HP StorageWorks

HP PolyServe Management Pack

for Microsoft System Center Operations Manager 2007



Part number: T5392-96054 First edition: February 2010

#### Legal and notice information

© Copyright 2007, 2010 Hewlett-Packard Development Company, L.P.

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Microsoft, Windows, Windows XP, and Windows NT are U.S. registered trademarks of Microsoft Corporation.

# Contents

I Management Pack operations	
Contents of the 1.0.2 release	4
Import the Management Pack	4
Configure Operations Manager 2007 for the Management Pack	6
Set the Agent Proxy	7
Configure "Run As" account	8
Monitor HP PolyServe clusters	9
Start the HP PolyServe Management Console	14
Open issues	15

## **1 Management Pack operations**

The HP PolyServe Management Pack integrates with Microsoft System Center Operations Manager 2007. The Management Pack reports state information and any outstanding Alert messages for HP PolyServe objects. The monitored HP PolyServe objects include clusters and the individual servers and monitors within each cluster. HP PolyServe filesystem attributes are also reported but the health of the filesystems is not monitored.

This document describes how to import the Management Pack into Operations Manager 2007 and to perform the necessary configuration to enable the Management Pack to monitor HP PolyServe objects. It also describes the information reported by the Management Pack.

If you need to respond to an Alert message, you can start the HP PolyServe Management Console from Operations Manager 2007, provided that the stand-alone version of the console is installed on an Operations Manager 2007 client.

## Contents of the 1.0.2 release

Version 1.0.2 provides support for Microsoft Windows 2008 and HP PolyServe Matrix Server 4.0.0.

## Import the Management Pack

The HP PolyServe Management Pack is provided in the file PolyServe.MatrixServer.ManagementPack.mp. You will need to import this file into System Center Operations Manager 2007.

To begin, select **Administration** > **Management Packs** on the Operations Manager 2007 console and click **Import Management Packs**.

Next, locate the PolyServe.MatrixServer.ManagementPack.mp file on the "Select Management Packs to import" window and click **Open**.

Select Managem	ent Packs to imp	ort						? ×
i Look jn:	🗁 MP_install		•	G	ø	ø	•	
	PolyServe.Mat	rixServer.Manage	mentPack.mp					
My Recent								
Desktop								
My Documents								
My Computer								
	J						1	
My Network Places	File <u>n</u> ame:					<b>_</b>		Upen
	Files of type:	All Management	Packs) (*.mp; *.xm	0		•		Cancel

When the Import Management Packs window appears, click **Import** to complete the installation.

🛊 Import Management Packs		? ×
Click the "Inzort" button to complete the task. If one of errors on them they won't be imported.	more Management Packs	have
Management Pac <u>k</u> List:	╬Add ≻ <u>R</u> emove	📄 Properties
Name	Version	Sealed
IP PolyServe Matrix Server Management Pack	1.0.2.100	Yes
🌃 Management Pack Details:		
HP PolyServe Matrix Server Management Pack		
The HP PolyServe Matrix Server Management Pack Sealed N been already imported and cannot be overwritten with the s	lanagement Pack version 1 ame version. This will be s	1.0.2.100 has skipped.
, 		
Help	Imp <u>o</u> rt	Cancel
		//

The HP PolyServe Management Pack does not immediately appear in the list of Management Packs on the Operations Manager 2007 console. Click **Refresh** to update the display. This step may take a few minutes.

# Configure Operations Manager 2007 for the Management Pack

To enable the Management Pack to monitor HP PolyServe clusters, you will need to take these steps:

- Set the Agent Proxy for each server in each cluster.
- Assign the appropriate user account for accessing the HP PolyServe clusters.

#### Set the Agent Proxy

The HP PolyServe objects (clusters, servers, monitors, and filesystems) are discovered on the cluster nodes instead of the Operations Manager 2007 server. To enable this discovery method, open the Administration Pane on the Operations Manager 2007 console and select **Agent Managed**.

Locate the entry for a server in the HP PolyServe cluster, right-click, and select **Properties**.



Go to the Security tab on the Agent Properties window and check **Allow this agent** to act as a proxy and discover managed objects on other computers.



You will need to set the Agent Proxy on each server in the cluster.

#### NOTE:

If the discovery does not work within several minutes, restart the OpsMgr Health Service service on the cluster nodes to be monitored.

#### Configure "Run As" account

When accessing an HP PolyServe cluster, the Management Pack must run as an account with rights to read the cluster. The Local System account on each cluster node has read permission and should be adequate for this purpose.

To check the current "Run As" account for the cluster, go to the Administration Pane on the Operations Manager 2007 console, open the **Security** item, and then select **Run As Accounts**.

🔚 System Center Operations Manager 2007 - TOMASSC	DMGROUP						
Eile Edit Yiew Go Actions Tools Help							
Scope 🤍 Search 👻 Scope	Actions						
Administration	Run As Accounts (6)						
🖃 🍄 Administration	Look for:	Find Now Clear					
Tevice Management     Management Servers	Name	Description					
agent Managed	Type: Action Account (2)						
Agentless Managed	Local System Action Account	Built in SYSTEM account to be used as an action account					
Pending Management	TOMASSCOM\scomadmin	This is the user account under which all rules run by default on the agent.					
	Type: Simple Authentication (2)						
	Data Warehouse SQL Server Authenticati	Data Warehouse SQL Server Authentication Account 08/13/2007 17:49:32					
🕺 Run As Accounts	Reporting SDK SQL Server Authentication	Reporting SDK SQL Server Authentication Account 08/13/2007 17:49:37					
Run As Profiles	Type: Windows (2)						
Management Packs     Motifications	Local System Windows Account	Built in SYSTEM account					
A Recipients	Network Service Windows Account	Built in Network service account					
Subscriptions  Groups							
Product Connectors							

If necessary, change the Run As account to an account that has read permission on the cluster.

## Monitor HP PolyServe clusters

The HP PolyServe Management Pack provides several objects that can be monitored on the Operations Manager 2007 console. The objects correspond to cluster hardware components such as servers and networks and to HP PolyServe Software components such as filesystems, virtual hosts, and service and device monitors. The status reported is typically whether the component is up or down.

Object	Description
PolyServe Base Object	Reports status for the entire cluster, including servers, network interfaces, filesystems
PolyServe CIFS Server	Reports status and the active/primary server for each Virtual CIFS Server
PolyServe Cluster	Reports the health of all HP PolyServe clusters
PolyServe Cluster Server	Reports status and information for all servers in the cluster
PolyServe Device Monitor	Reports status for Matrix Server device monitors
PolyServe Device Monitor Base	Reports status for Matrix Server devices monitors and the virtual hosts associated with those device monitors

Description
Reports status for PolyServe filesystems, including mount points/drive letters, filesystem size, and disk usage
A group associated with all PolyServe Managed objects
Reports status for Matrix File Shares
Reports status for Virtual File Share monitors
Reports current state and configuration for all network interfaces
Reports status and the active/primary server for each Matrix Server virtual host
Reports status and the active/primary server for the Virtual MSDTC service
Reports status for all virtual hosts (including Virtual CIFS and SQL Servers) and for service and device monitors
Reports status for Matrix Server service monitors
Reports status and the active/primary server for each Virtual SQL Server
Reports status and the active/primary server for each Virtual Analysis Service

You can create a custom view for any of these objects and select the criteria that you want to monitor in the view. When creating a custom view, search for the HP PolyServe objects on the Select a Target Type window.

Select a Target Type		X
Select the target you want to use from the targets by Management Pack.	n the list below. You can	also use the "Look for." field below to filter down to a specific target or sort
Look for: polyserve		Clear
C View common targets		
View all targets		
	Management Pack	Description
PolyServe Base Object	HP PolyServe Matri	Reports status for the entire cluster, including servers, network interfaces, filesyste
PolyServe CIFS Server	HP PolyServe Matri	Reports status and active/primary server for Virtual CIFS Servers
PolyServe Cluster	HP PolyServe Matri	Reports the health of all PolyServe clusters
PolyServe Cluster Server	HP PolyServe Matri	Reports status and information for all servers in the cluster
PolyServe Device Monitor	HP PolyServe Matri	Reports status for Matrix Server device monitors
PolyServe Device Monitor Base	HP PolyServe Matri	Reports status for Matrix Server device monitors and associated virtual hosts
PolyServe Filesystem	HP PolyServe Matri	Reports status for PolyServe filesystems, such as mount points, filesystem size, ar
PolyServe Managed Objects	HP PolyServe Matri	A group associated with all PolyServe Managed objects
PolyServe Matrix File Share	HP PolyServe Matri	Reports status for Matrix File Shares
PolyServe Matrix Virtual File Share	HP PolyServe Matri	Reports status for Virtual File Share monitors
PolyServe Network Interface	HP PolyServe Matri	Reports current state and configuration for all network interfaces
PolyServe Virtual Host	HP PolyServe Matri	Reports status and the active/primary server for Matrix Server virtual hosts
PolyServe Virtual MSDTC Service	HP PolyServe Matri	Reports status and active/primary server for the Virtual MSDTC service
PolyServe Virtual Service Base	HP PolyServe Matri	Reports status for all virtual hosts (including Virtual LIFS and VSULs) and for servi
PolyServe Virtual Service Monitor	HP PolyServe Matri	Reports status for Matrix Server service monitors
PolyServe Virtual SUL Service	HP PolyServe Matri	Reports status and active/primary server for all Virtual SUL Servers
PolyServe Virtual SSAS Service	HP PolyServe Matri	Reports status and active/primary server for all Virtual Analysis Services
•		<u> </u>
183 total Targets, 17 visible, 1 selecter	ł	
		Help OK Cancel

Select the target to be included in the view and click **OK**.

Next, on the Properties dialog, you can assign a name and description for your custom view and select the criteria to be included in the view.

#### NOTE:

Be sure to select "with specific Cluster" from the Criteria list. Then, on the Cluster pop-up, specify the name of your cluster. This is the name that was specified when the cluster was configured. It also appears on the title bar on the HP PolyServe Management Console.

erties	
<u>m</u> e:	
scription:	
iteria Display	
how data related <u>t</u> o: PolyServe Cluster Server	Show data contained in a specific group:
with a specific health state     is in Maintenance Mode     with specific reserved2     with specific PolyServe Software Version     with specific reserved3     with specific Cluster     with specific Display Name Criteria description (click the underlined value	Cluster     X       Specify the text string to search for.     SQL- style wildcards (%, _) are accepted.       Cluster Name     0K       Cancel     0K
5how all state with <u>specific</u> Cluster	
	OK Cancel

After you have created your custom views for the HP PolyServe Management Pack, you can display them on the Operations Manager 2007 console. The following example of the Monitoring pane shows the HP PolyServe Cluster Management views as well as several PolyServe custom views for Cluster B. Click the view that you want to display.



The HP PolyServe Event View shows all Alert messages for the monitored clusters. The Status Dashboard, shown below, shows state information for the monitored clusters, including individual servers and monitors. It also shows filesystem attributes.

System Center Operations Manager 2007 - SCOM										
Elle Edit Yew Go Actions Iools Help										
Q Search - 🗱 Scope 🔍 Find 🔮 Actions 🛛 🛞										
Monitoring	Cluster Sta	ates (2)				Server S	tates (5)			
E Computers	Q Look for:		F	ind Now Clear	×	Q Look for:			Find Now Clear	
E Discovered Inventory	State	Dirolay Name	A .					1	Polys	ierve
Distributed Applications	A Healthy	Cluster A				State	Display Name	Cluster 🛆 I	PolyServe 🕑 Netw	ork
I ask Status	Quantum	Churchen D							Inter	face
Bright HP PolyServe Cluster Management	Cincatiny	Cascor D				Healthy	cpr3s3.pdxad1	Ouster A p	omes-3.6.1 ONot m	onitored
All Alerts						<ul> <li>Healthy</li> </ul>	cpr3s1.pdxad1	Cluster A p	omes-3.6.1 🔾 Not m	onitored
All Events						Healthy	cpr3s2.pdxad1	Cluster A p	omxis-3.6.1 🔵 Not m	onitored
Status Dashboard     Day Chusters						Healthy	cpr3s5.pd×ad1	Cluster B p	omos-3.6.0 🚫 Not m	onitored
Alert View						Healthy	cpr3s6.pdxad1	Cluster B p	omxis-3.6.0 🔘 Not m	onitored
Eluster States										
Filesystems										
Filesystem Amputes										
Alert View										
Monitored Service States										
E Las Servers										
Alert View										
General States     Microsoft Audit Collection Services										
Microsoft Windows Client										
II 🔄 Network Device	Monitored	Service Sta	tes (10)			Filesyste	m Attribute	<b>S</b> (5)		
Uperations Manager     Definitions	Look for:		E	ind Now <u>C</u> lear	x	Look for:			Find Now Clear	
Dashboard FS1	State	Cluster	A Display Name	Application		Display Name	Cluster	A Label	Total Size	Space Free
🖂 🦢 Cluster B	Healthy	Cluster A	vss-14-1.pdxad			shares	Cluster A	psy2	21.00 Gb	20.97 Gb
Polyserve CIFS Server	Healthy	Cluster A	SPACK SOL200			sel	Cluster A	psv1	24.00.Gb	23.78 Gb
Polyserve Duster	C Hardhar	Charless A	and defet adus			alle drive	Churker R	port .	4.64.65	4.61.75
Polyserve Device Monitor	Qualt	Churton A	10.10.111.75			and draw	Cluster D	partpi	10100	00.00.0
Polyserve FileSystem	() nearny	Cluster b	10.10.114.75	VHOST1		sql_arive	Guster b	psvi	32.49 GD	32.20 GD
Polyserve Matrix File Share	() Healthy	Cluster B	cpr14cifs3	VCIPS		unlabeled	Cluster B	psd4p1	4.64 Gb	4.61 Gb
Polyserve Matrix Virtual File Share	Healthy	Cluster B	SPACK_SQL200	vSQL						
Polyserve Virtual Host	Healthy	Cluster B	vss-14-2.pdxad	VSQL						
Polyserve Virtual MSDTC Service	<ul> <li>Healthy</li> </ul>	Cluster B	10.10.114.76	vhost2						
Polyserve Virtual Service Monitor	Healthy	Cluster B	cifs1							
Polyserve Virtual SQL Service	Healthy	Cluster B	SPACK_CIPS - 1	. vCIFS		1				
Polyserve Alerts						1				
Polyserve Base Objects										
A Polyserve CIFS Server										
Polyserve Eucster Server     Polyserve Ele Sustem										
Polyserve Virtual Host						1				
E im Polyserve Base Objects	Detail View									
Polyserve Base Object	🕅 DoluEom	o Eilocustom prov	portion of charge							
Polyserve Device Monitor Base	News	e mesyscem proj	percies or sitiares							
I i i i i i i i i i i i i i i i i i i i	Path pame		shares							
🗉 🤤 Web Application 👻	Label		psv2							
Show or hide views	Total Size		21.00 Gb							
New view a	Space Free		20.97 Gb							
	Mount Loc recervedo	acion	C:\psfs\s my://okz	nare) 1094d-56h6-4h05-2	588,7h2d37d35308/ctorana/filer.utom/on	0				
Monitoring	Cluster		Cluster A	10940-3000-4008-8	and a first and a first and a first second bar	12				
Authoring										
🔯 Administration										

Alert Views and state information are also available for clusters, servers, and virtual services (monitors) only.

By default, the Management Pack performs discovery every 120 seconds. If you would like to see updates at a different interval, you can change the discovery interval on the Operations Manager 2007 console.

## Start the HP PolyServe Management Console

If the stand-alone HP PolyServe Management Console is installed on a Operations Manager 2007 client, you can start the console from Operations Manager 2007. Select HP PolyServe Tasks from the Task pane on the Operations Manager 2007 console and then click **Run mxconsole**.

#### NOTE:

If the HP PolyServe Management Console does not start, log out of the Windows Server, log in again, and then restart the console. This step adds the path for the Management Console to your system environment path, enabling the console to open properly.

## Open issues

The following open issues affect the Management Pack.

Defect	Description
19347	Multiple duplicate events appear in the event view
	When SCOM picks up an alert, the event view may display multiple duplicate events for the alert, although only one event was logged in the Windows MatrixServer Application Event Log.
	<b>Workaround.</b> Events that appear multiple times in the event view with exactly the same information and timestamps likely indicate only one event. Check the alert views to verify how many alerts are currently open.
26850	Critical server alerts are not cleared
	When a server is fenced, its state is displayed as Critical on the Operations Manager. After the server has been rebooted and the alert has been cleared from the server, the Operations Manager may continue to display the critical alert. <b>Workaround.</b> On the Operations Manager, place the affected node in maintenance mode for five minutes. When the node comes out of maintenance mode, the alert will be cleared.