HP Operations Orchestration Software

Software Version: 7.51

HP Operations Manager Integration Guide

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Finding or updating documentation on the Web

Documentation enhancements are a continual project at Hewlett-Packard Software. You can obtain or update the HP OO documentation set and tutorials at any time from the HP Software Product Manuals web site. You will need an HP Passport to log in to the web site.

To obtain HP OO documentation and tutorials

1. Go to the HP Software Product Manuals web site
   (*http://support.openview.hp.com/selfsolve/manuals*).
2. Log in with your HP Passport user name and password.

   OR

   If you do not have an HP Passport, click **New users – please register** to create an HP Passport, then return to this page and log in.

   If you need help getting an HP Passport, see your HP OO contact.
3. In the **Product** list box, scroll down to and select **Operations Orchestration**.
4. In the **Product Version** list, click the version of the manuals that you're interested in.
5. In the **Operating System** list, click the relevant operating system.
6. Click the **Search** button.
7. In the **Results** list, click the link for the file that you want.

Where to find Help, tutorials, and more

The HP Operations Orchestration software (HP OO) documentation set is made up of the following:

- Help for Central

  Central Help provides information to the following:

  - Finding and running flows
  - For HP OO administrators, configuring the functioning of HP OO
  - Generating and viewing the information available from the outcomes of flow runs

  The Central Help system is also available as a PDF document in the HP OO home directory, in the \Central\docs subdirectory.

- Help for Studio

  Studio Help instructs flow authors at varying levels of programming ability.

  The Studio Help system is also available as a PDF document in the HP OO home directory, in the \Studio\docs subdirectory.

- Animated tutorials for Central and Studio

  HP OO tutorials can each be completed in less than half an hour and provide basic instruction on the following:

  - In Central, finding, running, and viewing information from flows
  - In Studio, modifying flows

  The tutorials are available in the Central and Studio subdirectories of the HP OO home directory.

- Self-documentation for operations and flows in the Accelerator Packs and ITIL folders

  Self-documentation is available in the descriptions of the operations and steps that are included in the flows.

Support

For support information, including patches, troubleshooting aids, support contract management, product manuals and more, visit the following site: *http://www.hp.com/go/bsaessentialsnetwork*

This is the **BSA Essentials Network** Web page. To sign in:

1. Click **Login Now**.
2. On the **HP Passport sign-in** page, enter your HP Passport user ID and password and then click **Sign-in**.
3. If you do not already have an HP Passport account, do the following:
   a. On the **HP Passport sign-in** page, click **New user registration**.
   b. On the **HP Passport new user registration** page, enter the required information and then click **Continue**.
   c. On the confirmation page that opens, check your information and then click **Register**.
   d. On the **Terms of Service** page, read the Terms of use and legal restrictions, select the **Agree** button, and then click **Submit**.
4. On the **BSA Essentials Network** page, click **Operations Orchestration Community.**

   The Operations Orchestration Community page contains links to announcements, discussions, downloads, documentation, help, and support.

Note: Contact your OO contact if you have any difficulties with this process.

Table of Contents

Overview

This guide walks you through integrating HP OO with HP Operations Manager (formerly HP OpenView) for Windows. The intended use of this guide is assist you with associating HP Operations Manager Policies with HP OO flows in either an automated or semi-automated manner.

You will learn how to execute a flow automatically when an HP Operations Manager alert is generated.

Prerequisites

The following software should be installed prior to integration:

- HP OpenView 7.5; HP Operations Manager 8.0
- HP OO 7.51 Central, RAS, and Studio
- RSFlowInvoke.exe (installed on the same machine as HP Operations Manager)

You should use RSFlowInvoke.exe to generate an encrypted password for flows executed within HP Operations Manager.

To generate an encrypted password

1. From where RSFlowInvoke.exe is installed, open a Windows command shell.
2. Change the directory to the location of RSFlowInvoke.exe (%OO_HOME%\Central\tools).
3. Run the following command:
   RSFlowInvoke.exe –cp
4. Enter the password for a valid HP OO user.
5. Re-enter the password for a valid HP OO user.
6. An encrypted password is generated. Copy this password for use with the integration.

OO Library operations that communicate with Operations Manager

There are a number of OO operations that can be used in flows to communicate with Operations Manager. Documentation for each of these operations is included on the **Description** tab of the operation in OO Studio.

These operations can be found in the \Library\Integrations\Hewlett-Packard\Operations Manager Windows\ folder.

How to automatically invoke a flow from a Policy

This example illustrates how an OO flow can be invoked automatically by an HP Operations Manager Policy when the Policy is breached.

To automatically invoke a flow from a Policy

1. Create an HP Operations Manager Policy (see "Quick start: how to create a policy" in the *HP OpenView Operations Guide*).
2. From the HP Operations Manager console, navigate to the Policy Manager.
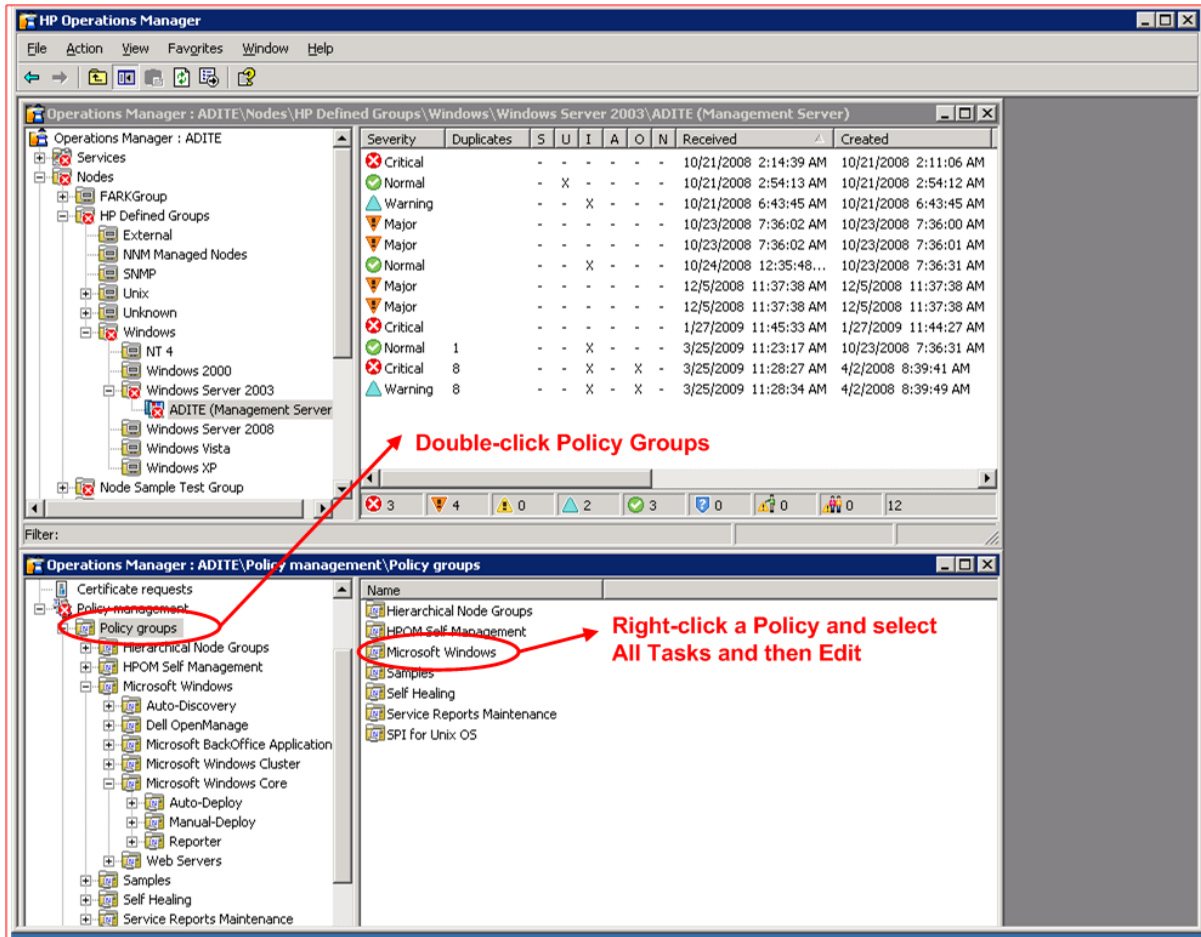3. Right-click the desired Policy, click **All Tasks** and then click **Edit**.

Figure 1 – HP Operations Manager Console and Policy Manager (Automatic Command)

4. This window that opens displays basic information about the Policy and enables modifications to the Policy. Click the **Rules tab**, select the rule you want modify, and then click the **Modify** button.
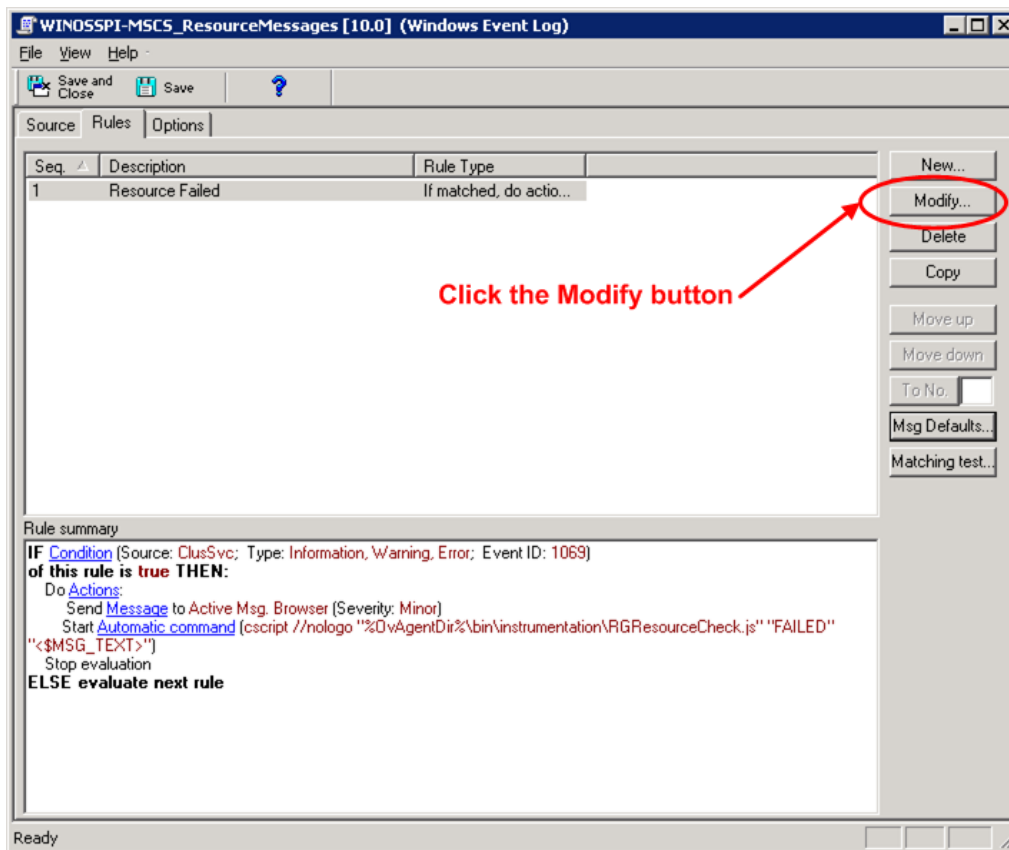
Figure 2 - Click the Modify button

The **Rule** window opens.

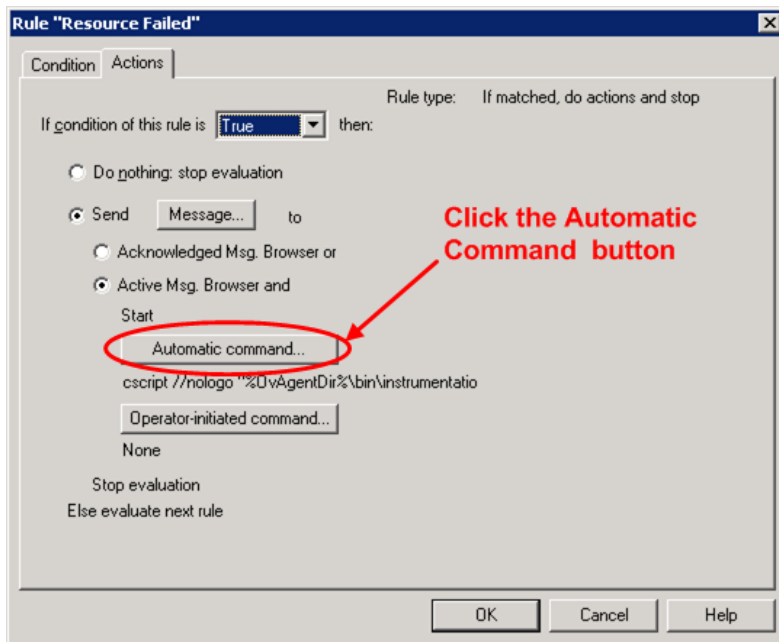5. Click the **Action** tab, and then click the **Automatic command** button.

Figure 3 – Rule window and Automatic Command button

The **Automatic Command** window opens.

6. In the **Automatic Command** window, in the **Command** box enter the full path to RSFlowInvoke command including the authentication parameters and full OO Library path (see Appendix A: "RSFlowInvoke.exe usage"). Click **OK** when finished and return to the Policy Manager.
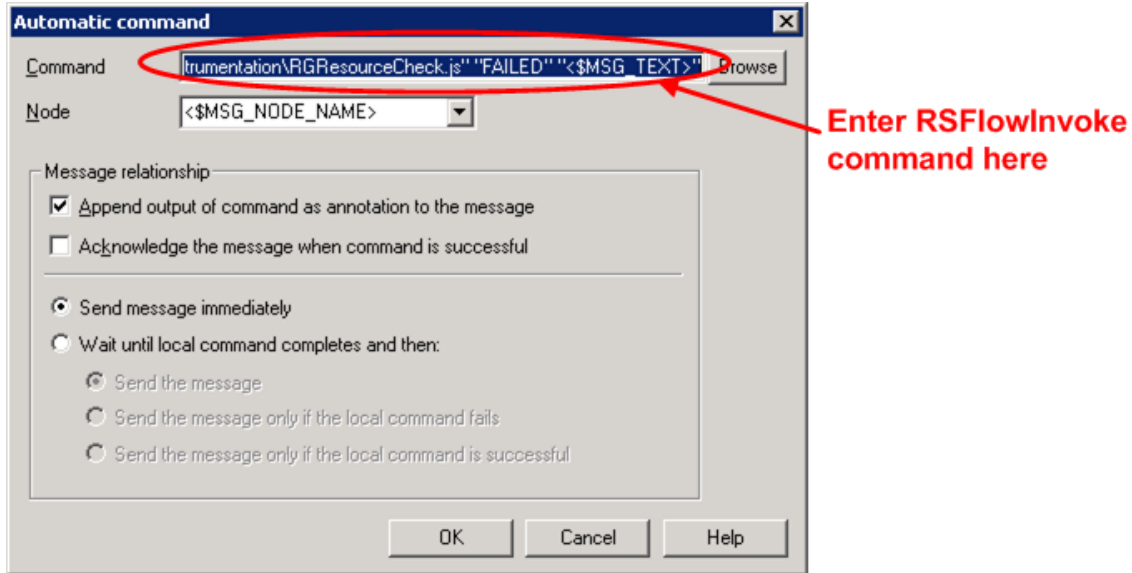

Figure 4 - Automatic command Window

7. To deploy the new Policy updates, in the Policy Manager right-click the Policy, click **All Tasks** and then click **Deploy on**.
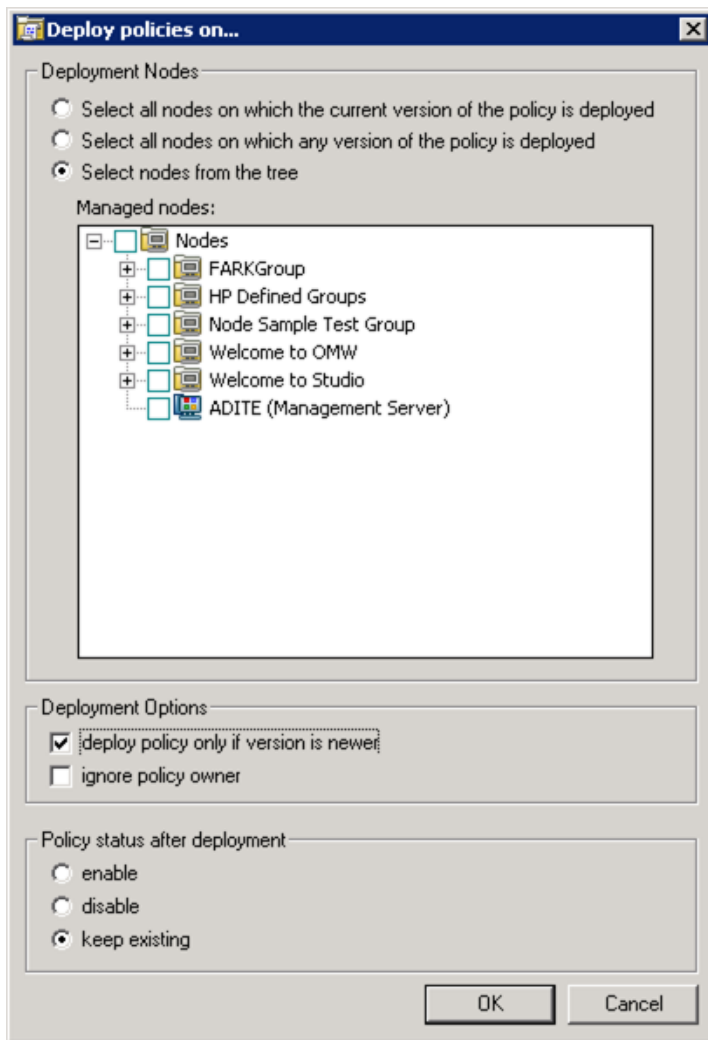
   The **Deploy policies on** window opens.

Figure 5 - Deploy policies on window

8. In the **Deploy policies on** window, select the **Select nodes from the tree** option button, do one of the following, and then click **OK**:

   1. Select the **Nodes** check box in the **Nodes** tree to deploy the Policy on all nodes.
   2. Select individual nodes to on which to deploy the Policy.

The Policy has now been updated and deployed. The next time an alert is triggered, the Automatic Command for the Policy will automatically invoke the OO flow using RSFlowInvoke.exe.

How to "Operator Initiate" an OO flow from a Policy

This example illustrates how when an HP Operations Manager Policy is breached, an alert is issued so that the operator can initiate an OO flow.

To operator–initiate a flow from a Policy

9. Create an HP Operations Manager Policy (see "Quick start: how to create a policy" in the *HP Operations Manager Operations Guide*).
10. From the HP Operations Manager console, navigate to the Policy Manager.

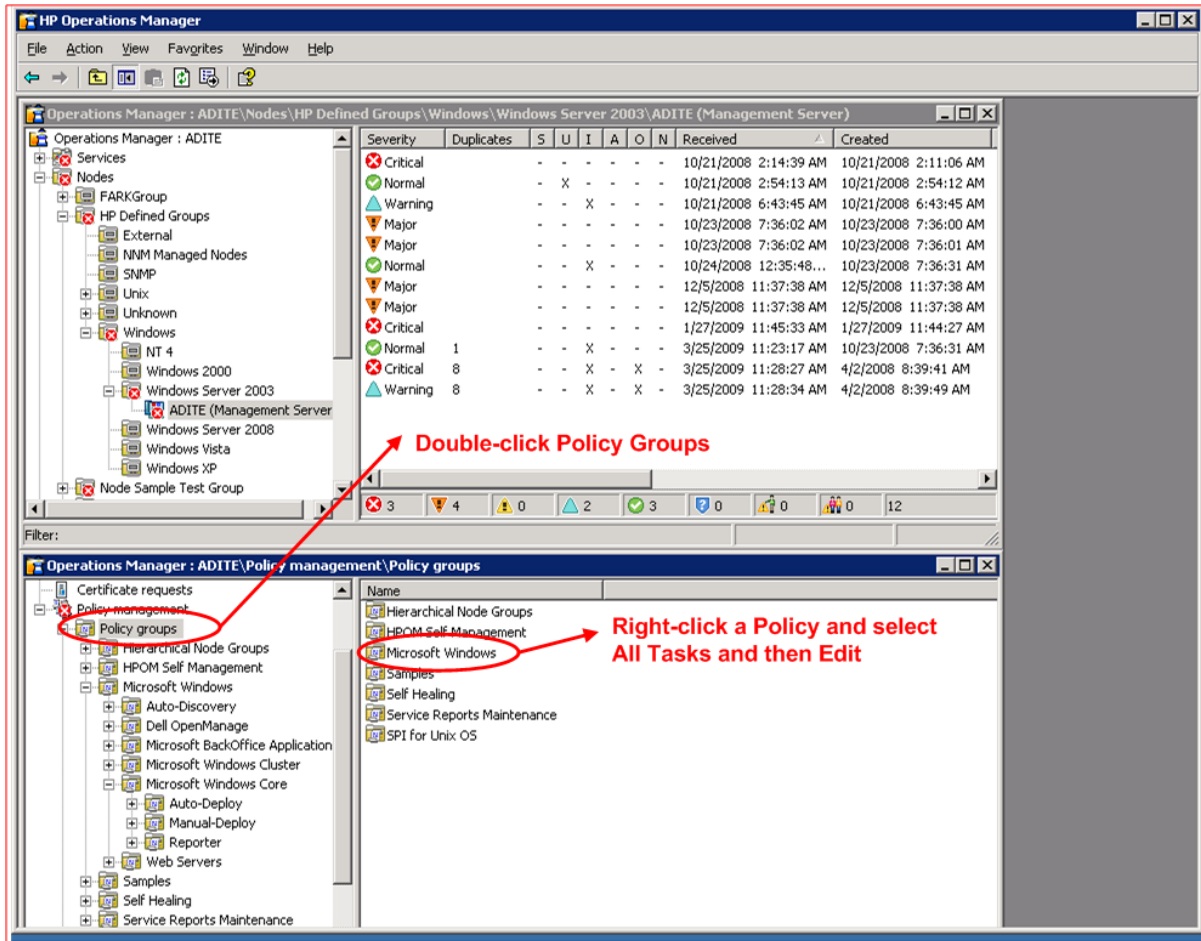11. Right-click the desired Policy, click **All Tasks** and then click **Edit**.

Figure 6 - HP Operations Manager Console and Policy Manager (Operator Initiated)

12. This window that opens displays basic information about the Policy and enables modifications to the Policy. Click the **Rules tab**, select the rule you want modify, and then click the **Modify** button.
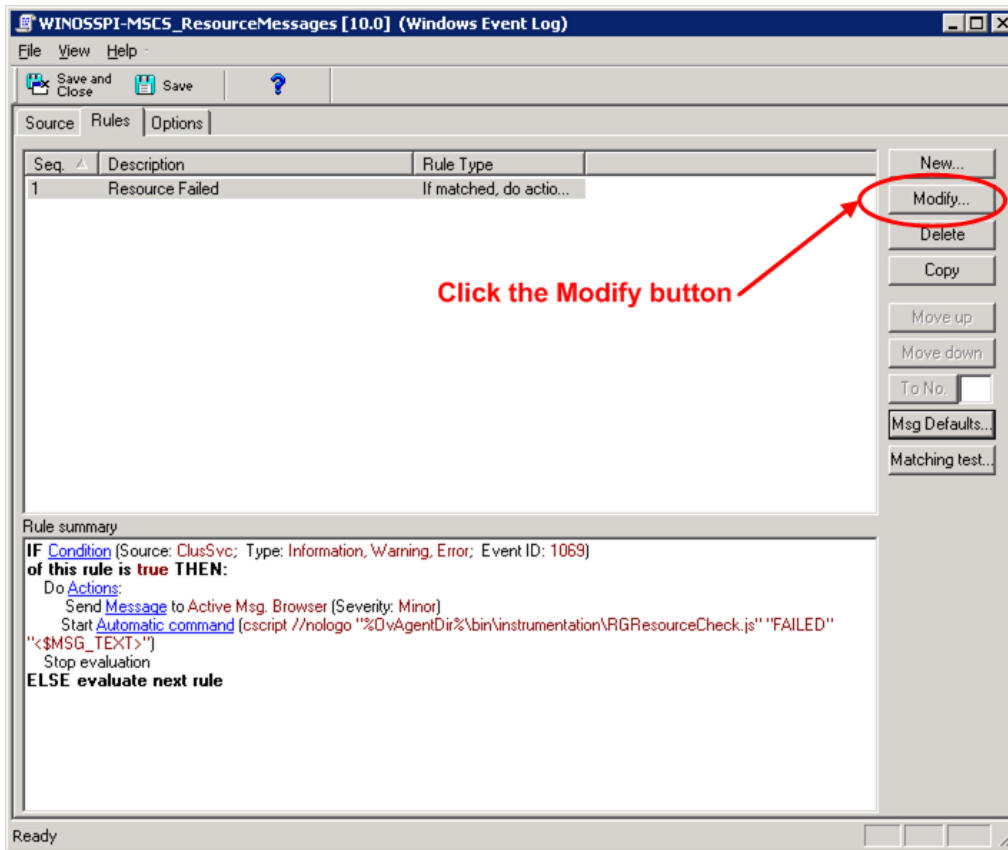
Figure 7 — Click the Modify button

The **Rule** window opens.

13. Click the **Action** tab, and then click the **Operator-initiated command** button.
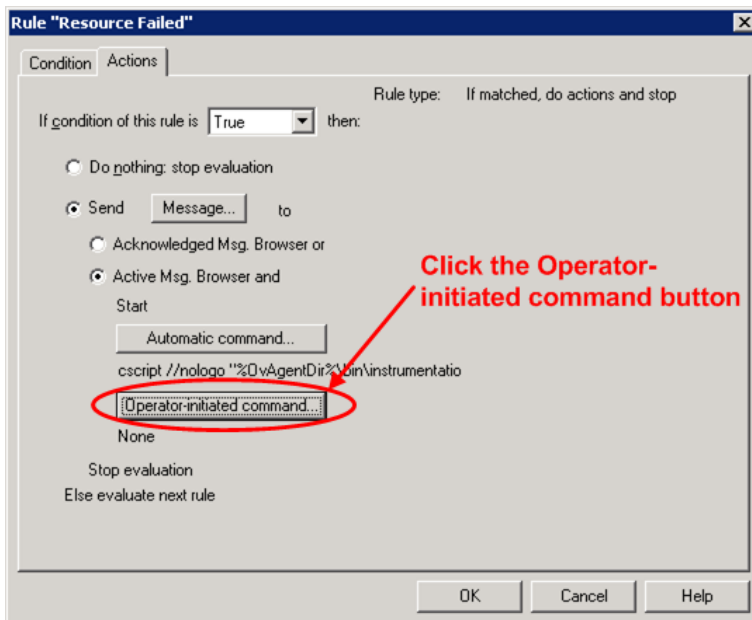

Figure 8 — Rule window and Operator-initiated command button

14. In the **Operator-initiated Command** window, in the **Command** box enter the full path to RSFlowInvoke command including the authentication parameters and full OO Library path (see

Appendix A: "RSFlowInvoke.exe usage"). Click **OK** when finished and return to the Policy Manager.
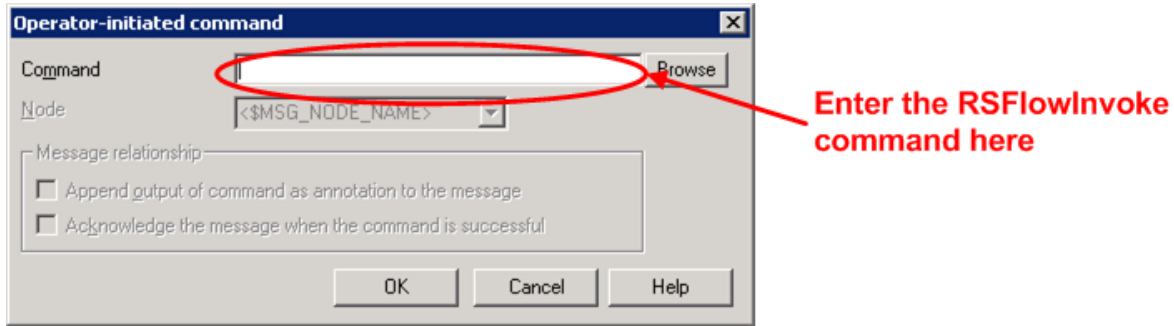

Figure 6 - Operator-initiated command window

15. To deploy the new Policy updates, in the Policy Manager right-click the Policy, click **All Tasks** and then click **Deploy on**.

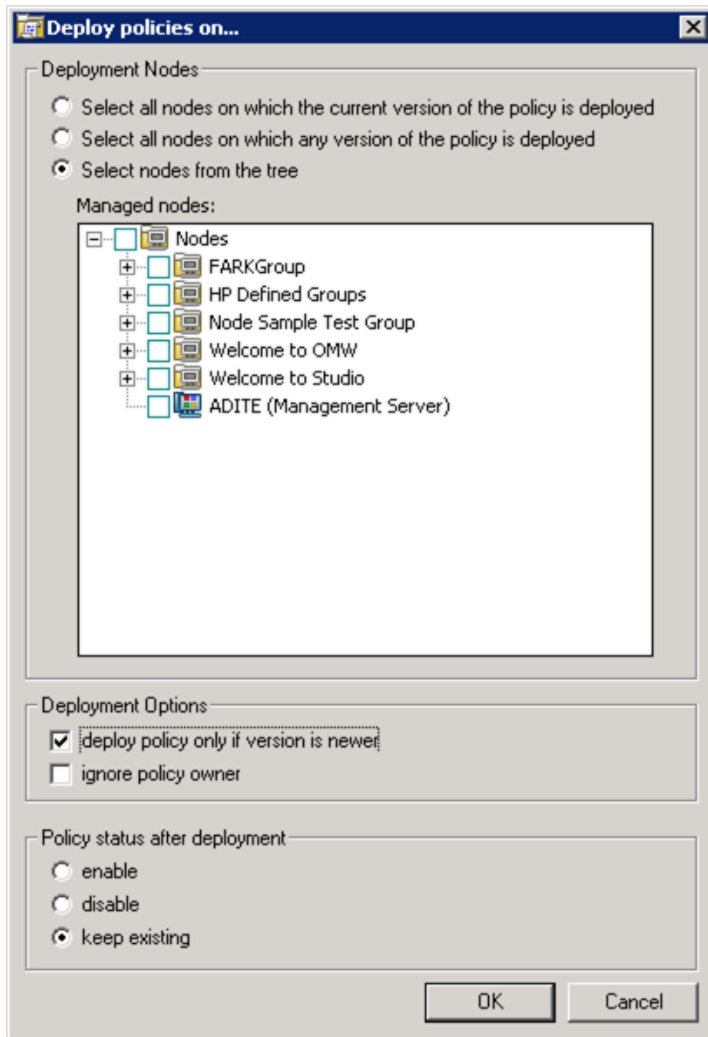   The **Deploy policies on** window opens.

Figure 7 - Deploy policies on window

16. In the **Deploy policies on** window, select the **Select nodes from the tree** option button, do one of the following, and then click **OK**:

1. Select the **Nodes** check box in the **Nodes** tree to deploy the Policy on all nodes.
2. Select individual nodes to on which to deploy the Policy.

The Policy has now been updated and deployed. The next time an alert is triggered, the Automatic Command for the Policy will automatically invoke the OO flow using RSFlowInvoke.exe. The next time the Policy is breached, an alert will display in the **Active Message Window**.
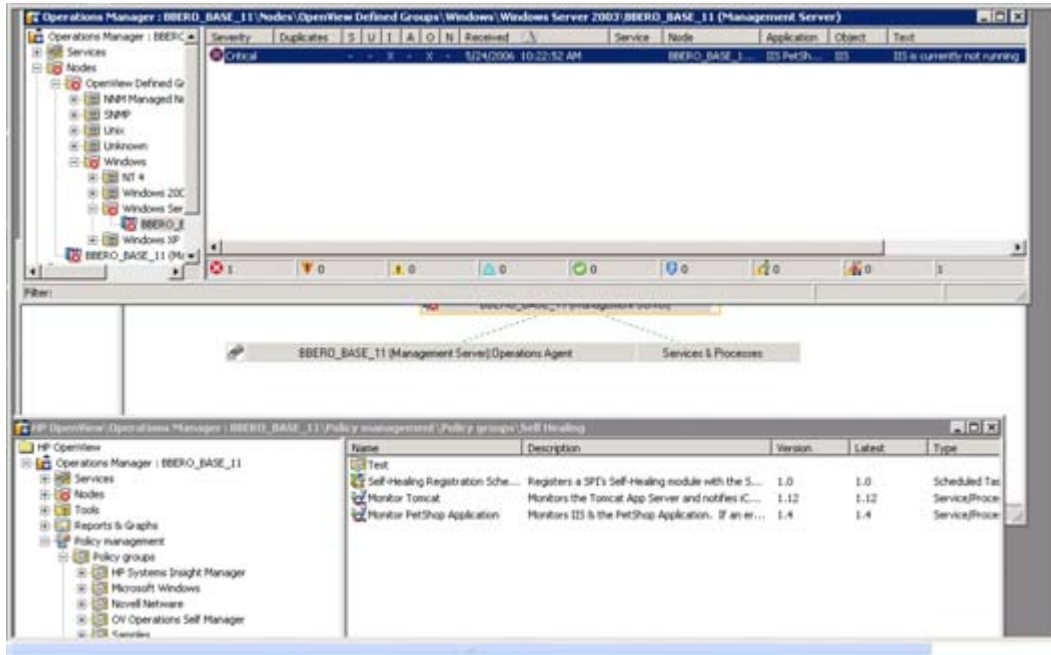

Figure 8 - Active alert (Operator-initiated)

17. Right-click the alert, click **Commands** then **Start** and then **Operator Initiated**. This invokes the OO flow using RSFlowInvoke.exe.

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Appendix A: RSFlowInvoke.exe usage

Syntax

```
RSFlowInvoke.exe –u <username> -ep <encrypted password> OR –p <password>
“https://<HP OO server:port>/PAS/services/rest/run/<full library path for OO flow>”
```

Example

```
"C:\Program Files\Hewlett-Packard\Operations
Orchestration\Central\tools\RSFlowInvoke.exe" -u rsadmin -ep
jYa+lSbnEiM9fiUpksY8iw== "https://localhost:8443/PAS/services/rest/run/Library/OVO
Driven Repairs/Repair Tomcat With Remedy"
```