

Axcient Virtual Appliance Deployment Guide

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Introduction

The Axcient Virtual Appliance (vApp) is a virtualized Axcient appliance which implements the Axcient protection solution. The vApp is a VMware 5.1 (and above) formatted appliance that is can be deployed on top editions of VMware vSphere from Standard to Enterprise Plus.

Axcient offers the following vApp sizes for ESX version 5.1 with Update 1 and later:

- 1TB
- 2TB

Axcient offers the following vApp sizes for ESX version 5.5 and above:

- 4TB
- 6TB
- 10TB
- 14TB
- 20TB

Host Requirements

The Axcient vApp requires a Virtual Host with processors that support **Intel VT-x with EPT** or AMD Operton processors that support **AMD-V with RVI**.

For Intel identification, please use Intel's Processor Identification Utility to verify that the Virtual Host machine has the right support. When the utility runs, it should show Yes as follows:

If Intel's utility displays a *No*, then the hardware does not support the Axcient vApp. Eve though the vApp will boot up, it will not be able to perform backups, BMRs and local failovers.

To learn more about Virtual Host requirements, please consult the following documents:

- vApp Specification Sheet
- vApp Requirements Sheet



Figure 1 - Intel Processor Identification Utility



Install Using vSphere Windows Client

This guide assumes that the user has already downloaded the OVF Template has been received and downloaded to an accessible location from the machine performing the vApp deployment. Please make sure that the OVF Template has been downloaded before continuing.

If the user has not received an OVF Template by email, please contact Axcient Support.

Warning!

Do not use the free download version of the vSphere Windows Client to deploy a vApp that will be larger than 2TB.

The free vSphere Windows Client available for download on the VMware website limits all VMDKs to a maximum of 2TB. Any virtual device which exceeds 2TB will encounter system issues, such as powering off automatically.

The user must use the paid vSphere Web Client to create a vApp larger than 2TB.

STEP 1

Log in to the vSphere Windows Client.

🕗 VMware vSphere Client	
vmware [.] VMware vSphere Client	E
To directly manage a singl To manage multiple hosts, vCenter Server.	e host, enter the IP address or host name. enter the IP address or name of a
IP address / Name:	vc5.axcient.inc 💌
User name:	
Password:	
	Use Windows session credentials
	Login Close Help

STEP 2

Navigate to the host machine and click **File > Deploy OVF Template**



STEP 3

The Deploy OVF Template screen will appear. Click the **Browse** button.

Locate and select the downloaded OVF Template.

🛃 Deploy OVF Template	
Source Select the source location.	
Source OVF Tenciate Details Name and Location Disk Format Ready to Complete	Deploy from a file or URL [C:Users/Wdministrator/Desktop/Avcient_Vapp_SN-VA0115AI] Enter a URL to download and install the OVF package from the Internet, or specify a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.

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STEP 4

Review the OVF template details and click **Next**.



STEP 5

Name the vApp and click **Next**.

Axcient recommends naming the vApp a name which makes it easily identifiable.

Name and Location Specify a name and loca	ation for the deployed template
Source OVF Template Details Name and Location Disk Format Ready to Complete	Name: Axcient Virtual Appliance The name can contain up to 80 characters and it must be unique within the inventory folder.

STEP 6

In the Disk Format screen, select **Thin Provision** and the click **Next**.

🛃 Deploy OVF Template			×
Disk Format In which format do you w	ant to store the virtual disks?		
Source OVF Template Details Name and Location Disk Format Ready to Complete	Datastore: Available space (GB):	datastore 1 3114.7	
	Thick Provision Eager 2 Thin Provision	leroed	

STEP 7

In the OVF summary screen review the OVF deployment details. Make sure the *Power on after deployment* checkbox is **unchecked**.

Click **Finish** when ready.

Please proceed to the <u>Enabling Nested Virtualization</u> section to finish the vApp installation process.

Deploy OVF Template		
Ready to Complete		
Are these the options y	ou want to use?	
Source		
OVF Template Details	When you click Hinish, the deploym	nent task will be started.
Name and Location	Deployment settings:	
Ready to Complete	OVFfile:	C:\Users\Administrator\Desktop\Axcient_Vapp_9N-VA011.
ready to complete	Download size:	800.7 MB
	Size on disk:	Unknown
	Name:	Axcient Virtual Appliance1
	Host/Cluster:	arsi-esx.axcient.inc
	Datastore:	datastore1
	Disk provisioning:	Thin Provision
	Network Mapping:	"Network 1" to "VM Network"
	Power on after deployment	
usta 1		
neip		< Back Finish Cancel

Enabling Nested Virtualization

Further configuration steps are required in order to enable nested virtualization features of the Axcient vApp. These following steps are only required when deploying a vApp using the vSphere Windows Client.

Nested Virtualization must be enabled so that the vApp is able to perform important functionality. The consequences of **not enabling** Nested Virtualization is the inability to:

- 1. Add virtual hardware to the vApp such as a virtual NIC and USB ports.
- 2. Upgrade or otherwise change the memory on the vApp.
- 3. Perform local Failover VMs on the vApp.
- 4. Perform a Bare Metal Restore on devices.

In the following steps you will:

- 1. Download a configuration file from the vApp.
- 2. Modify the configuration file to enable Nested Virtualization.
- 3. Upload the edited configuration file in the vApp.

STEP 1

Select the Host, and the navigate to the datastore. Right click the datastore and select the **Browse Datastore** option from the drop-down menu.



STEP 2

Navigate to the newly created vApp and select the **.vmx** file. Then click the **Download** button to download the file loc-ally.

If a Warning window appears to confirm the download, click **Yes**. The user will need to designate the download location. Axcient recommends download the .vmx file to the Desktop for easy access.

STEP 3

Open the downloaded .vmx file in a preferred text editor such as Wordpad. Add the following edit to the **end of the .vmx file** (the user can copy/paste the following text):

vhv.enable = "TRUE"

Press the **Save** button to save the edit. Please note that any extra characters or spacing, or lack thereof, will cause the nested virtualization to not be enabled.

	😰 Datastore Browser - [datast ڬ]						
	💩 🕼 💋 🛢 🛢 🗙 🗙	0					
	Folders Search	[datastore1]/	Axcient Virtual Appliar	nce			
		Name		Size	Provisioned Size	Туре	Path
	👘 👘 vmkdump 🧧 🐸	🔒 Axcient V	irtual Appliance.vmx	2.21 KB		Virtual Machine	[datastore1] Axcient V
	- 📁 ISO	Axcient V	irtual Appliance.vmdk	1,728,512.00 KB	24,064,000.00 KB	Virtual Disk	[datastore1] Axcient V
	bmr test_4	Axcient V	irtualAppliance_1.v	6,144.00 KB	1,073,742,000.00 KB	Virtual Disk	[datastore1] Axcient V
	bmr test	Axcient V	irtual Appliance.vmd	0.27 KB		File	[datastore1] Axcient V
- 1	bmr test_1	Axcient V	irtual Appliance.vmsd	0.00 KB		File	[datastore1] Axcient V
	hmr test 3	-					
	Windows 8						
	5.0 bmr test						
	Karlent Virtual Appliance						
	I	•		III			+
	1 object selected 2.21 KB						

annotation = "Frior to deploying this Virtual Appliance please: OAI. Refer to the latest product documentation by clicking on the [22Product]22 link above.[OA2. Note that this Virtual Appliance requires a DHCP assigned IP address to start up and register itself with Axcient successfully.[OA3. Deploy this Virtual Appliance using VMware vSphere Web Client version 5.1 (or above).[OA4. Note that you can change the disk type from Thick Provisioned to Thin Provisioned during deployment." guestOS = "ubuntu-d*" numcpus = "4" memSize = "I6384" vhv.enable = "TRUE" toolScripts.afterResume = "TRUE" toolScripts.heforeSwepend = "TRUE" toolScripts.heforeSuspend = "TRUE" tools.upgrade.policy = "manual" uuid.blocation = "56 4d d7 09 45 6a 2c df-2c 90 1c 39 ac b9 d9 f5" uuid.location = "56 4d d7 09 45 6a 2c df-2c 90 1c 39 ac b9 d9 f5" uuid.location = "52 b5 85 14 20 0a 0f b7-99 2f 16 e5 bf ff 8a 57" [whr.enable = "TRUE"]

STEP 4

Back in the datastore browser of the vSphere Windows Client, click the **Upload** button to navigate to and upload the newly edited .vmx file.

If a Warning window appears to confirm the upload, click **Yes** to finish.

The vApp is now ready to be powered on.

Folders Search [datastore1] Axcient Virtual Appliance						
Vieldump So Inr test_4 bmr test_4 bmr test_2 bmr test_2 bmr test_2 bmr test_2 bmr test_2 bmr test_2 vindows 8 S.0.bmr test Axcent Vrbual Applance	Name Ancent Virtual Appliance.vmc Axcent Virtual Appliance.div Axcent Virtual Appliance.div Axcent Virtual Appliance.vmf Axcent Virtual Appliance.vmd	Size 2.21 KB 1,728,512.00 KB 6,144.00 KB 0.27 KB 0.00 KB	Provisioned Size 24,064,000.00 KB 1,073,742,000.00 KB	Type Virtual Machine Virtual Disk Virtual Disk File File	Path [datastore1]Axcie [datastore1]Axcie [datastore1]Axcie [datastore1]Axcie	
	<	m				

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Install Using vSphere Web Client

This guide assumes that the user has already downloaded the OVF Template has been received and downloaded to an accessible location from the machine performing the vApp deployment. Please make sure that the OVF Template has been downloaded before continuing.

If the user has not received an OVF Template by email, please contact Axcient Support.

Note

The vSphere Web Client is **required** in order to deploy a vApp larger than 2TB.

The vSphere Web Client is a paid VMware client. Please confirm with your system or network administrators that you have access to a vSphere Web Client in order to deploy the vApp.

STEP 1

Log in to the vSphere Web Client and click on **vCenter** in the left-hand menu.

/mware® vSphere Web Client 🛛 🔒 🖉					
History	Ŧ	🚹 Home			
🚹 Home		Getting Started Home			
🝘 vCenter	>				
🚡 Rules and Profiles	>	Click the Home tab to access			
O vCenter Orchestrator	>	Welcome to the VMware vSp			
🍇 Administration	>	The vSphere Web Client introduces			
🗊 Tasks		consistently displays solution persp			
📄 Log Browser					
Kents		Navigator			
Tags		in the inventory.			
Q New Search	>	2 Content Area			
		Information about currently			

STEP 2

Next, click on the **VMs and Templates** option in the left-hand menu.

vmware [®] vSphere	Web	Cli	ent 🔒 🗗
Home >	0	Ŧ	🕑 vCenter Home
vCenter			Getting Started
🚱 vCenter Home			What is vCenter?
 Inventory Trees 			The vCenter inventory is where
Hosts and Clusters		>	objects associated with vCente
🛃 VMs and Templates		>	clusters, networking, storage, a
Storage		>	machines.
🧕 Networking		>	The Inventory Lists allow you to
			vCenter Server systems. These
Center Servers	1	>	enable easier batch operations
Datacenters	1	>	The inventory tree is still availa
Hosts	2	>	hierarchically in four categories
Clusters	1	>	Clusters, VMs and Templates, Networking.

STEP 3

Right click the target management node, and select the **Deploy OVF Template** option.



STEP 4

If the Client Integration Plug-in is not installed, the Axcient vApp will not be able to run image backup jobs or Failover VM jobs.

Click on the link to download the Installer. Close all open browser tabs before installing the Plug-In. Once completed, start back at *Step 1*.

Deploy OVF Template

 1 Source
 Select source

 1 Select source
 Select the source location

 1 b Review details
 The Client Integration Plug-in must be installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to download the installed to enable OVF functionality. Click the link below to

STEP 5

Click the **Browse** button to locate the downloaded OVF template.

Once located, click **Next**.



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STEP 6

Review the OVF Template details, and click **Next** to continue.

Deploy OVF Template			? H
1 Source 1 a Select source	Review details Verify the OVF temp	plate details	
✓ 1b Review details	Product	Axcient Virtual Appliance	
2 Destination	Version	Use Axcient RMC at my.axcient.net to determine software version	
2a Select name and folder Vendor		Axcient, Inc.	
2b Select a resource	Publisher	⑦ No certificate present	
2c Select storage	Download size	800.7 MB	
3 Ready to complete	Size on disk	Unknown (thin provisioned) 1.0 TB (thick provisioned)	
	Description	Prior to deploying this Virtual Appliance please: 1. Refer to the latest product documentation by clicking on the "Product" link above.	r T

STEP 7

Name the vApp and select the destination.

D

Deploy OVF Template

2 Destination

1a Select source 1b Review details

2a Select name and folder

2b Select a resource

1 Source

Select a resource

Q Search

Select where to run the deployed template

🕶 🌆 Customer Satisfaction Lab

🖵 🗊 Support Cluster

Select location to run the deployed template

Please note that the default name for the vApp is Axcient Virtual Appliance. This can be changed to a preferred name by the user.

1 Source Select name and location for the deployed template 1a Select source Specify a name and location for the deployed template 2b Select name and folder Name: Axclent Virtual Appliance 2b Select a resource Select a folder or datacenter 2c Select storage Select name Satisfaction Lab 3 Ready to complete Image: Templates Image: Database Image: Templates Ima	ploy OVF Template			() >>
Coreto Amaximond	Source 1 Source 1a Select source 1b Review details 2 Destination 2a Select name and folder 2b Select a resource 2c Select storage 3 Ready to complete	Select name and folder Specify a name and location for the deployed t Name: Axcient Virtual Appliance Select a folder or datacenter Search Search Search Customer Satisfaction Lab Customer Satisfaction Lab Customer Satisfaction Lab Customer Satisfaction Lab Demonstrates Daniel Daniel Dave Donelle Evan Deve Sason Justin Kathlyn Minne	emplate	The folder you select is where the entity will be located, and will be used to apply permissions to it. The name of the entity must be unique within each vCenter Server VM folder.
Dark Next Cirich Occard		Loreto Raymond	•	

STEP 8

Select the resource pool and then click **Next** to continue.

STEP 9

In the *Select virtual disk format* field, select the **Thin Provision** option, as well as the appropriate datastore.

2d Setup networks 3 Ready to complete	7, 192.168.72.42		Sele	Select a cluster, host, vApp, or resource pool in which to run the deployed template					
Deploy OVF Template						(?) ₩			
1 Source 1a Select source	Select storage Select location to store the files for the deployed template								
1b Review details	Select virtual disk format:	Thin Provision							
2 Destination	VM Storage Policy:	None	*	0					
 2a Select name and folder 	The following datastores a	are accessible from the d	estination resource th	at you selected. Sele	ct the destination (datastore for the			
2b Select a resource	virtual machine configuration files and all of the virtual disks.								
2c Select storage	Name	Capacity	Provisioned	Free	Туре	Storage DRS			
2d Setup networks	Datastore	5.46 TB	2.70 TB	4.28 TB	VMFS				
3 Ready to complete									

Click **Next** to continue.

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	Deploy OVF Template						
STEP 10	1 Source ✓ 1a Select source ✓ 1b Review details	Setup networks Configure the networks the deployed template should use					
التربيب محمد والبدير والبار والمتعارين المراجع والمحمد و		Source Destination		Configuration			
Select the V/M network that the VApp Will be a part of	2 Destination	Network 1	VM Network	▼ O			
be a pan or.	2a Select name and folder 2b Select a resource						
	 2c Select storage 						
Click Next to continue.	2d Setup networks 3 Ready to complete	IP protocol: IPv4	IP allocation: Static - Manual 🕕				
		Source: Network 1 - Description					
		Network 1					
		Destination: VM Network - Protocol settings					
		No configuration needed for this network					
	Deploy OVF Template			(?)			
STEP 11	1 Source ✓ 1a Select source						
Confirm the the vApp configuration	 1b Review details 	OVF file	C:\Users\AdministratonDesktop\Axcient_Vapp_SN-VA0115A0011600	012_1TB.ova			
details	2 Destination	Download size Size on disk	800.7 MB Unknown				
	2a Select name and folder 2b Select a resource	Name	Axcient Virtual Appliance				
	 2c Select storage 	Datastore Target	Datastore 192.168.72.42				
To go back and edit any of the	✓ 2d Setup networks	Folder	Yoav Naveh				
deployment details, click the Back	✓ 3 Ready to complete	Disk storage Network mapping	Thin Provision Network 1 to VM Network				
button.		IP allocation	Static - Manual, IPv4				
To finish deploying the vApp, click the Finish button and the vApp will be ready to be powered on.							
		Power on after deployment					
			Back Next	Finish Cancel			