

# VMware Cloud on AWS - Managed Storage Policy Profiles

VMware Operations and Management



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# VMware Cloud on AWS - Managed Storage Policy Profiles

# Introduction

Managed Storage Policy Profiles (MSPP) integrate VM Storage Policy management into SDDC Management. Ensuring that any workload not assigned a custom storage policy complies with the services SLA requirements at all times. Thereby offloading mundane Storage Management to VMware Operations alongside the SDDC itself.



# How does it work?

The service creates and maintains a VM Storage Profile for each cluster in every SDDC "VMC Workload Storage Policy - <cluster name>").

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	Rules VM (	Compliance	VM Template	Storage Com	oatibility				
	General								
	Name			VMC Workload	Storage Policy - Clu	ister-1			
Description		VMC managed	workload storage p	olicy profile fo	or cluster Clu	ster-1. Please do NOT modify this	s profile		
				and do NOT ap	oply this profile to ot	her cluster!			
	Rule-set 1: V	SAN							
	Placement								
	Storage T	ype		VSAN					
	Site disast	er tolerance		None - standar	d cluster				5
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This policy is configured as the datastore default.

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	Alarm Definitions Scheduled Tasks General	Properties <sub>Name</sub>	WorkloadDatastore	
WorkloadDatastore	Hardware Acceleration	Type	vsan	
		Datastore Capabilities		
		> Storage I/O Control	Not supported	
		Default Storage Policy		EDIT
		Policy	VMC Workload Storage Policy - Cluster-1	
		Improved Virtual Disk Hom	e Storage Policy	EDIT
		Home object policy		
		Capacity		REFRESH
		Total Capacity	10.37 TB	
		Provisioned Space	3.43 TB	
		Free Space	9.3 TB	
				9

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As the cluster is scaled, the service ensures that the cluster-specific policy remains compliant with the service's SLA requirements if needed reconfiguring the policy settings and any data associated with it automatically.





## **Policy Settings**

MSPP configures the cluster specific policy to comply with VMConAWS SLA Requirements.

#### Table 1: Standard Clusters (Single-AZ)

Number of Hosts	Policy Configuration
5 or less	1 Failure – Raid-1 (mirroring)
6 or more	2 Failure – Raid-6 (Erasure Coding)

#### Table 2: Stretched Clusters (Multi-AZ)

Number of Hosts	Policy Configuration
Any	Dual Site Mirroring 1 Failure – Raid-1 (mirroring)

## Scale-out (add host)

After the host is added to the cluster, the service verifies the policy setting. If needed reconfiguring the underlying policy. This process, while automatic, can be monitored via vCenter.





# Scale-in (remove host)

Before the request is processed, the service checks to see if a policy reconfiguration will be necessary. If removing the node, and subsequent policy work would result in the cluster triggering Elastic DRS to add a host for capacity purposes, the removal is blocked.

If the check confirms the scale-in will complete successfully, the request is processed. First, reconfiguring the underlying VM policy if needed, and then removing the node. Since the host will continue to run workload while the policy reconfiguration is processing, billing continues until the node is removed.





# **Transient Space**

While the prechecks mostly mitigate this. New writes can trigger Elastic DRS to add a host because of capacity consumption. In such scenarios, the additional host must be manually removed once the usable capacity drops back below acceptable thresholds.

## **Disabling MSPP**

MSPP integration may be disabled on an individual VM or VMDK by creating and assigning custom VM Storage Policies.

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To disable MSPP on a cluster level change the datastore default storage policy to a custom storage policy.

# Monitoring Policy Compliance

Current policy status can be monitored with the vCenter Server UI and or API.

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	1			1	3 items			
	Rules VM Complian	ce VM Template Storage Com	patibility					
				<b>T</b> Filter				
	Name	Compliance Status		Last Checked				
	nyops-ad-01	✓ Compliant		Jan 20, 2021 4:12 PM	N			
	nyops-ad-02	<ul> <li>Compliant</li> </ul>		Jan 20, 2021 4:12 PM	И			
	hyops-adfs-01	<ul> <li>Compliant</li> </ul>		Jan 20, 2021 4:12 PM	Ν			
	nyops-adfs-02	<ul> <li>Compliant</li> </ul>		Jan 20, 2021 4:12 PM	4			
				Jan 20, 2021 4:12 PM	4			
	nyops-adfs-03	¢ compliant						
	nyops-adfs-03	✓ Compliant		Jan 20, 2021 4:12 PM	4			

In addition to the built-in reporting, a compliance notification is sent for any VM's that do not currently comply with SLA



requirements.



#### Summary

Managed Storage Policy Profiles redefine customer responsibility within the VMware Cloud on AWS Service. Empowering customers to let go of the mundane storage management so that they can instead focus on value generating work.



