#### VM Storage Profiles- Getting started

Depending on the size of your VMware environment, you may have detailed steps to deploy virtual machines. These steps should include gathering requirements for the virtual machines disks, and selecting the right datastore to meet the requirements.

Profile-Driven Storage, accessed from VM Storage Profiles on the Home page in vCenter, can help decrease the administration to deploy a virtual machine and ensure it is deployed to the correct datastore.

A bit more detail on VM Storage Profiles -

Storage Profiles allow you to assign information about your storage array, or characteristics, such as the RAID type and performance level. You can create profiles with any information that is meaningful to you and your environment.

There are two kinds of Storage Profiles, User Defined and Array Aware (VASA). If your storage vendor supports the latest vStorage API's, it can provide the characteristics of the back end storage, such as RAID level and if the storage is replicated. If your array does not support these API's you can create the User-Defined Storage Profiles with information about your array, or create tier levels such as gold, silver and bronze.

Here's how to get started-

From the Home page of your vSphere client, select VM Storage Profiles-



You first want to create a Storage Capability, select Mange Storage Capabilities-

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🕼 Create VM Storage Profile	Edit VM Storage Profile 🛛 🤞	🝸 Delete VM Storage Profile 🛛 🌆 🌆	nage Storage Capabilities	Enable VM Storage Profiles				
VM Storage Profiles     SQL Server Storage	Getting Started Summ	nary Virtual Machines	-					
	General Storage Capabilities							
	Name:	SQL Server Storage	SVC-DS5300					
	Description:	SQL Server VM Profile for DS sto	D55300					
	Associated VMs:	11						
	Non-compliant VMs:	4						
	Commands							
	bit VM Storage Pro	file						
1								

In the Mange Storage Capabilities screen, select Add. This is where you create a User Defined Storage Capability. You can create a descriptive name and add details for your Storage Capability. You can also modify your existing Storage Capabilities from this screen. Click OK and Close when you are finished.

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		OK		
	Help			Close

Now that you have your Storage Capability created, you can create a VM Storage Profile. In VM Storage Profiles select Create VM Stroage Profile. Give your new storage profile a name and description and click next.

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Create New	VM Storage Profile			
<b>VM Storag</b> Enter th	e Profile Properties he name and the description of t	his profile below.		
Profile Prog Select Storag Ready to Cor	perties pe Capabilities mplete	torage		
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The next screen will display the Storage Capabilities that you created in step 3. Select the storage capability that you want to associate with this storage profile and click next.

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Review the summary page and click finish to complete.

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The next step is to apply your VM Storage Profile to your clusters. Click on Enable VM Storage Profiles, and then select the cluster, or clusters that you want to apply it to.

Select the Enable option. Notice you can disable a Storage Profile on a cluster as well.

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😪 XIV-VMFS	profiles. To enable the feature	for a cluster, all hosts	luster. To enable the reature for a f in the cluster must have a license th	host, the host must have a license that inc hat includes VM storage profiles.	ludes VM storage
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	AppCluster02		All hosts Licensed	Enabled	
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	AppCluster04	PAC	All hosts Licensed	Enabled	
	ER10Cluster01	PCO	All hosts Unlicensed	Unknown	
	ER10Cluster02	PCO	All hosts Unlicensed	Unknown	
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You can create and assign a User-Defined Storage Capability from the datastores inventory as well.

Right click on the datastore and select Assign User-Defined Storage Capability.



The User-Defined Storage Capability box will then allow you to select one of the Stroage Capabilities you have created or create a new one by selecting New...

Selecting New will bring up the dialog box that is shown in step 3.



Finally we can to the reason we are doing all this, apply the Storage Profile to our VM. In your inventory, select the VM you want to apply the Storage profile to, right click and select VM Storage Profile - Mange Profiles

pacwpwebsvr?	3		Bas	ic Tasks
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	VM Storage Profile		•	Manage Profiles
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From the Home VM Storage Profile dialog box, select the profile you want to apply to the virtual machine and then click Propagate to disks.

If you have multiple disks on the virtual machine you can to set a different storage profile on each hard disk.

ome	TMPT_W2KR25QL - Virtual Machine Properties	
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wp		Propagate to disks
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wp		Select a virtual disk and apply a separate VM storage profile to it.
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So now when you clone a virtual machine that has the storage profile attached, you are presented with the list of datastores that are Compatible to your profile.

d	Clone ¥irtual Machine					PIDX
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i:	Storage	Same format as source	e	<b>_</b>		
i ⊞	Guest Customization Ready to Complete	Select a destination st	orage for the virtua	al machine files:		
n F	······	VM Storage Profile:	SQL Server Storage	•		
E		Name	Drive Type	Capacity Provisioned	Free Type	Storage [
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E		PAC-C4-DS53-	Non-SSD	1023.75 GB 148.56 GB	875.34 GB VMFS5	_
t t		PAC-C4-DS53-	Non-SSD	499.75 GB 984.00 MB	498.79 GB VMFS5	
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;		Disable Storage	DRS for this virtual	machine		
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	Help			< Ba	ock Next >	Cancel

You can check to see if a vitual machine is compliant with the assigned Storage Profile. select the summary tab of the virtual machine and check the VM Storage Profiles is displayed on the lower right.

misc04sql Summary Resource A	Allocation Performance Tasks & Events 4	Alarms Console Permission	ns Maps Stor	rage Views 🔪 Update Ma
General		Resources		
Guest OS: VM Version: CPU: Memory: Memory Overhead: VMware Tools:	Microsoft Windows Server 2008 R2 (64 8 1 vCPU 2048 MB 37.74 MB © Running (Current)	Consumed Host CPU: Consumed Host Memory: Active Guest Memory: Provisioned Storage: Not-shared Storage:		29 MHz 2080.00 MB 40.00 MB Refresh Storage Usage 42.05 GB 42.05 GB
IP Addresses: DNS Name: EVC Mode: State: Host: Active Tasks: vSphere HA Protection	misc04sql N/A Powered On paces×15-8.phs.org : 📀 Protected 🖓	Storage Storage AppCluster4-XIV5 Network Metwork	Status Normal Type Distributed port	42.05 GB
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Edit Settings     Onen Console				

Hopefully your Storage Profiles will help reduce some misconfigurations when deploying virtual machines, and save time moving them to the correct datastores!