB	22.19 GB	- Ubuntu Linux (64-bit)		
			promagnoli-loadGen-0041			2 GB	22.19 GB	Ubuntu Linux (64-bit)		
			promagnoli-mysql-004182			2 GB	22.19 GB	Ubuntu Linux (64-bit)		
		MB-VRLI-BORK1	Total	17.21	1 vCPUs	2 GB	34.33 GB	-		
			mbradford-mysql-002606		1 vCPUs	2 GB	34.33 GB	Ubuntu Linux (64-bit)		
		MOAD Production S		39.77	2 vCPUs	4 GB	60.25 GB	-		
			mcclanahanc-frontend-00		1 vCPUs	2 GB	34.39 GB	Ubuntu Linux (64-bit)		
			mcclanahanc-loadGen-00		1 vCPUs	2 GB	25.86 GB	Ubuntu Linux (64-bit)		
		MOAD Retail Shopp	Total	51.15	5 vCPUs	6 GB	73.02 GB	-		
			diasj-frontend-002574	16.8	2 vCPUs	2 GB	23.09 GB	Ubuntu Linux (64-bit)		
			diasj-loadGen-002576	17.36	1 vCPUs	2 GB	26.02 GB	Ubuntu Linux (64-bit)		
	1 - 6 of 6 items								1 - 18 of 18 items	

2. Migrate

3. Deploy

#### 4. Manage

5. Perform

vRealize Cloud Management

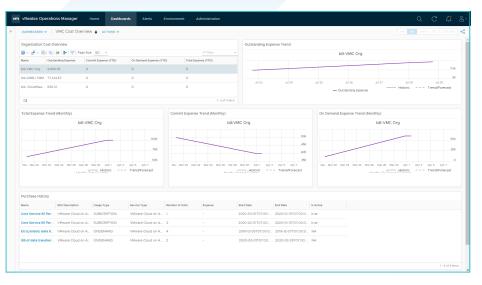
vRealize Opera	uona manager	Home Dashbo	ards Ale	rts Environment	Administ					Q	сţ
DASHBOARDS 👻	Assess Cost	ACTIONS ¥									
Total Inventory an	d Costs										
Datac 14	enters 4	vSphere Ho 138	ists	vSphere CI 40	usters	CPU Sock 360	rets	Total Cost of Owne 426,209 uss		al Cost Savi 7,506 u	ng Opportu IS\$/Mo
Datacenter Resou	rce Cost										
Name	VMs	Hosts	Clusters	Total Cost of Clusters	Datastores	Total Cost of Datastores	Monthly Direct Cost	Reclaimable vCPUs	Reclaimable Nemory	Reclaimab	le Disk Space
DC-VSAN	25	24	4	11,843.63 US\$/Month	24	1,200.45 US\$/Month	108.52 US\$/Month	5 vCPUs	1.2 GB	163.92 GB	
DC2	23	2	3	2,285.46 US\$/Month	10	171,775.69 US\$/Month	109.76 US\$/Month	4 vCPUs	7.84 GB	4.22 TB	
Datacenter	163	4	1	3,993.42 US\$/Month	5	52,500.1 US\$/Month	551.07 US\$/Month	34 vCPUs	7.73 GB	236.83 GE	3
Hybrid-Cloud	28	4	3	2,297.92 US\$/Month	6	1,248.9 US\$/Month	94.66 US\$/Month	28 vCPUs	11.24 GB	42.46 GB	
PKS-DC-SOUTH	71	6	2	4,496.09 US\$/Month	n 8	53,431.29 US\$/Month	240.04 US\$/Month	74 vCPUs	18.61 GB	532.44 GE	3
QE	1	1	1	969.73 US\$/Month	1	1.04 US\$/Month	3.38 US\$/Month	2 vCPUs	2.82 GB	22.33 GB	
											1 - 13 of 13 item
Top Most Expension	ve Clusters					Top Least Expensive	e Clusters				
Monthly Cluster Total C	ost	Objects	Hosts	Datastores	Virtual Machines	Monthly Cluster Total Cos	it Object	ts	Hosts	Datastores	Virtual Machin
5,609.7		wdcc01	4	3	85	0	C2		0	0	0
5,573.7		wdcc02	4	3	73	0	QE-C		0	0	0
5,379.4		Unused Hosts	6	8	0	0	CI		0	0	0
5,039		vSAN-Stretch Cluster	9	10	8	<b>4</b> 70.2	Mana	gement	1	2	12
4,643.7		sc2c01	6	2	68	822,6	Stora	ge	1	0	0
4,584.3		MGMT	4	5	35	1,0051	Comp	oute	2	4	16
4,396		sc2c03-BCA	4	6	124	1,098.3		cations	1	2	77

Manage private cloud costs with vRealize Operations



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.

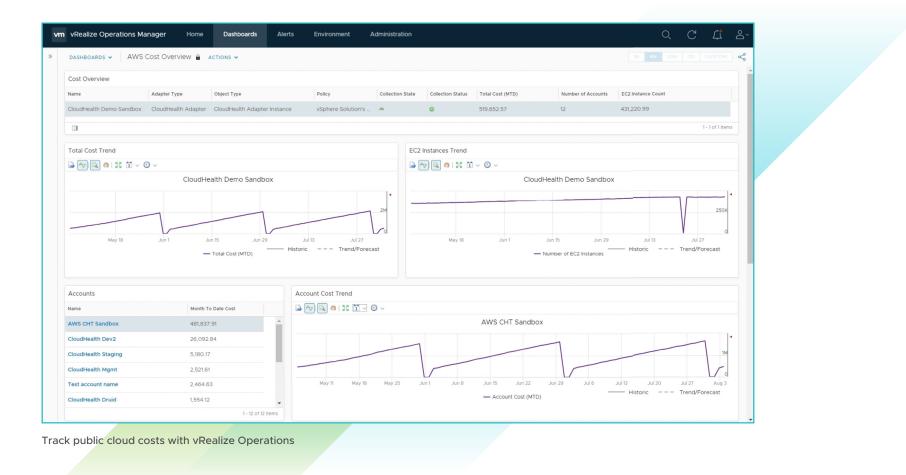




View hybrid cloud costs with vRealize Operations

Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.

Running	a Hybrid Cloud	
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2. Migrate

3. Deploy

4. Manage

5. Perform

vRealize Cloud Management

# 5 Ensuring the Best Possible Performance

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.

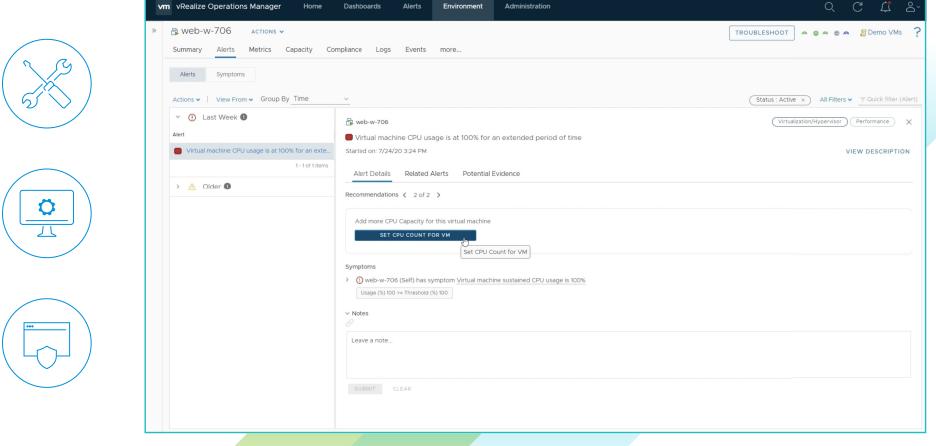
	vRealize Operati	ons Manager	Home Dashboards	Alerts	Environment	Administration		Q C Δ
C	DASHBOARDS ~	/M Contention <	ACTIONS ~					1H 6H 24H 7D CUSTOM
D	Datacenters			Analysis of 0	CPU Ready		Analysis of Memory Con	tention
N	lame	Clusters	ESXi Hosts ↓	VI 750			1,000	
v	Sphere World	23	89				750 -	
so	c2dc02	14	49	500 -				
so	c2dc01	2	12	Count			500	
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so	c2dc03	2	8					
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Detailed performance analytics with vRealize Operations

Running a Hybrid Cloud	1. Plan	2. Migrate	3. Deploy
4. Manage	5. Perform	vRealize Cloud Management	

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.



Alerts and Recommendations with vRealize Operations

3. Deploy

4. Manage

5. Perform

vRealize Cloud Management

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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.

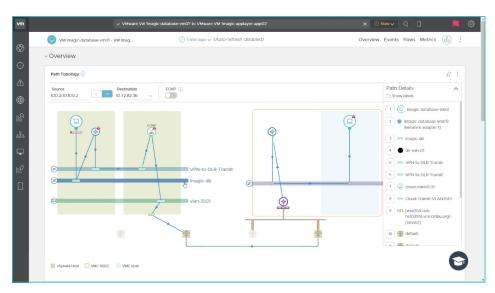
2. Migrate

3. Deploy

4. Manage

5. Perform

vRealize Cloud Management



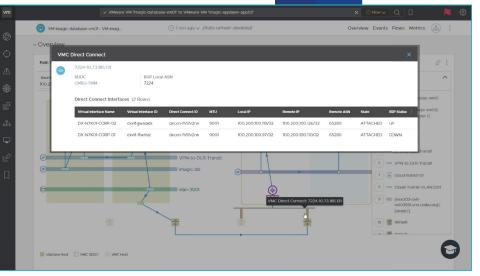


Full network visibility with vRealize Network Insight

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.



Hybrid cloud problems shown with vRealize Network Insight

Running a Hybrid Cloud

1. Plan

2. Migrate

3. Deploy

4. Manage

5. Perform

vRealize Cloud Management

### 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,<sup>1</sup> 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.

Learn more: www.vmware.com/products/vrealize-cloud-management

 IDC. "Worldwide Cloud System and Service Management Software Market Shares, 2019: SaaS and ITOM Drive Growth," 2019.



### **m**ware<sup>®</sup>

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