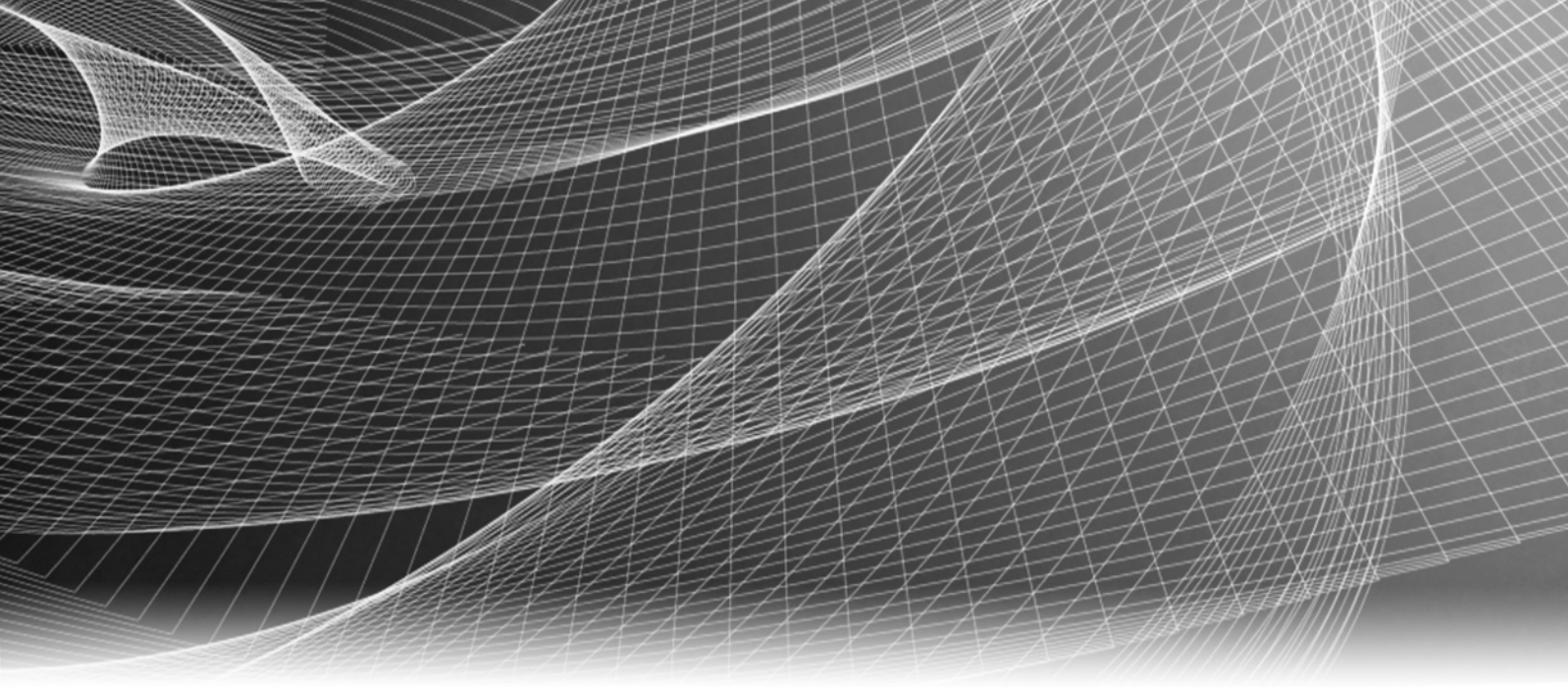

EMC® PowerPath® Management Pack for Microsoft Operations Manager

Version 6.x

User Guide

P/N 302-001-318
REV 01

EMC²

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For the most up-to-date regulatory document for your product line, go to the technical documentation and advisories section on the EMC Online Support website.

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PREFACE

As part of an effort to improve its product lines, EMC periodically releases revisions of its software and hardware. Therefore, some functions described in this document might not be supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information on product features.

Contact your EMC representative if a product does not function properly or does not function as described in this document.

Note: This document was accurate at publication time. New versions of this document might be released on the EMC online support website. Check the EMC online support website to ensure that you are using the latest version of this document.

Purpose

This document describes how to configure and use EMC PowerPath.

Audience

This guide is designed for system administrators who use PowerPath management packs for Microsoft IT management solutions; such as, Operations Manager 2005, Microsoft System Center Operations Manager 2007, or Microsoft System Center 2012 - Operations Manager to monitor PowerPath operations.

Users should be familiar with the configuration and operation of Microsoft Windows and the IT management solution. This guide is for individuals who are experienced with using this software and it is assumed that this level of expertise is available to customers using this guide. EMC recommends further review of the product documentation of the above mentioned products.

Related documentation

Here is the complete set of PowerPath documentation. All manuals are available on the EMC Online Support website:

- *EMC PowerPath Family Product Guide*
- *EMC PowerPath Family CLI and System Messages Reference Guide*
- *EMC PowerPath and PowerPath/VE Family for Microsoft Windows Release Notes*
- *EMC PowerPath Family for Windows Release Notes*
- *EMC PowerPath Migration Enabler User Guide*

If your environment includes EMC Symmetrix storage systems, refer also to the EMC host connectivity guides, which are available on the EMC Online Support website http://support.EMC.com.

If your environment includes EMC VNX and CLARiiON storage systems, refer also to the following manuals:

- EMC host connectivity guides
- VNX Storage-System Support website

- CLARiiON Storage-System Support website

Revision history

The following table presents the revision history of this document.

Table 1 Revision history

Revision	Date	Description
01	December 2014	First release of the EMC PowerPath Management Pack for Microsoft System Center Version 6.0

Conventions used in this document

EMC uses the following conventions for special notices:

⚠CAUTION

CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

Note: A note presents information that is important, but not hazard-related.

IMPORTANT

An important notice contains information essential to software or hardware operation.

Typographical conventions

EMC uses the following type style conventions in this document:

Normal — Used in running (nonprocedural) text for:
- Names of interface elements, such as names of windows, dialog boxes, buttons, fields, and menus
- Names of resources, attributes, pools, Boolean expressions, buttons, DQL statements, keywords, clauses, environment variables, functions, and utilities
- URLs, pathnames, filenames, directory names, computer names, links, groups, service keys, file systems, and notifications

Bold — Used in running (nonprocedural) text for names of commands, daemons, options, programs, processes, services, applications, utilities, kernels, notifications, system calls, and man pages

Used in procedures for:
- Names of interface elements, such as names of windows, dialog boxes, buttons, fields, and menus
- What the user specifically selects, clicks, presses, or types

Italic — Used in all text (including procedures) for:
- Full titles of publications referenced in text
- Emphasis, for example, a new term
- Variables

`Courier`	Used for: • System output, such as an error message or script • URLs, complete paths, filenames, prompts, and syntax when shown outside of running text
`Courier bold`	Used for specific user input, such as commands
`Courier italic`	Used in procedures for: • Variables on the command line • User input variables
< >	Angle brackets enclose parameter or variable values supplied by the user
[ ]	Square brackets enclose optional values
|	Vertical bar indicates alternate selections — the bar means “or”
{ }	Braces enclose content that the user must specify, such as x or y or z
...	Ellipses indicate nonessential information omitted from the example

Where to get help

EMC support, product, and licensing information can be obtained as follows:

Product information — For documentation, release notes, software updates, or information about EMC products, licensing, and service, go to the EMC Online Support website (registration required) at:

`http://support.EMC.com`

Technical support — For technical support, go to EMC online support and select Service Center. On the Support page, you will see several options, including one to create a service request. Note that to open a service request, you must have a valid support agreement. Contact your EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

Your comments

Your suggestions will help us continue to improve the accuracy, organization, and overall quality of the user publications. Send your opinions of this document to:

`techpubcomments@emc.com`

CHAPTER 1
Introduction to the PowerPath Management Pack

This chapter provides overview information about the PowerPath management pack for Operations Manager.

- What is included in the PowerPath management pack package? 10
- What is the PowerPath management pack? 10
- What is the PowerPath SNMP configuration tool? 12

What is included in the PowerPath management pack package?

In order to monitor a PowerPath in a Microsoft System Center Operations Manager environment, the PowerPath management pack package includes the following software tools:

- The PowerPath management pack (an MP or AKM file)
- The PowerPath SNMP configuration tool

What is the PowerPath management pack?

The PowerPath management pack is an MP or AKM file that monitors the installation and operation or PowerPath, and also its paths and volumes on data networks. Using the management pack, Operations Manager can effectively monitor PowerPath by using the triggers, alerts, and SNMP traps.

The management pack defines the services and components of Operations Manager to be monitored, and also consists of rules to remotely monitor the PowerPath events.

Apart from monitoring the PowerPath and the Operations Manager alerts, the management pack also monitors connectivity. When a path or volume is unavailable for a specified period, the management pack receives SNMP traps informing about the disconnection.

The Operations Manager alerts are viewed from the System Center console and the SNMP traps are viewed from an SNMP manager.

Monitoring the PowerPath states

The PowerPath management pack monitors PowerPath paths and volumes, and triggers alerts and SNMP traps based on pre-defined criterion. You can modify this criterion.

The PowerPath management pack addresses the following PowerPath states:

- PowerPath path is dead — If the path does not come back alive within **one minute** (default interval), then an alert and an SNMP trap is generated with the path information.
- PowerPath volume is dead — If the paths to the volume remain dead for more than **five minutes** (default interval), then an alert and an SNMP trap is generated with the volume information.
- PowerPath path latency threshold is exceeded - When path latency monitoring is enabled, PowerPath measures the amount of time each I/O request takes to complete on the selected path. If the latency threshold is exceeded, then an alert and an SNMP trap is generated with the path, volume, and latency information.

Table 2 on page 11 provides a snapshot of the events monitored by the PowerPath management pack and the actions taken on these events.

Table 2 Events and actions

Index	Event name	Event ID	Response criteria	Alert type	SNMP type
1	EMCP_EVENT_MP_PATH_IS_DEAD	100	Path is dead for more than a configurable time period	Warning	Yes
2	EMCP_EVENT_MP_PATH_IS_ALIVE	101	N/A	N/A	N/A
3	EMCP_EVENT_MP_ALL_PATHS_DEAD	104	All paths to a volume are dead for more than a configurable time period	Critical Error	Yes
4	EMCP_EVENT_MP_NOT_ALL_PATHS_DEAD	105	N/A	N/A	N/A
5	EMCP_EVENT_MP_PATH_LATENCY_THRESHOLD	107	When the path latency monitoring is enabled, the amount of time taken for each I/O request has exceeded the limit.	Warning	Yes
6	EMCP_EVENT_NON_PREF_FRAME_TO_PROX_ASB	121	Non preferable frame is in PROX-based autostandby	Warning	Yes
7	EMCP_EVENT_PATH_IS_IOPF_AUTOSTANDBY	124	Path is in IOPF-based autostandby mode for more than a configurable time period	Warning	Yes
8	EMCP_EVENT_PATH_IS_IOPF_ACTIVE	125	N/A	N/A	N/A

What Operations Manager versions does PowerPath management pack support?

The PowerPath management pack is fully qualified to install and operate the Operations Manager versions listed in Table 3 on page 12.

IMPORTANT

There are some known interoperability issues between different versions of MOM. The Microsoft documentation provides more information.

⚠CAUTION

EMC recommends that you do not combine MOM 2005 and System Center Operations Manager (SCOM) 2007/2012 agents on the same client host, as this could result in a conflict of cross talk between the two agents.

Table 3 PowerPath management pack support

Operations Manager version	Supported operating systems with PowerPath management pack
Microsoft Operations Manager 2005	• Windows Server 2003 SP1 or SP2 (32-bit) • Windows Server 2003 SP1 or SP2 (64-bit for IA-64) • Windows Server 2008 R2
System Center Operations Manager 2007, 2007 R2	• Windows Server 2003 SP1 or SP2 (32-bit) • Windows Server 2003 SP1 or SP2 (64-bit for IA-64) • Windows Server 2003 with or without SP2 (64-bit) • Windows Server 2008 (32-bit and 64-bit) • Windows Server 2008 R2 • Windows Server 2012
System Center 2012,2012 R2- Operations Manager	• Windows Server 2003 SP1 or SP2 (32-bit) • Windows Server 2003 SP1 or SP2 (64-bit for IA-64) • Windows Server 2003 with or without SP2 (64-bit) • Windows Server 2008 (32-bit and 64-bit) • Windows Server 2008 R2 and R2 SP1 • Windows Server 2012 • Windows Server 2012 R2 and R2 U1

What is the PowerPath SNMP configuration tool?

The SNMP configuration tool configures the SNMP trap generation for the dead path and volume events of Operations Manager and PowerPath.

The PowerPath SNMP configuration tool deploys the following SNMP binaries on the PowerPath host:

- PPSNMPExtension.dll (SNMP extension agent)
- PPSNMPTrap.exe (SNMP management application)

The configuration file, pp_delay.config, helps you set the interval the management pack waits for the path to MOM becomes active.

PowerPath SNMP traps

A PowerPath SNMP trap is generated when a path or a volume remains dead for more than the pre-defined time period. The PowerPath SNMP traps are generated on the managed PowerPath host. You can forward them to another server (Operations Manager server or any other server) by making the changes to the SNMP service settings.

The PowerPath SNMP traps can be captured and are viewable from a SNMP manager or any SNMP tool, for example the SNMPUTIL tool.

The following example shows a PowerPath SNMP trap informing about a dead path:

```
C:\SNMP>SNMPUTIL.EXE trap
```

```
snmputil: listening for traps...
snmputil: trap eneric=6 specific=1
   from -> 10.31.18.25
Variable = .iso.org.dod.internet.private.enterprises.1139.12.1.1.1
Value = String EMCP_PATH_DEAD
Variable = .iso.org.dod.internet.private.enterprises.1139.12.1.1.22
Value = String PowerPath: Patch Bus 4 Tgt 1 Lun 3 to APM00064502060
```

CHAPTER 2
Installation and Deployment

This chapter describes the installation and deployment processes of the PowerPath management pack, and the process requirements.

- Step 1. Download the PowerPath management pack 16
- Step 2. Install the PowerPath SNMP configuration tool 16
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- Remove the PowerPath management pack 19
- Remove the PowerPath SNMP configuration tool 19

Step 1. Download the PowerPath management pack

1. Go to **EMC Online Support** › **Downloads** › **PowerPath for Windows**.
2. Search for the appropriate PowerPath management pack based on the Operations Manager version that you are using.

Table 4 PowerPath management pack packages

PowerPath Management Packages	Package deliverable
PowerPath Management Pack for Microsoft Operations Manager MOM-2005	EMCPower.MOM2005.MgmtPack.5.3.b310.zip
PowerPath Management Pack for Microsoft Operations Manager SCOM-2007	EMCPower.SCOM2007.MgmtPack.5.3.b310.zip
PowerPath Management Pack for Microsoft Operations Manager SC-2012/2012 R2	EMCPower.SCOM2012.MgmtPack.6.0.bxxx.zip

3. Save the PowerPath management pack locally.

   The package includes the PowerPath management pack (MP or AKM file), the PowerPath SNMP Configuration tool, and this user guide.

Step 2. Install the PowerPath SNMP configuration tool

If you intend to generate SNMP traps when a path or a volume remains dead for more than the pre-defined time period, install the PowerPath SNMP configuration tool on the agent machine where PowerPath is installed.

NOTICE

Before you install the PowerPath SNMP configuration tool, ensure that the Windows SNMP service is installed.

1. Open the PowerPath management pack package that you downloaded and double-click the **PowerPath SNMP Configuration Tool** executable.
2. Click **Next**.
3. Click **Install**.
4. Click **Finish**.

Note: If PowerPath and the SNMP configuration tool are installed in the same windows session, restart the machine after the installation.

Step 3. Import the PowerPath management pack on the server

Before you import the PowerPath management pack

- Ensure that Operations Manager is installed and running on the server dedicated for monitoring.
- Ensure that the required agents are installed and running on the client host.
- Ensure that the PowerPath SNMP configuration tool is installed on the client host.
- Uninstall any previous versions of the PowerPath management pack. A previous installation of PowerPath management pack could result in duplicate event and group entries leading to malfunctioning of the current PowerPath management pack.
- Ensure that the correct PowerPath management pack is selected based on the Operations Manager that you are using.

Import the PowerPath management pack on the server

In Operations Manager, import the PowerPath management pack. The Microsoft documentation provides more information on how to import management packs.

Once the management pack is imported, you can view all the components of the management pack, including the rule groups and computer groups, which help monitor Operations Manager.

Step 4. Deploying the PowerPath management pack

After the PowerPath management pack is installed, deploy the management pack containing all the rules framed for monitoring PowerPath events to the PowerPath agent machines.

Tasks for deploying the management pack are as follows:

- Selecting the Discovery Criteria
- Selecting the Discovery Method
- Selecting an Administrator Account
- Selecting the Computer to be managed
- Selecting an Agent Installation Directory
- Importing the Management Pack

Deploy the management pack for SCOM 2007/2007 R2 or SCOM 2012/2012 R2

1. In the Administration pane, right-click **Device Management,** and select **Discovery Wizard** to view the managed computers.

   The **Device Management** screen describes the process of discovering your network and installing agents on the managed computers.

2. Click **Next**.

3. From the **Discovery Method** screen, select **Automatic computer discovery** or **Advanced discovery**. If Advanced discovery is selected, specify the discovery criteria.
4. Select the Discovery Method by selecting either the **Scan Active Directory** or **Browse for**, or type in computer names options.
5. Click **Next**.
6. From the **Select Objects to Manage** screen, select the computer you want to manage, and click **Next**.
7. In the **Summary** screen, you can change the installation directory of the agent on the managed computer. You can also specify the action account to be used by the agent.
8. Click **Finish**.
9. Select **Agent Managed** in the navigation pane to view the managed computers.
10. Locate and select the management pack to import in the Import Management Pack dialog box.
11. Click **Open**.
12. Click **Import.** The Import Management Packs dialog box shows the imported management pack along with all other imported management packs.
13. Open the Monitoring pane and select **Discovered Inventory** in the Scope pane.
14. Right-click and select **Change target type**
15. Select **EMC PowerPath Host** and click **OK.**

    This step adds members of the target **EMC PowerPath Host** to the Discovered Inventory, and is the first step in discovering your targets for monitoring.

    Note: It may take some time for the members to show up as targets, depending on the query interval set for that target type.

Deploy the management pack for MOM 2005

1. In the Administrator Console, right-click **Computer Discovery Rules** and select **Create Computer Discovery Rule**.
2. Provide the managed computer information on the **Computer Discovery Rule** screen as follows:
   a. In the Management Server field, select the appropriate host name from the drop-down menu.
   b. From the Rule type list, select **Include**.
   c. From the Computer name list, select **equals**.
   d. From the Computer type list, select **Servers and Clients**.
   e. From the Initial Management Mode list, select **Agent-managed**.
   f. Select the **Apply query criteria to domain controllers** option.
3. Click **OK**.

4. Right-click **Computer Discovery Rules**.
5. Select **Run Computer Discovery Now** to run the recently created computer discovery rule. On completion of the running task, the computer is visible in the list of unmanaged computers.
6. In the Administrator Console's left pane, select **Unmanaged Computers** and right-click the selected computer.
7. Select **Install Agent** to install the MOM agent. Follow the instructions on the Install Agent wizard for the agent installation on the monitored computers.
8. Click **Next** to display the Agent Installation Permissions dialog box. Provide administrator account details and the Agent Installation Directory.
9. Click **Next**.
10. Return to the Administrator console to verify agent installation, listed under **Agent-managed computers**.
11. In the Administrator Console, right-click **Management Packs** and select **Import/Export Management Pack** to import the management pack to setup.
12. Click **Next**.
13. Select **Import Management Packs and /or reports** and click **Next**.
14. Browse for the folder containing the PowerPath management pack, select it, and click **Next**.
15. In **Select Management Packs**, select the management pack as the import option.
16. Click **Next**.
17. Click **Finish**.
18. Right-click the PowerPath server or servers to be managed, and click **Run Attribute Discovery Now**.

    Note: The default Attribute Discovery setting for automated discovery is every 60 minutes.

Remove the PowerPath management pack

To delete the imported PowerPath management pack from SCOM server:

1. Go to **Administration** pane on SCOM server.
2. Select **Management Packs**, which will list all imported management packs.
3. Right click **EMCPowerPathManagementPackOpsMgr**, and click **Delete**.

Remove the PowerPath SNMP configuration tool

1. In **Add/Remove Programs** or **Programs and Features**, select **EMC PowerPath SNMP Configuration Tool**.
2. Click **Remove**.

3. When prompted to remove the PowerPath SNMP Configuration Tool, click **Yes**.

CHAPTER 3
Configuring and tuning the PowerPath environment

This chapter provides PowerPath configuration and tuning tips.

- Change the agent temporary storage size for MOM 2005 22
- Change agent simultaneous responses allowed for MOM 2005 22
- Change the SNMP default time period 22

Change the agent temporary storage size for MOM 2005

Sometimes the default setting may be too low for an enterprise PowerPath environment to store all the internal events generated within the MOM agent. Increasing temporary storage on the Agent host achieves a more optimal performance.

1. In the MOM Administrator Console, expand **Administration** › **Computers** › **Agent-managed Computers**.
2. On the **Result** pane, double click the agent where PowerPath is installed.
3. In **Properties** › **Temporary Storage**, increase the Maximum disk space setting from the default of 3,000 KB (3 MB). EMC recommends a setting of 100,000 KB (100 MB).
4. Clear **Use global settings** to effect this change.
5. Click **OK**.
6. Commit the configuration change in MOM by right-clicking the top-level **Management Packs** folder, and then selecting **Commit Configuration Change**.

Change agent simultaneous responses allowed for MOM 2005

The MOM agent simultaneously runs multiple responses. Increasing the number of responses lets the MOM agent to cover all the MOM and PowerPath events.

1. In the MOM Administrator Console, expand **Administration** › **Computers** › **Agent-managed Computers**.
2. On the **Result** pane, double click the agent where PowerPath is installed.
3. In **Properties** › **Responses**, increase the **Simultaneous responses allowed** setting from the default value of 5. EMC recommends the setting of 100.
4. Clear **Use global settings** to effect this change.
5. Click **OK**.
6. Commit the configuration change in MOM by right-clicking the top-level **Management Packs** folder, and then selecting **Commit Configuration Change**.
7. Restart the MOM service on the managed host after it receives the new configuration file from the server.

Change the SNMP default time period

The configurable time period is obtained from the configuration file named pp_delay.config, which is deployed as part of the SNMP configuration tool installation.

A set of registered OIDs (object identifiers) are used for the SNMP traps that are generated for dead paths and volumes. They are:

```
1.3.6.1.4.1.1139.12.1.1.1 - for the Path/Volume label

1.3.6.1.4.1.1139.12.1.1.22 - for the Path/Volume information
```

CHAPTER 4
PowerPath management pack components and operations

This chapter describes the components of the PowerPath management pack and its events.

- PowerPath management pack components for SCOM 2007/2007 R2, SCOM 2012/2012 R2 24
- PowerPath management pack operations for SCOM 2007/2007 R2, SCOM 2012/2012 R2 25
- PowerPath management pack components for MOM 2005 29
- PowerPath management pack operations for MOM 2005 31

PowerPath management pack components for SCOM 2007/2007 R2, SCOM 2012/2012 R2

You can view the various components in SCOM on the Monitoring and Authoring tabs.

The **Authoring** tab contains the following PowerPath management pack components:

- Attributes
- Rules
- Tasks
- Views

Attributes

In the left-hand pane in Figure 1 on page 24, **Attributes** is selected under Management Pack Objects. In the right-hand pane, the selected attribute named **EMC PowerPath** is under the target **EMC PowerPath Host**, as shown at the bottom of the screen.

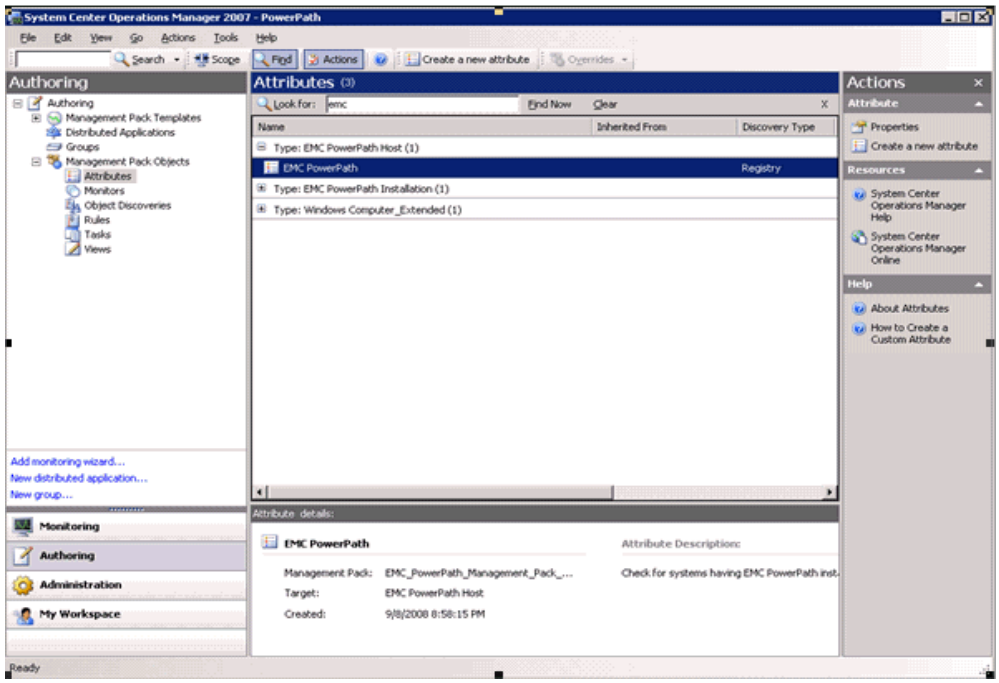

Figure 1 SCOM Authoring tab: Attributes selected

Rules

You can view the PowerPath rules designed to monitor PowerPath events. In Figure 2 on page 25, **Rules** is selected under Management Pack Objects. In the right-hand pane, all the rules displayed are designed to monitor and track PowerPath dead paths/volumes on PowerPath server(s) that the SCOM server manages.

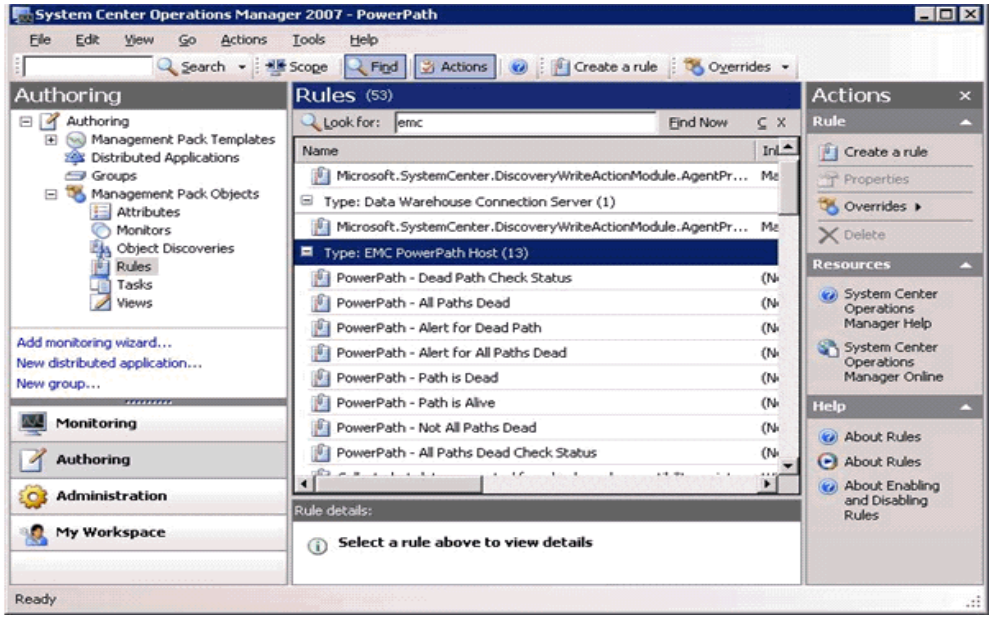

Figure 2 SCOM Authoring tab: Rules selected

Tasks

The PowerPath tasks are also viewable in SCOM under Management Pack Objects in the left-hand pane. Under EMC PowerPath Hosts in the right-hand pane, you can retrieve version and license capabilities of the managed PowerPath server.

Views

The PowerPath views are also viewable in SCOM under Management Pack Objects in the left-hand pane. The PowerPath views are designed to show the following:

- PowerPath servers that are managed by the SCOM server.
- Generated PowerPath alerts.
- Status of PowerPath tasks run by the administrator.

PowerPath management pack operations for SCOM 2007/2007 R2, SCOM 2012/2012 R2

You can monitor the operations of the pack in SCOM on the Monitoring tab.

In the **Monitoring** tab, a folder named **EMC** contains the following PowerPath management pack components: EMC PowerPath Alerts, EMC PowerPath Computers, and EMC PowerPath Task Status.

Alerts

In the left-hand pane under **EMC**, select **EMC PowerPath Alerts** to view the generated alerts in the right-hand pane. When you select one of the alerts, you can view the alert details at the bottom of the screen.

In Figure 3 on page 26, the alert details for the selected alert shows a path that remains dead for more than the pre-defined time period. The **Alert Description** section shows information on the dead path.

The pre-defined time period refers to the value in the pp_delay.config file. The first field in this file specifies the interval that is allowed for a dead path to become alive. The second field specifies the interval that is allowed for a dead volume to make at least one path alive.

You can also view alerts that are generated when a volume remains dead for more than the pre-defined time period. The **Alert Description** section shows information about the dead volume.

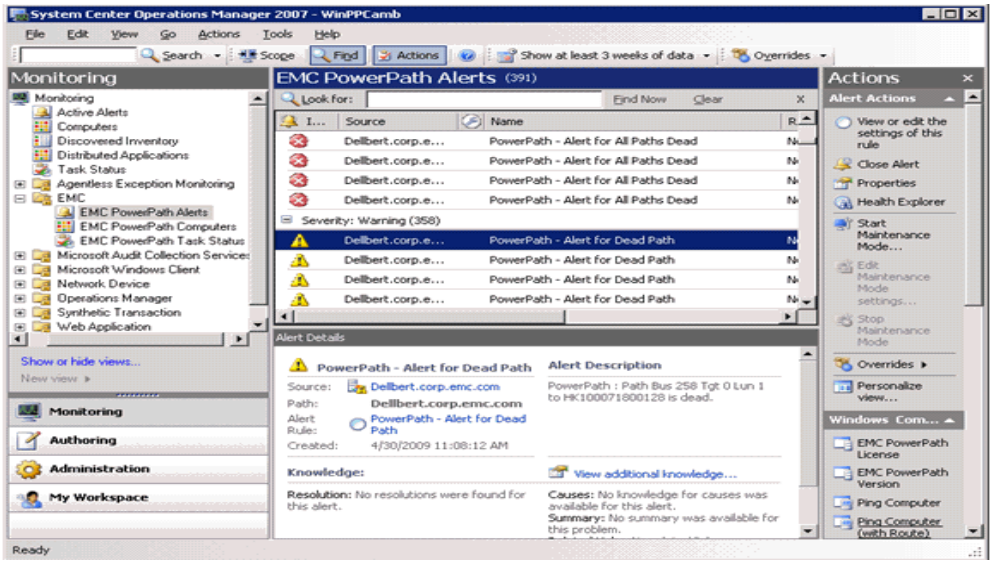

Figure 3 SCOM Monitoring tab: EMC PowerPath Alerts selected

Computers

In the left-hand pane under **EMC**, select **EMC PowerPath Computers** (client hosts with PowerPath installed) to view the PowerPath servers that the SCOM server manages, as shown in Figure 4 on page 27.

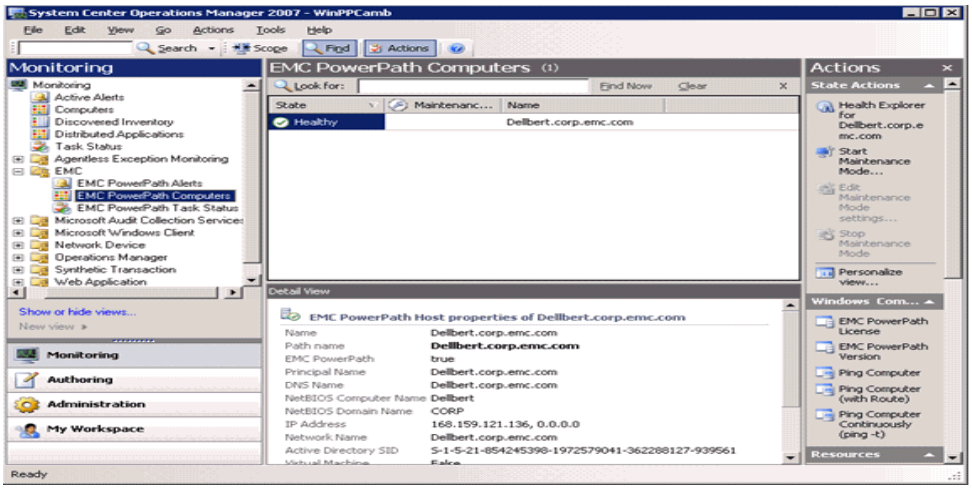

Figure 4 SCOM Monitoring tab: EMC PowerPath Computers selected

Task Status

In the left-hand pane under **EMC**, select **EMC PowerPath Task Status**. The screen displays the status of the PowerPath tasks that have been run in the past.

License task

You can retrieve licensing information for the PowerPath licenses installed on the managed host.

1. At the Operator console select the **Computers view** from the navigation pane as shown in Figure 5 on page 28.
2. Select **PowerPath host**.
3. Click **PowerPath License task** in the task pane.
4. Click **Run**.
5. View the contents of the EMC PowerPath Task Status.

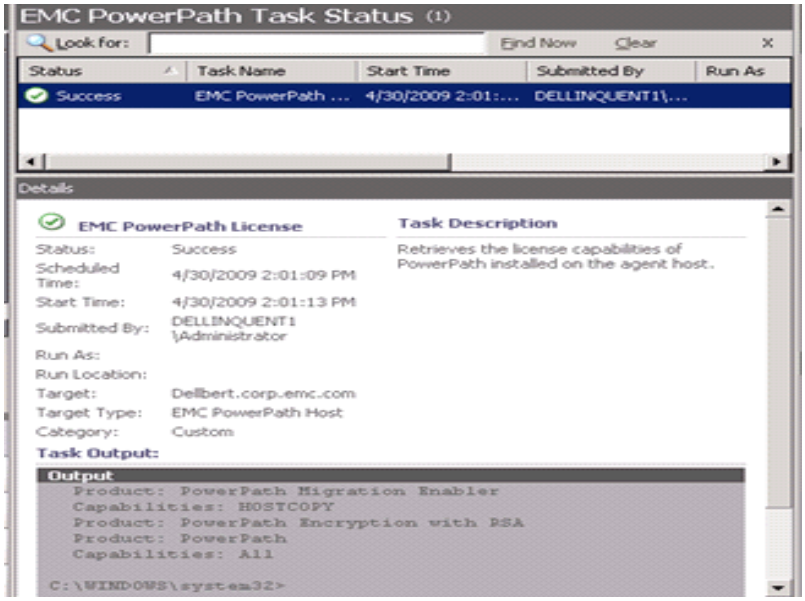

Figure 5 PowerPath License Task for SCOM

Version task

You can retrieve versioning information of PowerPath that is installed on the managed host.

1. At the Operator console, select the **EMC PowerPath Computers** from the navigation pane.
2. Select **PowerPath host**.
3. Click **EMC PowerPath Version** in the task pane.
4. Click **Run**.
5. View the contents of the EMC PowerPath Task Status as shown in Figure 6 on page 29.

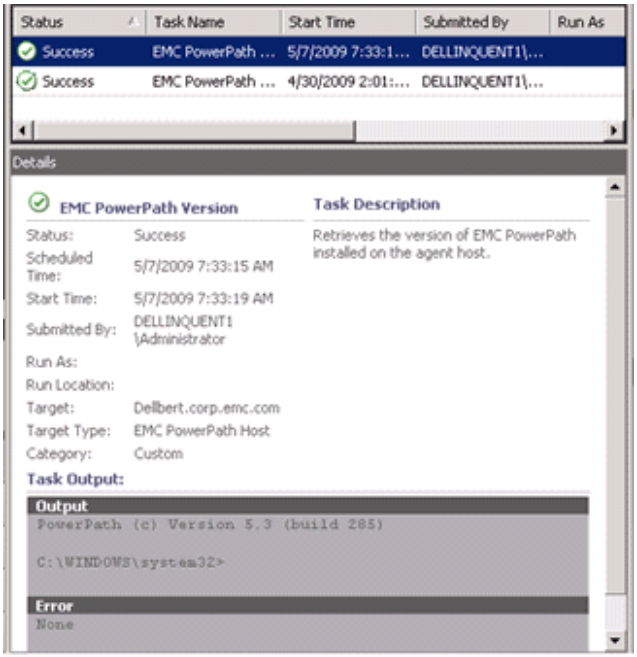

Figure 6 PowerPath Version Task for SCOM

PowerPath management pack components for MOM 2005

You can view the following components in Microsoft Operations Manager (MOM) 2005 on the MOM Administrator Console: Computer Groups, Rule Groups, Computer Attributes

Computer Groups

In the Administrator Console's left-hand pane, select **Computer Groups,** under **Management Packs.** Then select a new computer group named **EMC PowerPath** as shown in Figure 7 on page 30.

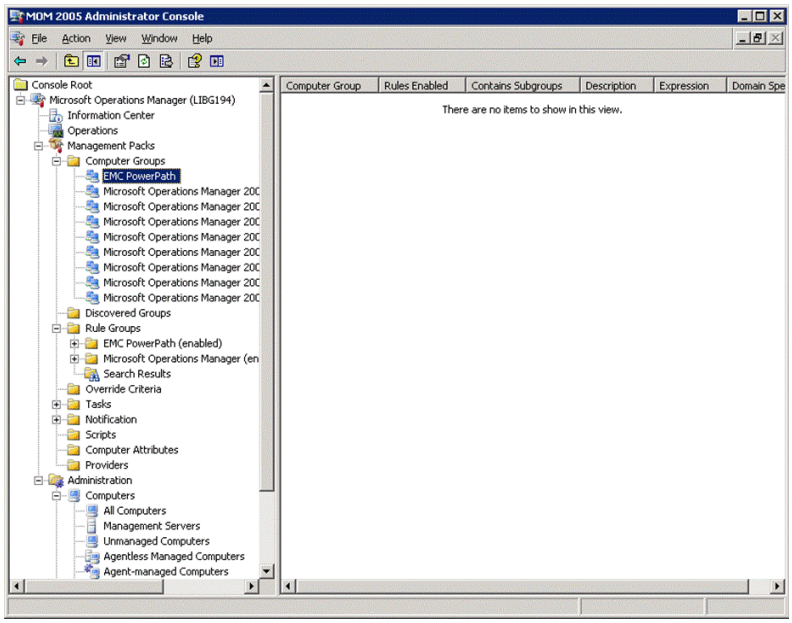

Figure 7 MOM Administrator Console: Computer Groups

Rule Groups

In the Administrator Console left-hand pane, select **Rule Groups,** under **Management Packs.** Then select the new rule group called **EMC PowerPath.** The following information is displayed as shown in Figure 8 on page 30.

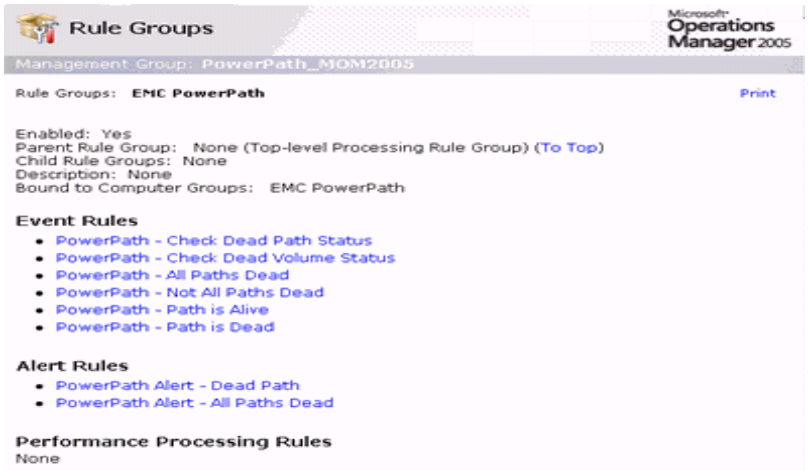

Figure 8 MOM Administrator Console: Rule Groups

Computer Attributes

In the Administrator Console's left-hand pane under **Management Packs,** select **Computer Attributes.** Then select a computer attribute called **EMC PowerPath.** This computer attribute is used by the EMC PowerPath computer group to identify which servers have PowerPath installed on them. The list of these servers is located in the Administrator Console's right-hand pane as shown in Figure 9 on page 31.

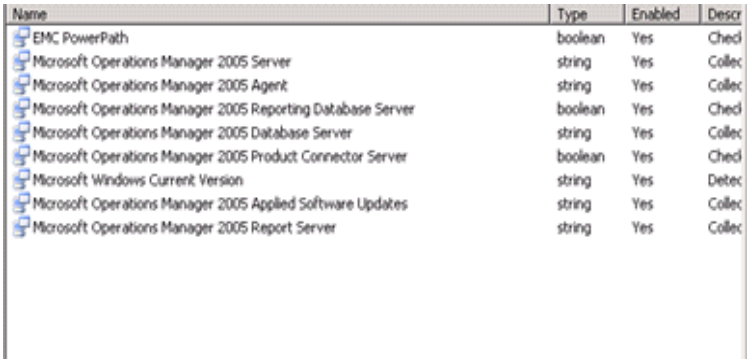

Figure 9 MOM Administrator Console: Computer Attributes

PowerPath management pack operations for MOM 2005

Invoke the PowerPath MOM operator console on your desktop as follows:

Start › Programs › Microsoft Operations Manager 2005 › Operator Console

Under **Public Views**, locate a folder named **EMC** that contains three PowerPath views as follows: EMC PowerPath Alerts, EMC PowerPath Computers, EMC PowerPath Task Status

Alerts

A PowerPath alert is generated when a path remains dead for more than the pre-defined time period. The **Alert Details** section shows information on the dead path.

A PowerPath alert is also generated when a volume remains dead for more than the pre-defined time period, and is shown on the **Alert Details** section.

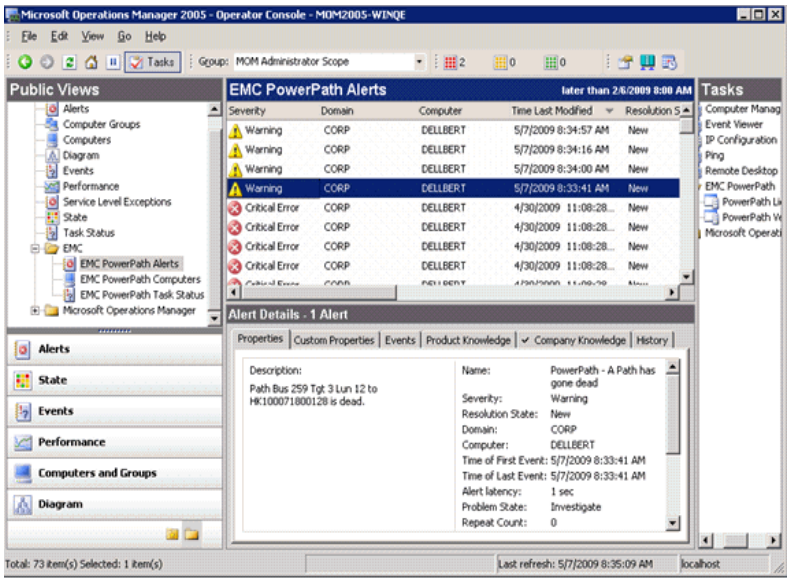

Figure 10 MOM Operator Console: PowerPath Alerts

Computers

In the MOM Operator Console, select **EMC PowerPath Computers** under **EMC** to view the PowerPath servers that the MOM server manages.

Tasks

In the MOM Operator Console, select **EMC PowerPath Task Status** under **EMC** to view the PowerPath tasks that have been run, as shown in Figure 11 on page 32.

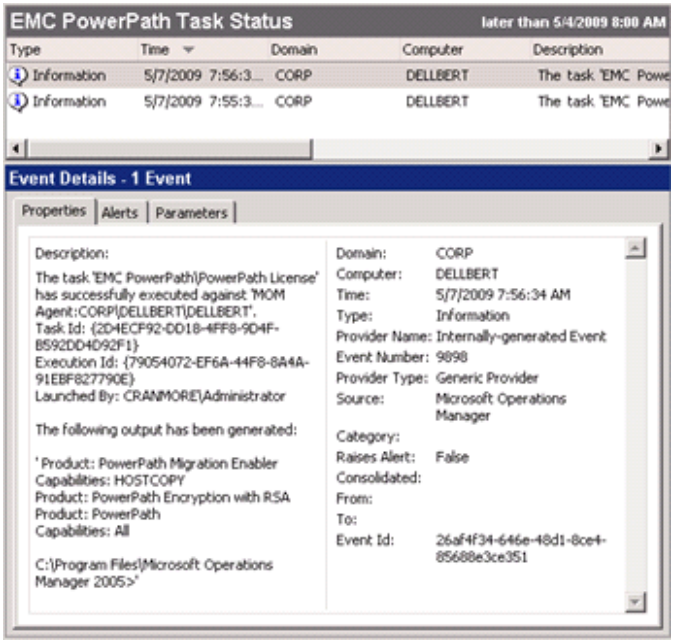

Figure 11 MOM Operator Console: PowerPath Task Status

License task

You can retrieve licensing information for the PowerPath licenses installed on the managed host.

1. Select one of the computer instances in the result pane, and click the **PowerPath License task** in the task pane.
2. Click **Next**. The Command Line Task Parameters screen appears.
3. Click **Next**. This step shows the selected agent host on which the task is run.
4. Click **Next**.
5. Click **Finish**.
6. At the Operator Console, select **EMC PowerPath Task Status** under **EMC**.

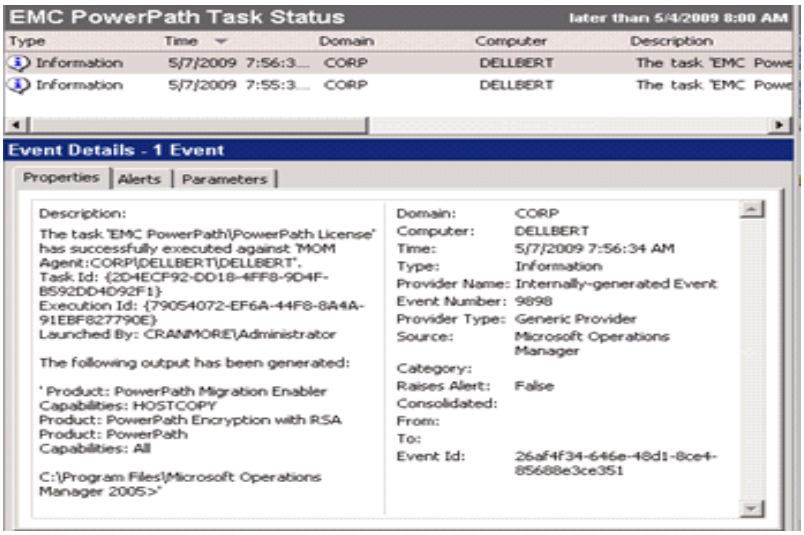

Figure 12 PowerPath License Task for MOM

Version task

You can retrieve versioning information of PowerPath that is installed on the managed host.

1. Select one of the computer instances in the result pane and click the **PowerPath Version task** in the task pane.
2. Click **Next**. The command line task parameters screen appears.
3. Click **Next** to view the selected agent host on which the task is running.
4. Click **Next**.
5. Click **Finish**.
6. In the navigation pane, select **Public Views** and then select **Task Status**.

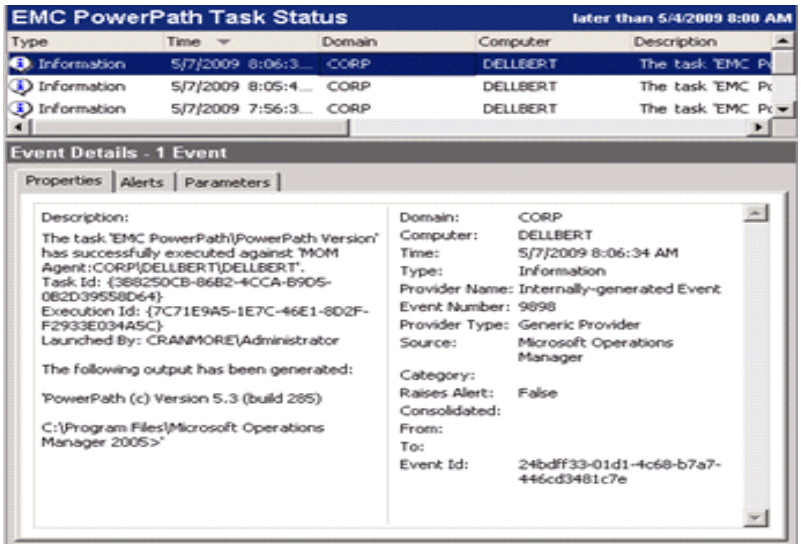

Figure 13 PowerPath Version Task for MOM