HP Operations Manager Dependency Mapping Automation

For Windows® and UNIX® Operating Systems

Software Version: 8.00

Getting Started Guide

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Getting Started

Introducing HPOM DMA

HP Operations Manager Dependency Mapping Automation (HPOM DMA) enables IT operations teams to align their activities more fully with the business services that the IT infrastructure supports. By providing automated dependency mapping and configuration consistency across multiple HP Operations Manager (HPOM) servers, HPOM DMA optimizes the ability of IT organizations to support their businesses and enables enhanced productivity and efficiency within the IT operations teams.

HPOM DMA helps you to:

- Automate and simplify the creation and maintenance of business service views within HPOM to enable business-focused impact and root cause analysis for operational incidents.
- Streamline incident analysis activities by providing drill down from managed nodes or services in HPOM into their change history within the HP Universal CMDB (UCMDB).
- Consolidate systems and managed services information in a single place, the UCMDB, to provide shared and consistent views across multiple HPOM servers.
- Rationalize the process of identifying new servers and applications, and the deploying of appropriate HPOM monitoring to the business-critical infrastructure.

For a full run down of the HPOM DMA concepts, refer to the *HP Operations Manager Dependency Mapping Automation Installation and Configuration Guide (Installation and Configuration Guide)*.

What Do I Need?

To get started with HPOM DMA, you need to meet the following requirements and complete the following general steps.

It is recommend that you read the *Installation and Configuration Guide* before you start the installation wizard to plan your decisions and gather the information that you need.

However, experienced users should find that this condensed guide helps you to quickly get HPOM DMA installed, configured, and running. All users should be able to use this document as a checklist for the necessary tasks and as a pointer to the detailed information available in the manuals and the online help.

Install HP Operations Manager

Make sure that a supported version of HP Operations Manager is installed, including all patches and prerequisites required by HPOM DMA as it will be installed on the system hosting the HPOM management server. For further information, see Chapter 4, Preparing HPOM DMA in the *Installation and Configuration Guide*.

Install HP Universal CMDB or Business Availability Center

Make sure that a supported version of HP Universal CMDB or HP Business Availability Center is installed, including all patches and prerequisites required by HPOM DMA.

- Set up discovery to suit your environment. Specific UCMDB or BAC attributes must be available in the UCMDB so that Smart Message Mapping works. For example, include the `Host DNS Name` attribute so that nodes can be created and the `hosted_on` attribute can be set.
- To use UCMDB or BAC UI Launch, you must install the Sun Java Plug-in or a Java SE Runtime Environment (JRE). See Enable UI Launch from HPOM to BAC or UCMDB in the *Installation and Configuration Guide*.
- Create a user account with `CmdbOpenApiQuery` permissions to access the UCMDB or BAC through web services.

What Do I Install on the HPOM Host System?

Install the HP Operations Manager Dependency Mapping Automation software. Run and complete the installation process on the HPOM host system. For details, see Chapter 5, Installing HPOM DMA in the *Installation and Configuration Guide*.

Start the application installer by executing the command:

- **UNIX:**

  `<dvd-mountpoint>/hpdma_setup.sh`

- **Windows:**

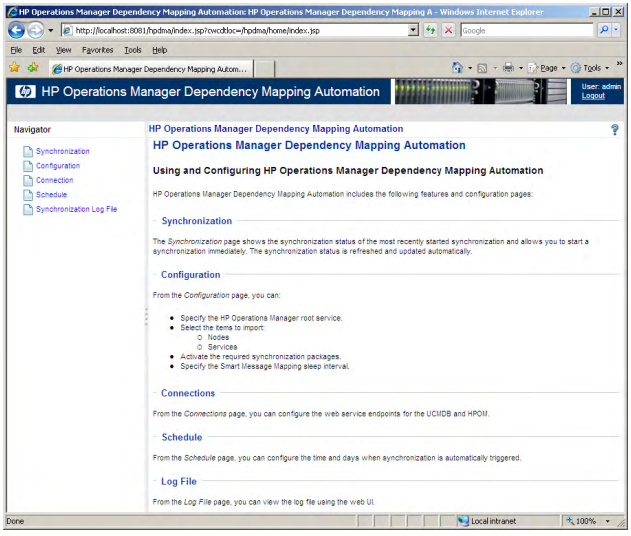
  `<dvd_drive>:\hpdma_setup.bat`

Follow the on screen instructions and progress through the installation process using the **Next** and **Install** buttons.

Start the HPOM DMA Console

Start the HPOM DMA console by double-clicking the desktop icon (Windows) or by entering the following address into a web browser:

http://*<HPOM_Server_System>*:8081/hpdma



What Do I Install on the UCMBD or BAC Host System?

HPOM DMA delivers predefined TQL queries for operating system SPIs and database SPIs which must be deployed and registered on the system hosting the UCMDB or BAC.

Upload and Deploy the HPOM DMA Package

To deploy and register the predefined TQL queries on your UCMDB or BAC host system:

1. Use the Package Manager and upload the file:
   - **UNIX:**

     `opt/OV/misc/dma/hpdma.zip`
   - **Windows:**

     `<Install_Dir>\misc\dma\hpdma.zip`

     Default:

     `C:\Program Files\HP\HP BTO Software\misc\dma\hpdma.zip`
2. From the Package list in the Package Manager, deploy the `hpdma.zip` file.

Review the TQL Queries

Review the TQL queries in the UCMDB or BAC, adapt them to your environment, and apply the enrichment rules.

For details, see Configuring Your UCMDB or BAC System for HPOM DMA in the *Installation and Configuration Guide*.

What Do I Configure in HPOM for UNIX?

The following assignments must be made on the HPOM for UNIX management server:

- Assign the CMDB Service Group to an HPOM User
- Assign the CMDB Node Groups to an HPOM User
- Assign and Deploy the OM DMA Template Group to the HPOM Management Server

Assign the CMDB Service Group to an HPOM User

`opcservice -assign <HPOM_User_Name> CMDB`

For details, see Assign the CMDB Service Group to an HPOM User in the *Installation and Configuration Guide*.

Assign the CMDB Node Groups to an HPOM User

From the HPOM UI, select an HPOM user and assign the following CMDB node groups as responsibilities for this user:

- `CMDB`
- `CMDB_removed`

For details, see Assign the CMDB Node Groups to an HPOM User in the *Installation and Configuration Guide*.

Assign and Deploy the OM DMA Template Group to the HPOM Management Server

If you want to monitor HPOM DMA, you should assign and deploy the OM DMA template group to the HPOM management server.

To assign and deploy the OM DMA template group, from the Motif UI, complete the following steps:

1. In the Message Source Templates window, select the **Group OM DMA** template.
2. In the Add Configuration window, click **Get Template Selections**.
3. Click **OK** in the open windows.

For details, see Assign the OM DMA Template Group in the *Installation and Configuration Guide*.

The agent types are automatically configured during installation, but if you add or delete agent types on the HPOM management server, you must update the agent packages installed on the HPOM management server.

For details, see Configure the Agent Types Installed on the HPOM Management Server in the *Installation and Configuration Guide*.

What Do I Configure in HPOM for Windows?

If you want to monitor HPOM DMA, you should assign and deploy the OM DMA policy group to the HPOM management server.

To assign and deploy the OM DMA policy group, from HPOM UI, complete the following steps:

1. **Policy management** → **Policy groups** → **OM DMA**
2. **Right-click** → **All Tasks** → **Deploy on...**
3. Select the management server and click **OK**.

For details, see Assign and Deploy the OM DMA Policy Group in the *Installation and Configuration Guide*.

What Do I Configure in HPOM DMA?

The following configuration steps must be completed before you are ready to synchronize HPOM with the UCMDB or BAC:

- Change the HPOM DMA Console Default Password
- Specify the Connections in HPOM DMA on page 12
- Specify the Synchronization Configurations in HPOM DMA on page 12

Change the HPOM DMA Console Default Password

To aid security, it is recommend that you immediately create at least one new user with an associated password or switch to LDAP authentication and delete the default user `admin`.

To add a new user, enter the following command:

- **UNIX:**

  `<InstallDir>/bin/dmauser.sh -a <username> <password>`

- **Windows:**

  `<InstallDir>/bin/dmauser -a <username> <password>`

Check that the new user account is available and delete the default user from the local users store.

To delete the default user `admin`, enter the following command:

- **UNIX:**

  `<InstallDir>/bin/dmauser.sh -d admin`

- **Windows:**

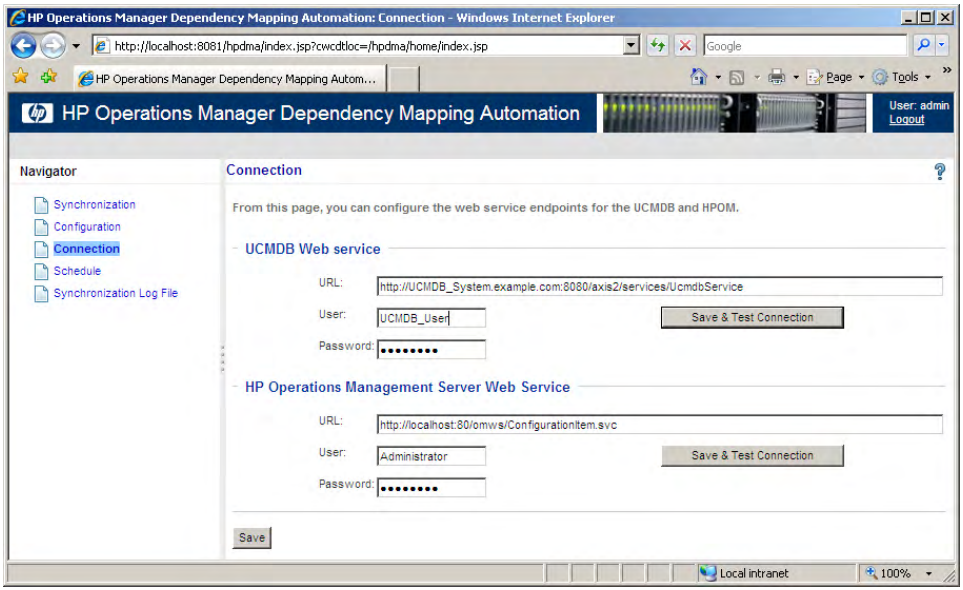
  `<InstallDir>/bin/dmauser -d admin`

For details on managing HPOM DMA users, see Managing HPOM DMA Console Users and Passwords in the *Installation and Configuration Guide*.

For details on LDAP authentication, see LDAP Authentication in the *Installation and Configuration Guide*.

Specify the Connections in HPOM DMA

Specify the web service endpoint connections between the UCMDB and the HPOM system and the import settings for HPOM DMA synchronization.



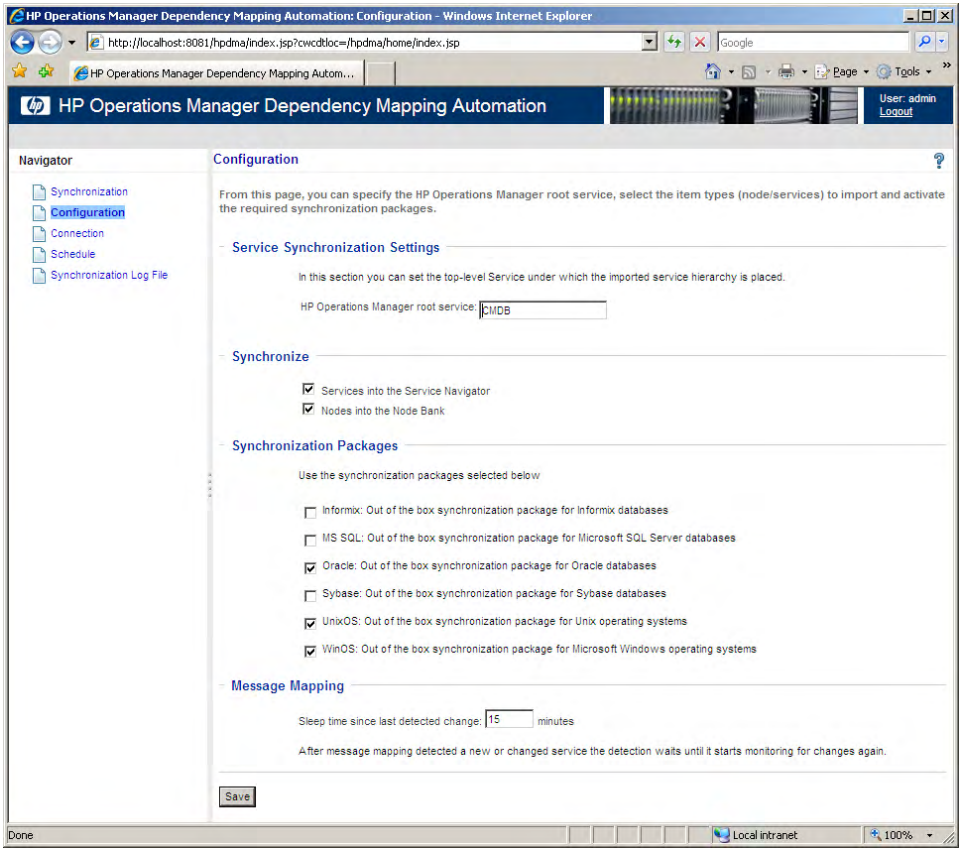
For details, see Specify the Web Service Endpoint Connections in the *Installation and Configuration Guide*.

Specify the Synchronization Configurations in HPOM DMA

Before attempting to import node and service information from the UCMDB or BAC into HPOM, you must specify some basic settings:

- HPOM root service for services imported from the UCMDB or BAC. This must have the same value as specified in Assign the CMDB Node Groups to an HPOM User in the *Installation and Configuration Guide*.
- Services and nodes configuration items to be synchronized.
- Synchronization packages that you wish to activate.

For details, refer to the HPOM DMA online help.



If you restrict service synchronization to nodes managed by a specific HPOM management server, you must complete the following steps:

- Install the Discovery Probe Patch
- Modify the UCMDB or BAC Classloader
- Install the Discovery Pattern on the UCMDB or BAC system
- Configure the TQL queries to match your selected HPOM management server

For details, see Restricting Service Synchronization to Nodes Managed by a Selected HPOM Management Server in the *Installation and Configuration Guide*.

How Do I Synchronize HPOM with the UCMDB or BAC?

Manually Synchronize Services and Nodes in HPOM

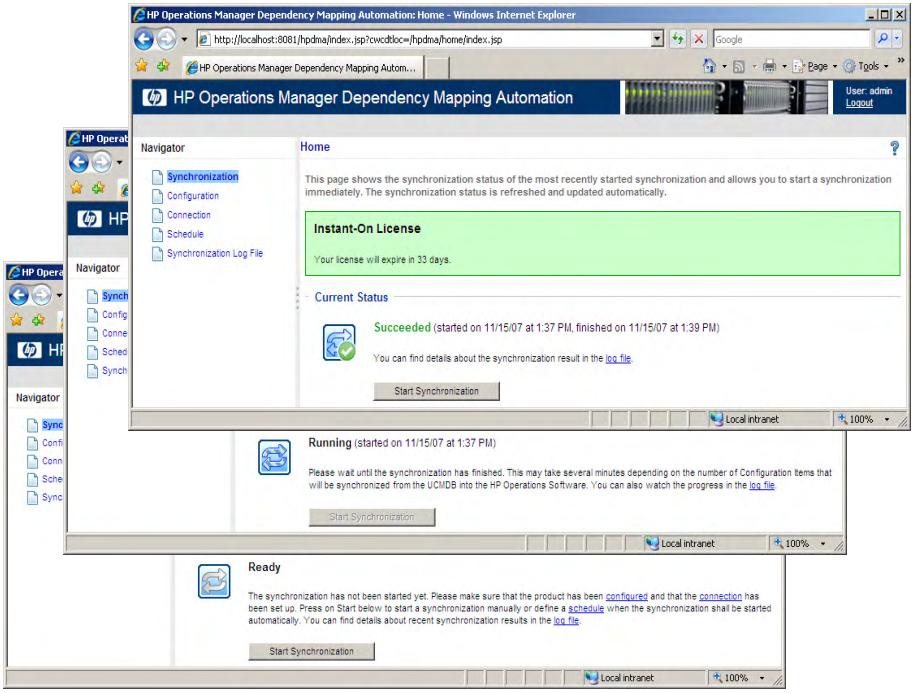
Now you are ready to manually synchronize nodes and services in HPOM with their associated CI values in the UCMDB or BAC to provide you with:

- Near real-time view of your environment
- Business services
- Dependencies between applications
- Data from other HP Software products

From the HPOM DMA console, open the Synchronization page and click **Start Synchronization** to import the latest information from the UCMDB or BAC.

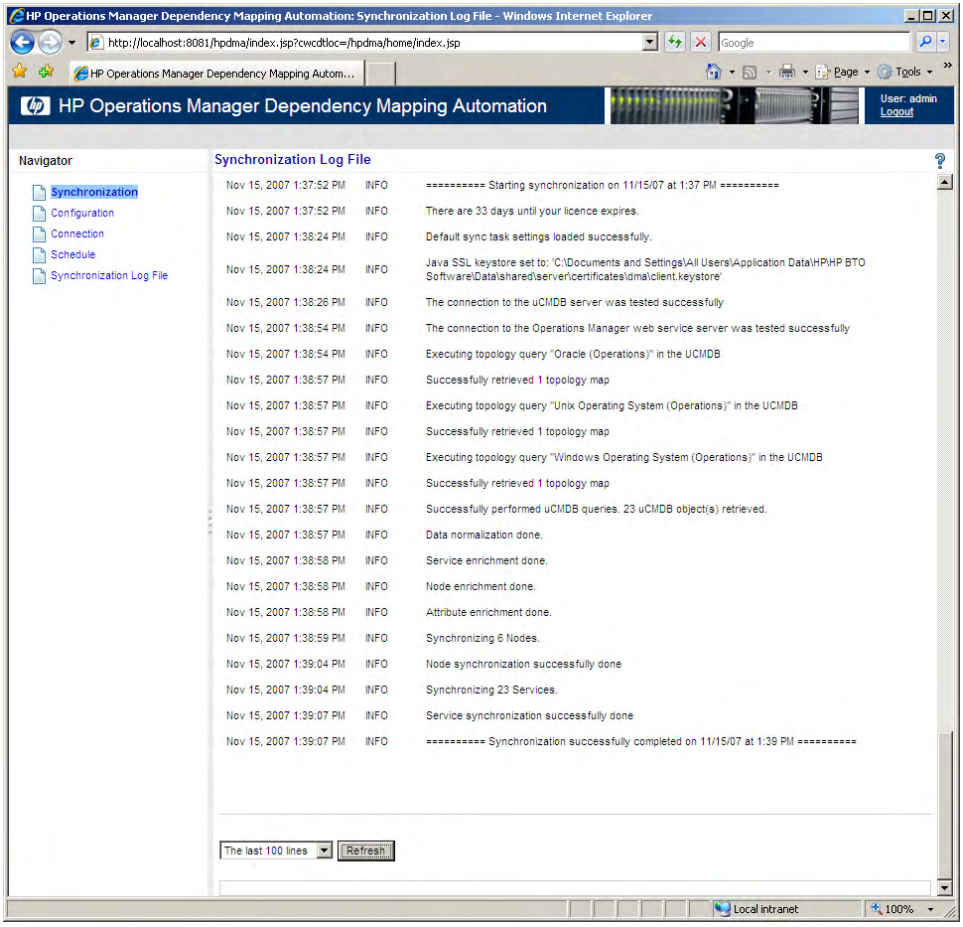
Alternatively, set up a schedule to automatically trigger synchronizations.

For details, refer to the HPOM DMA online help.

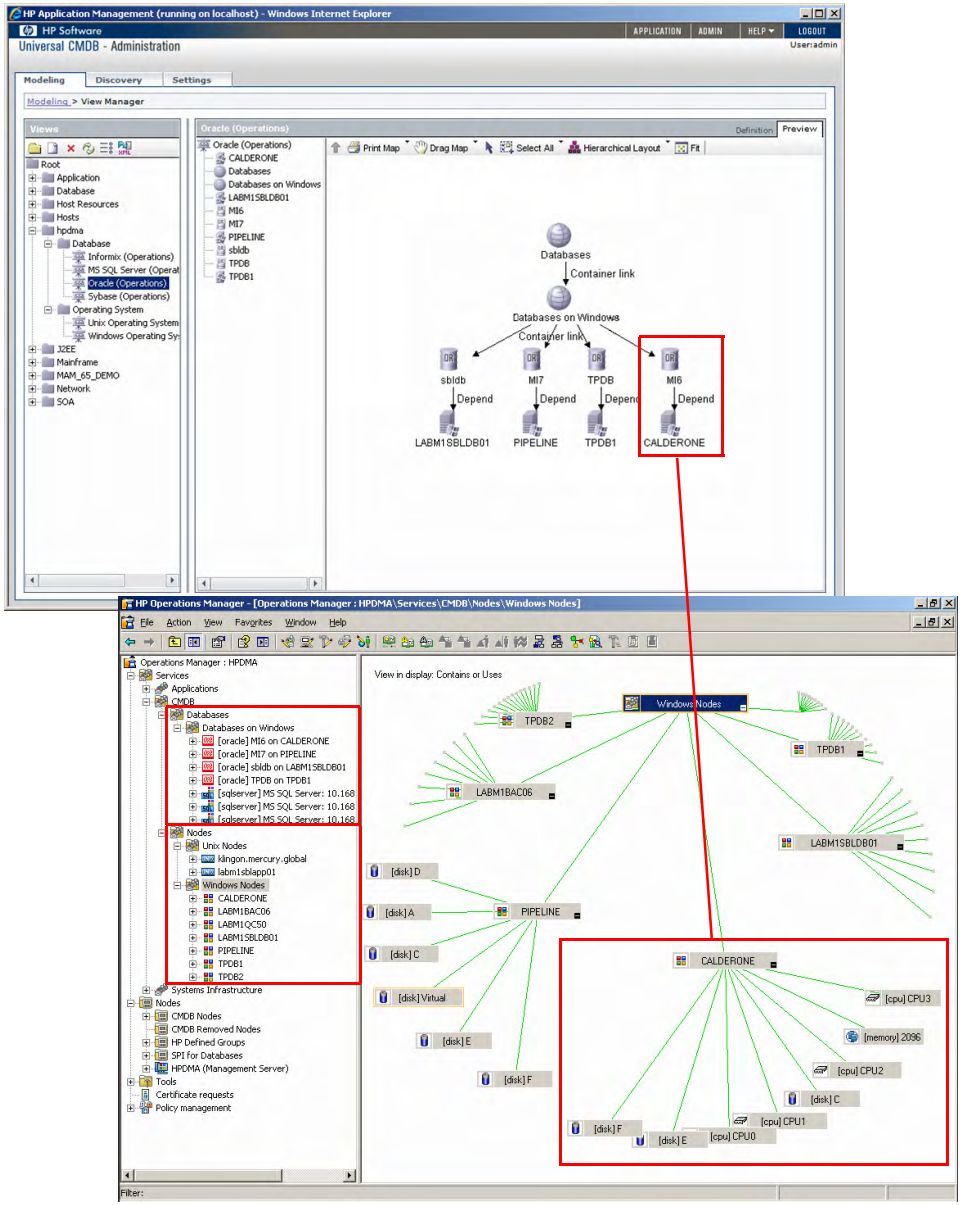


Check the Synchronization Log File

To take a more detailed look at the synchronization results, check the synchronization log file. The log file can be viewed from within the HPOM DMA console using the **log file** link on the Synchronization page or by selecting **Synchronization Log File** from the Navigator pane.



Discovery data from the UCMDB or BAC and the associated CI information is added by HPOM DMA into the HPOM Service Map, along with some associated hardware dependency details.



How Does HPOM DMA Help Me Solve Problems?

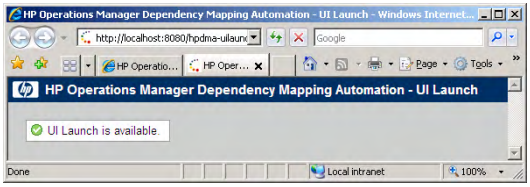
You can forward status alerts of business processes being monitored by BAC (Business Process Monitoring) into your HPOM console. When you receive status change messages, you can open the UCMDB or BAC from the HPOM console and drill down to the problem area and find information on:

- History of changes
- Complete application neighborhood
- Complete business impact

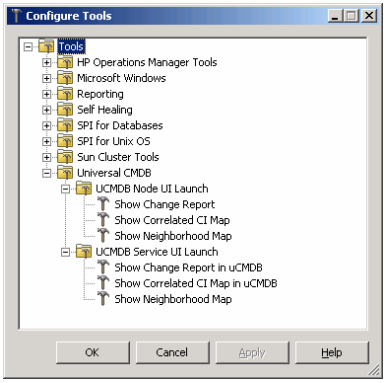
To do this, you must complete some integration steps to set up the required tools and applications:

- Upload applications or tools into HPOM
- Install the UI Launch web application

For details, see Installing and Configuring the UI Launch in the *Installation and Configuration Guide*.



The following tools and applications are installed for the UCMDB:



The complete list of applications or tools is:

- Show Correlated CI Map
- Show Change Report
- Show Neighborhood Map
- Show Triage Report (BAC only)
- Show End User Monitors (BAC only)
- Show Service Impact (BAC only)

All six tools or applications are installed for BAC.

UI Launch for Nodes and Messages from HPOM for UNIX

To UI launch into the UCMDB or BAC from HPOM and display node-related or message-related information:

1. From the Java UI, right-click a node or message to open the context menu.
2. From the context menu, select:

   Start → Applications → UCMDB or **Business Availability Center → Node UI Launch**

   The Node UI Launch applications are displayed.
3. Click the tool associated with the UI launch that you require.

   The selected UI launch view opens in a web browser.

UI Launch for Services from HPOM for UNIX

To UI launch into the UCMDB or BAC from the HPOM and display service-related information:

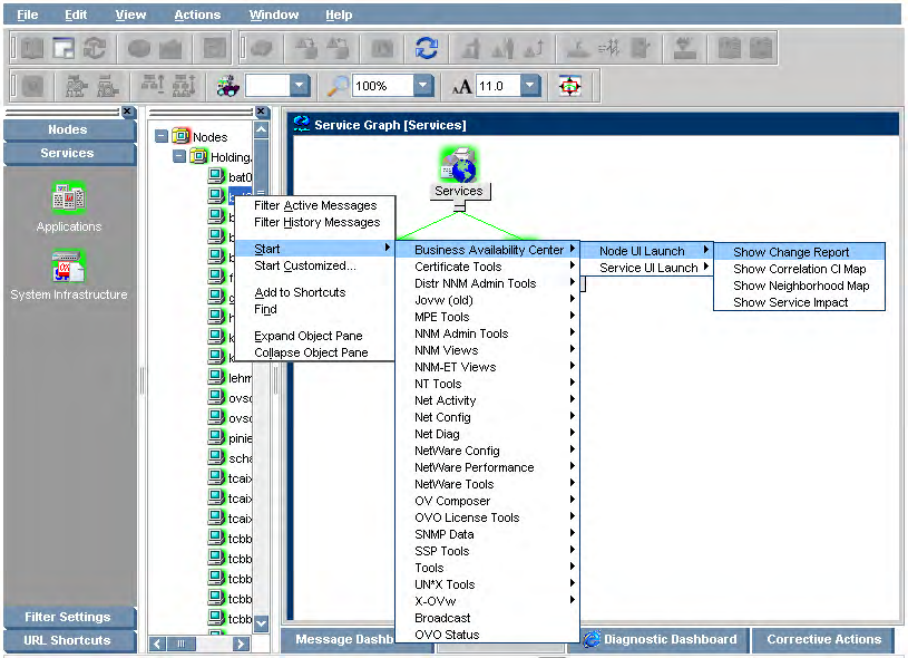
1. From the Java UI, right-click a service to open the context menu.
2. From the context menu, select:

   Start → Applications → UCMDB or **Business Availability Center → Service UI Launch**

   The Service UI Launch applications are displayed.

3 Click the tool associated with the UI launch that you require.

The selected UI launch view opens in a web browser.



UI Launch for Nodes and Services from HPOM for Windows

To UI launch into the UCMDB or BAC from HPOM and display node-related or service-related information:

1 Right-click a node or service to open the context menu.

2 From the context menu, select:

All Tasks → Launch Tool

3 In the Tool dialog, select the tool associated with the UI launch that you require and click **Launch**.

The selected UI launch view opens in a web browser.

UI Launch for Messages from HPOM for Windows

To UI launch into the UCMDB or BAC from the HPOM Message Browser and display node-related information:

1. Right-click a message to open the context menu.
2. From the context menu, select:

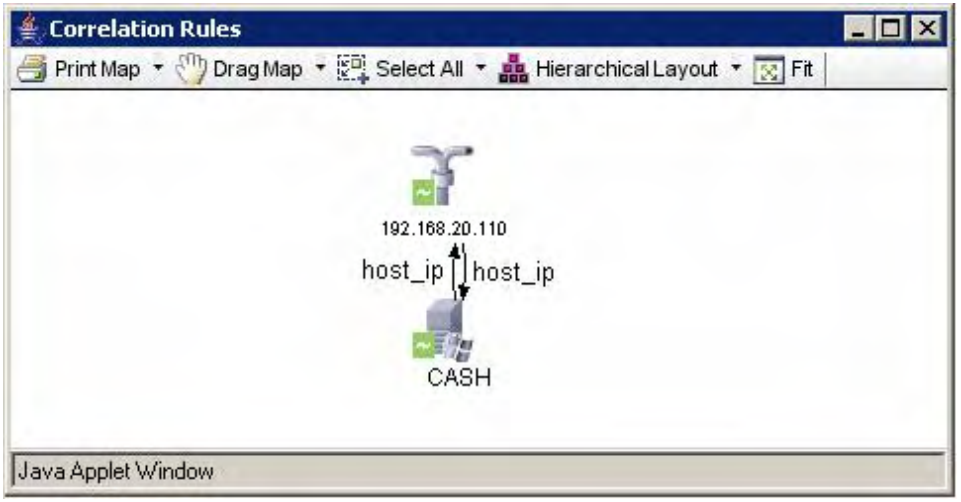
   Launch Tool → Nodes...

3. In the Tool dialog, select the tool associated with the UI launch that you require and click **Launch**.

   The selected UI launch view opens in a web browser.

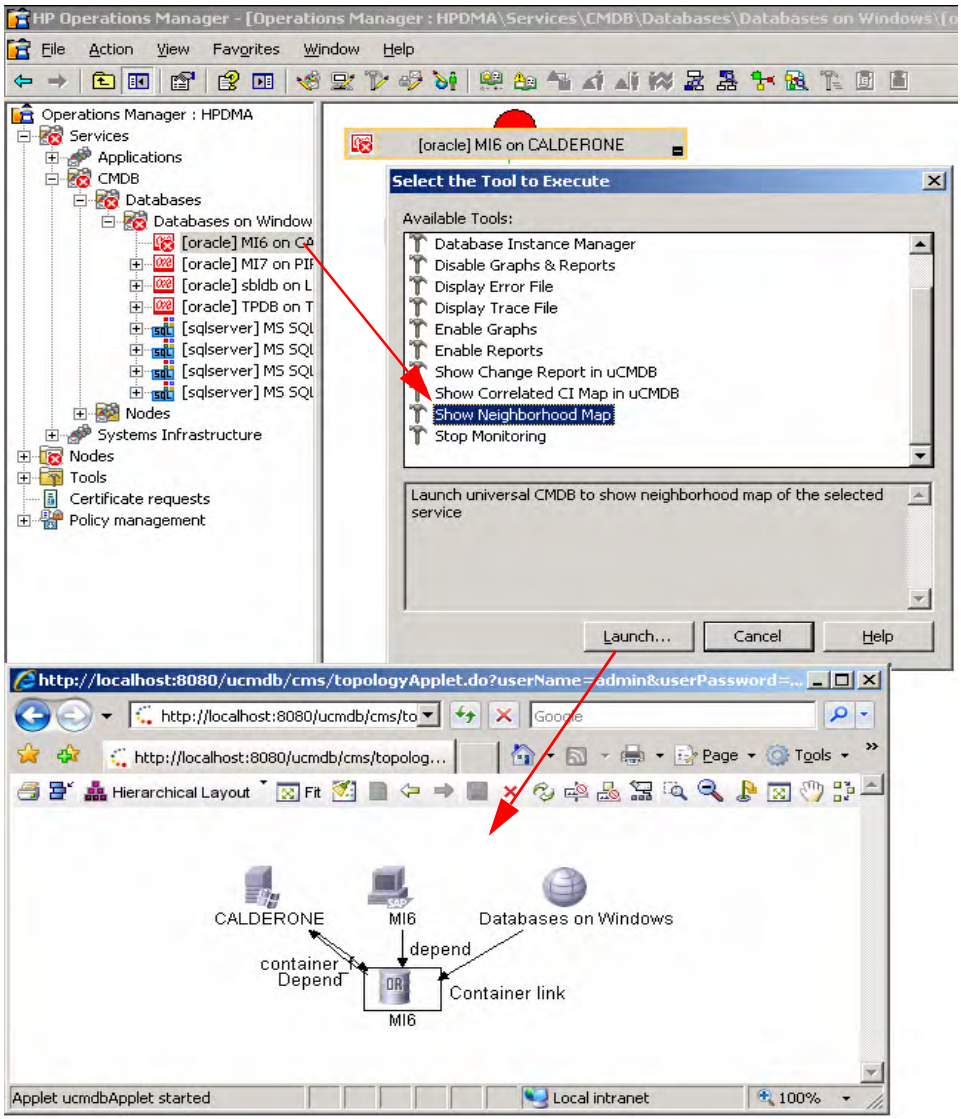
Launch the Correlated CI Map

For details on how to launch UCMDB and BAC applications and tools, refer to the HPOM DMA online help.



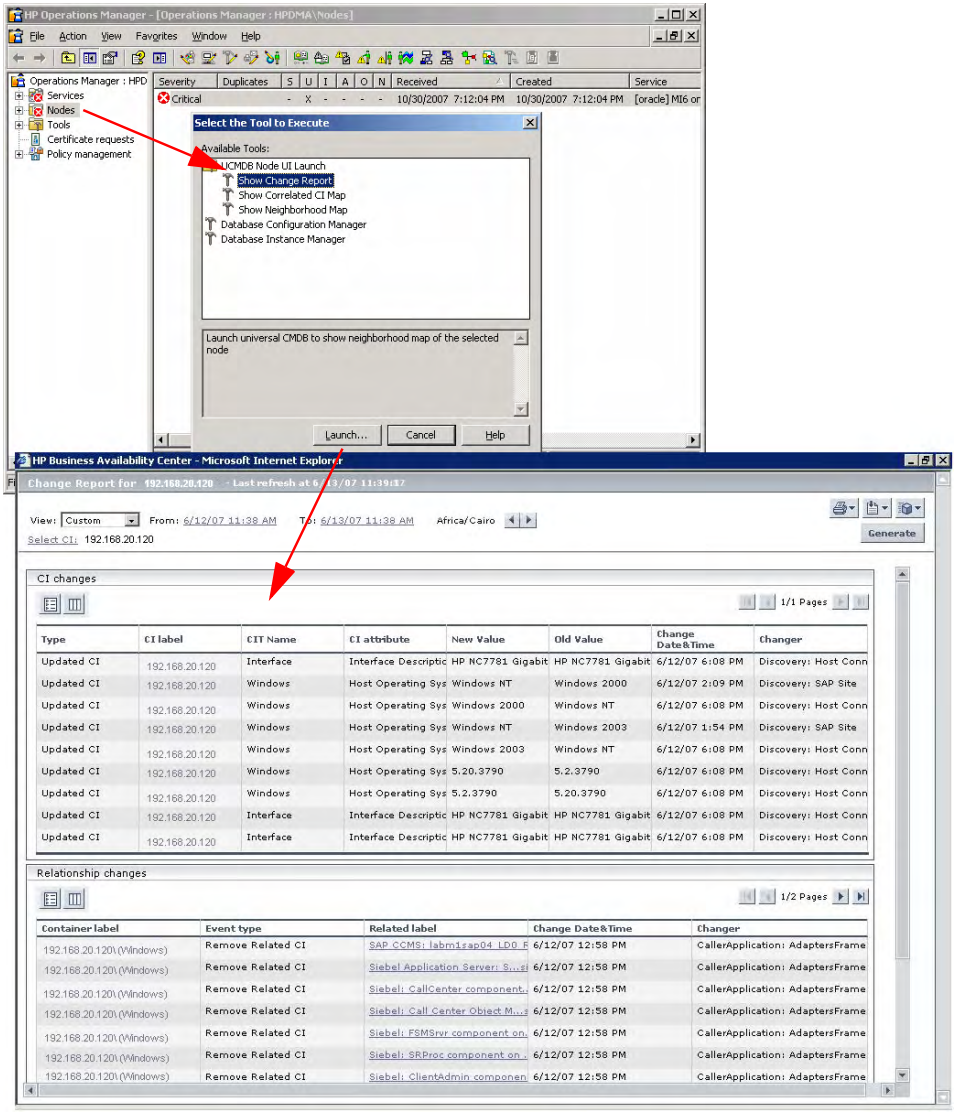
Launch the Neighborhood Map for the M16 Oracle Instance

For details on how to launch UCMDB and BAC applications and tools, refer to the HPOM DMA online help.

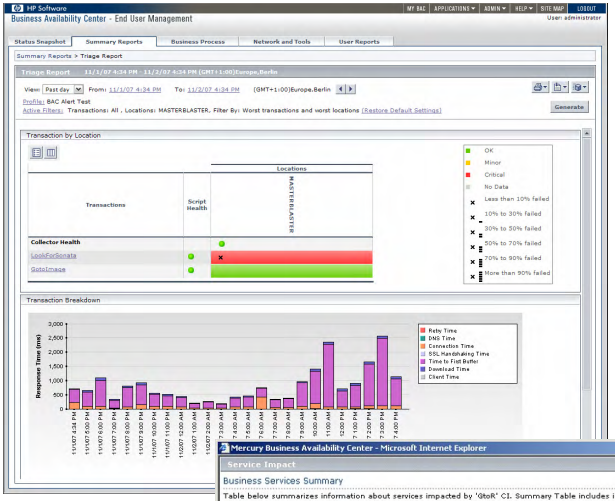


Launch the Change Report for a Node

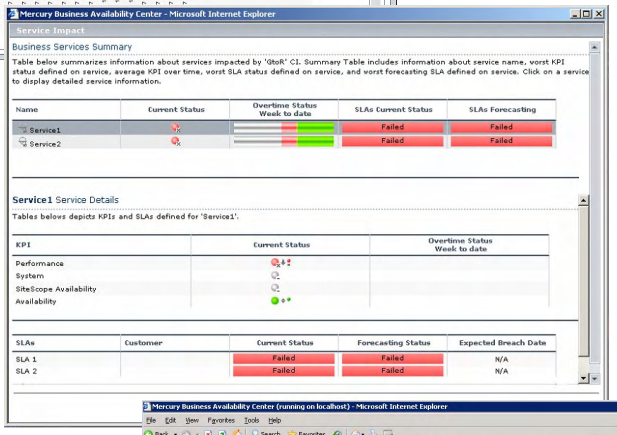
For details on how to launch UCMDB and BAC applications and tools, refer to the HPOM DMA online help.



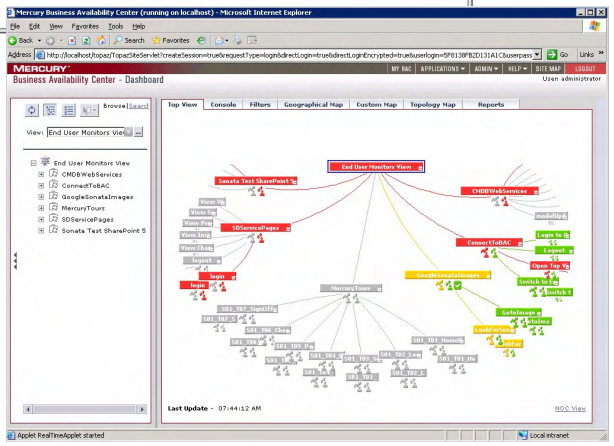
BAC UI Launches



Triage Report



Service Impact



End User Monitors

How Does HPOM DMA Help Me to Assign Messages to Services?

Configure and Activate Smart Message Mapping

Smart Message Mapping allows you to use existing custom and SPI monitoring policies without modifications. It solves the difficulties of mapping service IDs between products and provides a smooth switch between UCMDB discovery and SPI discovery.

Without Smart Message Mapping, a message containing the precise service ID is required to update a service:

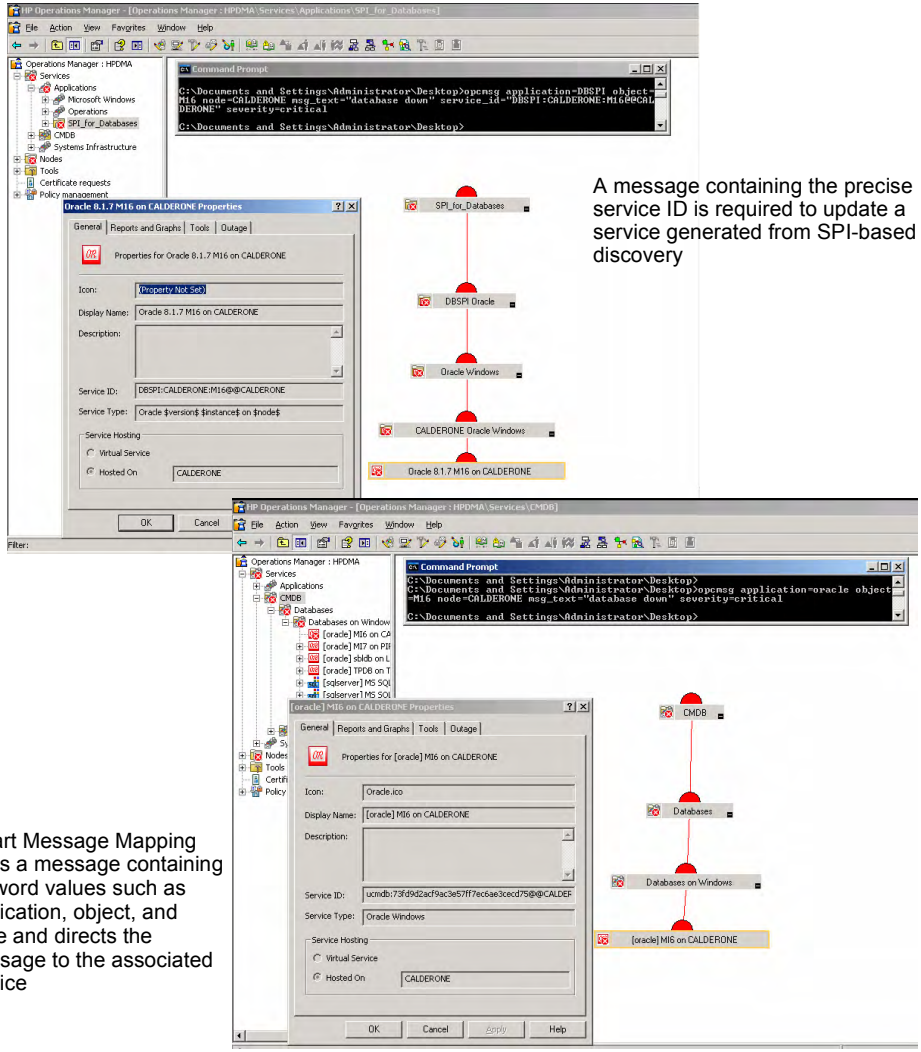
```
opcmsg application=oracle object=M16 node=CALDERONE
msg_text="database down"
service_id="DBSPI:CALDERONE:M16@@CALDERONE" severity=critical
```

Smart Message Mapping does not need the service ID to identify a target service but relies on keywords. The following message is sufficient to reach the required service:

```
opcmsg application=oracle object=M16 node=CALDERONE
msg_text="database down" severity=critical
```

The keywords `oracle`, `M16`, and `CALDERONE` are enough to identify that the message should be sent to the service with the following attributes:

```
CmdbCIType:   oracleCmdb
CICaption:    M16
hosted-on:    CALDERONE
```



If you want to run Smart Message Mapping, you must:

- Enable Server MSI and Configure policies or templates.
- Start the Smart Message Mapping component.
- Specify a Smart Message Mapping sleep time.

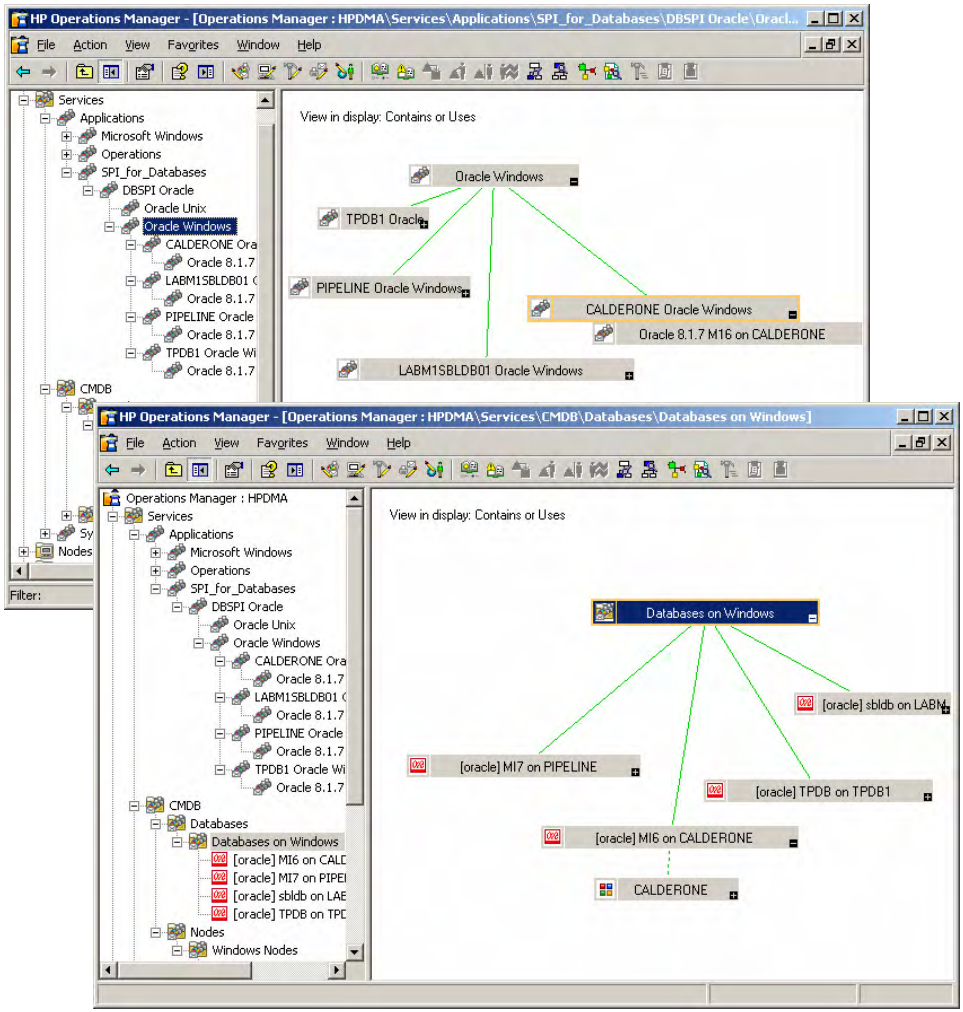
For details, refer to the HPOM DMA online help.

Select the Discovery Source

You can choose how to discover your services in the Service Navigator. The two types of discovery sources are:

- SPI discovery (agent-based)
- UCMDB discovery (agent-less)

SPI-Based Service Discovery



UCMDB-Based Service Discovery

If you want to use the UCMDB-based discovery, you must disable the service upload of the SPI discovery to avoid displaying two instances of the same service.

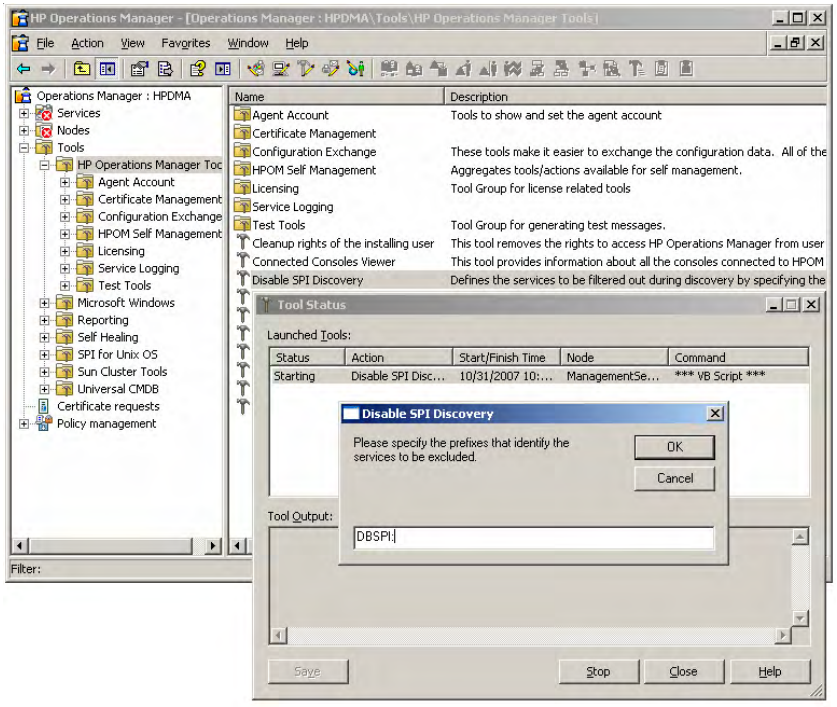
To disable discovery sources:

1 Set filters in the XPL configuration under the namespace `DiscoveryServiceFilter`.

  These filters filter out services based on service ID patterns, for example `DPSPI:`.

2 Delete service trees that were created from discovery sources that are no longer required.

The Disable SPI Discovery tool under Windows makes setting filters even easier.



In our example, we delete the service generated from the SPI:

```
DBSPI:CALDERONE:M16@@CALDERONE
```

However, the SPI discovery is still active. It is not recommended to switch off SPI discovery as some SPIs still need it for setting up their monitors.

The SPI sends a message:

```
opcmsg application=oracle object=M16 node=CALDERONE
msg_text="database down"
service_id="DBSPI:CALDERONE:M16@@CALDERONE" severity=critical
```

Smart Message Mapping finds the best matching service using information contained in the message.

For details, see Smart Message Mapping Configuration and Control and Selecting the Discovery Source in the *Installation and Configuration Guide*.

How Do I Extend HPOM DMA?

You can synchronize any CI types from the UCMDB or BAC. However, to do this, you need to create a dedicated synchronization package. How to do this is documented in the *HP Operations Manager Dependency Mapping Automation Developer's Guide*.

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