Installing the maxView Storage Manager web-based VI Client Plug-In on VMware ESXi 5.5

These instructions address the installation of the *Adaptec by PMC* plug-in to the VMware **web-based** VI Client. The web-based VI Client requires an installation of the Windows version of VMware's vCenter Server. Please refer to VMware's documentation for the installation of vCenter Server.

There exists a Windows and a Linux version of vCenter Server. The current *Adaptec by PMC* plug-in is for the Windows version of vCenter Server only. The vCenter Server software can be installed on a virtual machine (as depicted below) or on a Windows physical machine (not shown).



This maxView plug-in provides a "**read-only**" monitoring capability in the web-based VI Client. *Adaptec by PMC* controllers appear in the overall monitoring status as shown below in (the German version of) vCenter Server with a degraded RAID-1 and the corresponding warning.

VMWARe vSphere Web Client 🕇 🖉 💛 Administrator@VSPHERE_LOCAL - Hill				
Datencenter Datencenter	192.168.178.86	Aktionen 👻	1	
Datencenter1	Erste Schritte Übers	icht Überwachen Verwalten Verwandte Objekte		
Cluster 0	Probleme Leistung	Ressourcenzuteilung Speicherberichte Aufgaben Ereignisse Hardwarestatus Protokoll-	Browser	
Hosts	CIM-Daten	Sensoren		
🗗 Virtuelle Maschinen 📃 1	Sensoren	Update durchgeführt: Donnerstag, 9. Juli 2015, 19:04:20		
VM-Vorlagen 🗾	Alarme und Warnu	BIOS-Hersteller: American Megatrends Inc., BIOS-Version: 2.0a		
🚼 vApps 📃 0	Systemereignispro	170 Modell: X8DTH-i/6/iF/6F, Seriennummer: 1234567890, Tag: 23.0, Asset Tag: To Be Filled By O.E.M.	D.E.M.	
Datenspeicher 1		A 1 Warnung von 181 Sensoren.		
Datenspeicher-Cluster	Aktualisieren Sensoren zurücksetzen Daten exportieren		er	
😟 Standardnetzwerke 🛛 🚺		Senerr	Status	
Distributed Switches			Normal	
Level Verteilte Portgruppen		Arbeitsspeicher	• Homa	
Hosts		> 📷 PCI		
🚪 192 168 178 86 (▶ 🧕 Netzwerk		
		Akku	Normal	
		▼ I Speicher	🛕 1 Warnung	
		Controller arcController_0 (Adaptec ASR8405)	Normal	
		ESXi5.5U2 Logical Volume 0_0 on controller arcController_0, Drives(- DEGRADED	\Lambda Warnung	
		Drive 0_0_15 on controller arcController_0 Fw: A1CD - UNCONFIGURED GOOD	 Normal 	
		Controller arcController_0 (Adaptec ASR8405)		

When you install the *Adaptec by PMC* maxView plug-in (please refer to Appendix C <u>http://download.adaptec.com/pdfs/user guides/msm v1 08 21375 users guide for das.pdf</u>), you can optionally choose to install the *Adaptec by PMC* arcconf CLI on that same Windows machine. You can then access the controller(s) in the ESXi host with all of the read and write capabilities that you would have with exception of a controller (s) in the exception the controller (s). with arcconf on a stand-alone machine containing the controller(s). Here, having seen the warning above, we open the CLI and investigate further, for example:

Z Administrator: Windows PowerShell		
Command completed successfully. PS C:\Users\Administrator> arcconf ge: Controllers found: 1	tconfig 1 ld	
Logical device information		
Logical device number 0 Logical device name Block Size of member drives RAID level Unique Identifier Status of logical device Additional details Size Parity space Read-cache setting Write-cache status Varie-cache status Partitioned Protected by Hot-Spare Bootable Failed stripes Power settings	: ESX15.5U2 : 512 Bytes : 1 : 0CDDCA2B : Degraded : Initialized with Build/Clear : 2856950 MB : 2856960 MB : Enabled : On : Enabled : On : Yes : No : Yes : No : Jes : No : Disabled : Disabled	
Logical device segment information		
Segment Ø Segment 1	: Present (Controller:1,Enclosure:0,Slot:11) : Missing	PSGKAHIO
Command completed successfully. PS C:\Users\Administrator> _		_

For further information please see

http://download.adaptec.com/pdfs/user_guides/cli_v1_08_21375_users_guide.pdf

Additionally, or exclusively, you can install the full version of maxView Storage Manager on a virtual machine residing on the ESXi host and have read/write capabilities to the controllers in that single ESXi host. Please refer to *maxView Installation Instructions for ESXi 5.5.pdf* included in this download.

The instructions included below are required to install the web-based VI Client. This information overlaps with the instructions for installing a full maxView version on a virtual machine. After completing these steps, please refer to Appendix C of this document in order to install the web-based plug-in.

http://download.adaptec.com/pdfs/user guides/msm v1 08 21375 users guide for das.pdf

Basic Information

The maxView software (vibs and GuestOS Windows/Linux 32b/64b installation files) can be found here <u>http://www.adaptec.com/en-us/speed/raid/storage_manager/msm_vmware_v1_08_21375_zip.php</u>

This procedure requires one or more reboots. If virtual machines are running they should be shut down and the host should be placed in Maintenance Mode before beginning.

SSH on the ESXi host must be enabled - From the ESXi host console, select F2 and enter the root password. Select "Troubleshooting Options", then select "Enable SSH". Hit ESC twice.

Recommended tools are PuTTY, Secure Copy or similar. They are needed to communicate with the ESXi host from a remote system (SSH client). This link might be useful:

http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

Installing the required vibs on the ESXi 5.5 host

1. PuTTY: Connect to the ESXi host through SSH, enter its IP address and port 22. Log in as root.

2. Ensure that the aacraid driver version 1.2.1-41021 or newer is installed on the ESXi host. From the SSH client:

SSHclient# esxcli software vib list | grep aacraid scsi-aacraid 5.5.5.2.1.41021-10EM.550.0.0.1331820 Adaptec_Inc

If that driver vib is installed, proceed to step 4. If an older version is installed, go to step 3.

3. Copy the aacraid vib to the SSH client. Then copy it to the ESXi host using Secure Copy.

For a Linux client:

scp ./vmware-esxi-drivers-scsi-aacraid-550.5.2.1.41021.1.5.5.1331820.x86_64.vib root@<esxihost-ip>:/tmp/

For a Windows client, with pscp.exe and the vib file in the root directory, open a DOS window and change to that root directory. Then:

c:> pscp c:\vmware-esxi-drivers-scsi-aacraid-550.5.2.1.42021.-1.5.5.1331820.x86_64.vibroot@<esxihost-ip>:/tmp/

Next, update the aacraid vib from the SSH client.

SSHclient# esxcli software vib update -v /tmp/vmware-esxi-drivers-scsiaacraid-550.5.2.1.41021.-1.5.5.1331820.x86_64.vib

A reboot of the host is now required.

4. Check to see if previous instances of arcconf and/or arcsmis and/or arc-cim-provider are installed on the host.

```
SSHclient# esxcli software vib list | grep arc

Example:

arcconf 1.08-21375 Adaptec unknown 2015-06-24

arcsmis 1.08-21375 Adaptec unknown 2015-06-24

scsi-arcmsr 1.20.00.19-1vmw.550.0.0.1331820 VMware can be ignored!
```

If arcconf and arcsmis are installed, and they are older than the versions shown above, remove them:

SSHclient# esxcli software vib remove -n arcconf SSHclient# esxcli software vib remove -n arc-cim-provider

5. If the vibs are older than shown above, copy those v1.08 vibs

```
vmware-esx-provider-arcconf.vib
vmware-esx-provider-arc-cim-provider.vib
```

from the SSH client to the /tmp directory of the ESXi host.

c:> pscp c:\vm*.* root@<esxihost-ip>:/tmp/

6. From the SSH client, stop the VMware CIM Agent.and install the arcconf vib immediately afterwards.

SSHclient# /etc/init.d/./sfcbd-watchdog stop

```
SSHclient# esxcli software vib install --no-sig-check -v /tmp/vmware-esx-
provider-arcconf.vib
```

If the host complains about the Acceptance Level of the arcconf vib, reduce the Acceptance Level of the host and then execute the previous command lines again .

SSHclient# esxcli software acceptance set --level=PartnerSupported

7. Install the new arc-cim-provider vib.

SSHclient# esxcli software vib install --no-sig-check -v /tmp/vmware-esxprovider-arc-cim-provider.vib

8. Reboot the host and continue.