



## Installing HP OMU for Unix

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### Workflow

1. Verify all prerequisites as described in the following section are completed.
2. Install the HP OMU Integration Adapter module on the HP OMU Management Server.
3. Assign the proper policies/policy groups to each Enterprise Scheduler system.
4. Distribute the assigned policies/policy groups to each node.
5. Restart the Enterprise Scheduler master to detect that the HP OMU agent is installed and that HP OMU messages are valid actions.
6. Restart all Enterprise Scheduler components to ensure proper integrity with the restarted Enterprise Scheduler master(s).
7. The installation is complete. Proceed to the next chapter to perform the Enterprise Scheduler configuration necessary to make full use of the integration.

### Prerequisites

The purpose of HP OMU integration with Enterprise Scheduler is to monitor the operation of Enterprise Scheduler components, receive events, and perform actions within the product. Therefore, it is recommended that you first install and implement Enterprise Scheduler and obtain a good understanding of its operation. Performing the tutorial exercises available on your DVD is very helpful, as is the specialized training available with Enterprise Scheduler. After you are satisfactorily scheduling and tracking your own jobs, you can install the module for HP OMU with a high expectation of success. You should already be familiar with the use of your operating system(s) and HP software.



#### Note

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For information regarding training classes for Enterprise Scheduler and its various components, contact your sales representative.

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The following prerequisites must be met prior to installing and configuring the integration:

- HP OMU is installed and operational
- Enterprise Scheduler software is installed, operational, and correctly licensed
- Each Enterprise Scheduler master, agent, fault monitor, and backup master you want to monitor is an HP OMU Managed Node.

**Note**

If not already completed, you must add each Enterprise Scheduler master as a managed node in HP OMU. Consult your HP OMU documentation for instructions.

Machines with Enterprise Scheduler Client Manager, agents, fault monitors, and/or backup masters installed on it, but without HP OMU installed, will function normally. However, you can not monitor those machines from HP OMU. Consult your HP OMU documentation for instructions on adding managed nodes to your HP OMU configuration.

## Installation Procedures

### Installing the HP OMU Integration Adapter

The HP OMU Integration Adapter contains HP OMU components that must be loaded into the HP OMU configuration on the HP OMU Management Server. Perform the following steps on the HP OMU Management Server.

**Note**

You must have root or Superuser privileges to install the HP OMU module. You must also shut down the HP OMU user interface console to complete this installation.

If the HP OMU Management Server is running on an HP-UX machine, the Software Distributor package used to install the integration is part of the operating system. If the HP OMU Management Server is running on a Solaris machine, the Software Distributor was installed during the HP OMU installation. Each procedure is described in this section.

To install the HP OMU Integration Adapter:

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- Step 1** Log into the HP OMU Management Server as root.
- Step 2** If one does not already exist, create a directory to serve as the mount point for the installation DVD.
- ```
mkdir <mount_point>
```
- For example:
- ```
mkdir /SD_DVDROM
```
- Step 3** Insert the installation DVD into the drive and mount the DVD.
- ```
mount -r -F DVDfs <DVDrom_device_file> <mount_point>
```
- For example:
- ```
mount -r -F DVDfs /dev/dsk/c0t2d0 /SD_DVDROM
```
- You can also use SAM to mount the DVD.
- Step 4** Run the **tar** (or equivalent) command to expand the archived package.
- Use the following command:
- ```
tar -xvf /<mount_point>/OpenView/TIDAL-SA-OV-ALLOS.tar /tmp/TIDAL-SA-OV
```
- Replace **<mount\_point>** with the directory that you created in Step .

- Step 5** Run the **opccfgupld** command to upload the template on this OMU server.  
Use the following command:

```
opccfgupld -add -subentity /tmp/TIDAL-SA-OV/DOWN_SPI
```




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**Note** Use the **-replace** command if the template is already loaded.

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- Step 6** Verify that the template was successfully uploaded in the Policy and Tool Banks in the HP OMU Admin UI.  
Log in as the `opc_admuser`.  
If you do not see the new policies and tools, examine the Software Distributor logfile (`/var/adm/sw/swagent.log`) to determine the cause of the installation failure.

## Assigning Policies

Monitoring an application with HP OMU policies is a two-step process, including assigning a selected set of policies/policy groups to each managed node and distributing (downloading) these policies/policy groups to the managed node.

Because the assignments are saved, you can redistribute the policies/policy groups at a later date without reselecting the templates to distribute.

When selecting policies/policy groups for a managed node, it is important to select only the policies/policy groups appropriate for that node. Typically, policies/policy groups are for a specific application on a hardware platform or operating system.

To assign policies/policy groups:

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- Step 1** Click the **OMU** button  in the title bar of the HP OMU Administration UI. The HPOM for Unix Configuration page displays.
- Step 2** Click the **Policy Bank** link in the Object Hierarchies section. The Policy Bank page displays.
- Step 3** In the Name column, click the **CISCO TIDAL Software** link. The Details CISCO TIDAL Software tab displays.
- Step 4** In the Name column, click the **Scheduler Templates** link. The Details Scheduler Templates tab displays.
- Step 5** Select the appropriate template by clicking the check box in its corresponding row.
- Step 6** From the Actions list, choose **Assign to Node/Node Group** to display the Selector dialog box.
- Step 7** Locate and select the appropriate node.
- Step 8** Click **OK**. A confirmation note displays.

## Distributing the Template Definitions

Once the templates have been assigned, they must be distributed (downloaded and installed) to the HP OMU Managed Nodes.

To distribute the templates:

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- Step 1** From the HPOM for Unix Configuration page, click the **Node Bank** link to display the Node Bank page.

- Step 2** Select the node(s) where components are installed. From the Actions menu, choose **Deploy Configuration** to display the Deploy Configuration dialog box.
- Step 3** Select the appropriate components, then click **OK** to distribute the templates.  
A note displays containing a successful message and additional information.
- Step 4** Login to the HP OM Java Console (Java GUI).




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**Note** The Java GUI must be installed on your computer before you can view the Message Browser.

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All messages matching your operator login responsibilities are added to the bottom of the Workspace pane. For further information regarding the installation of the Java GUI, see your *HP OMU Administrator Guide*.

A message for each selected node displays that indicates that the policies, monitors, actions and commands have been successfully distributed. If you do not see any messages concerning the distribution, verify that the HP OMU user that you are logged in as has access rights for the OpC message group on those nodes. For instructions regarding assigning responsibilities to users, see your *HP OMU Administrator Guide*.

## Restart Scheduler Components

The Enterprise Scheduler components must be stopped and restarted before the changes that occurred during the installation of the HP OMU adapter will take effect.

### Restart Enterprise Scheduler Master(s)

You must stop and restart all Enterprise Scheduler masters to which you have distributed the HP OMU agent software and templates before the changes can take effect. The restarted master should have HP ITO actions enabled.

To restart the master, follow these steps:

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- Step 1** From the command line of the master machine, stop the master by entering:
- ```
tesm stop
```
- Step 2** Verify that the master has completely stopped, by entering:
- ```
tesm status
```
- Step 3** Once the master has stopped, restart it by entering:
- ```
tesm start
```
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## Create Account User Definitions in Enterprise Scheduler

Enterprise Scheduler validates Windows logon names against its own user database. During installation of the master, you provide Enterprise Scheduler your Windows user name and password. Enterprise Scheduler creates the first Enterprise Scheduler user account for you with this information and automatically assigns you Superuser capability. The Superuser option provides access to all Enterprise

Scheduler functions and supersedes all security policies because it encompasses all security permissions. Refer to your *Cisco Tidal Enterprise Scheduler User Guide* for information regarding creating user accounts.

If you are using a Windows version of Enterprise Scheduler, as part of HP OMU integration you must add a user with the user name HP ITO account to Enterprise Scheduler.

**Note**

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The Unix version of Enterprise Scheduler does not require a HP ITO account user.

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The HP ITO account user definition must have the Superuser option selected.

As part of HP OMU integration, you must also add a user with the user name **opc\_op** to Enterprise Scheduler. The **opc\_op** user definition must have the Superuser option selected. This user ID is used when executing operator-initiated actions from within HP OMU.

## Adding a User

To add a user:

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- Step 1** From the Navigator pane, select **Administration > Interactive Users** to display the Users pane.
  - Step 2** Right-click in the Users pane, and select **Add Interactive User** from the context menu to display the User Definition dialog box.
  - Step 3** In the User Name field, enter the HP ITO or opc\_op, as appropriate for the user definition you are creating.

**Note**

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The Unix version of Enterprise Scheduler does not require a HP ITO user account.

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- Step 4** Select the Superuser option.
  - Step 5** Click **OK** to save the new user definition.
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## Configuring the Adapter for a Unix Master

To use the HP OMU adapter with Enterprise Scheduler's Unix master, configuration of the master is required.

To configure the adapter for a Unix master:

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**Step 1** Create a file called `umlist` in the Enterprise Scheduler directory on the Unix master machine:

`/etc/TIDAL/umlist`

**Step 2** In the `umlist` file, enter the following information on a single line with a single space between each entry:

- **<masterID>** The master ID (should match the master ID in the `master.props` file; e.g., **TidalSAMaster**).
- **<user>** The user account that installed the Unix master; e.g., **root**.
- **<host>** The machine name of the Unix master machine; e.g., **galaxy4**.
- **<master\_directory>** The directory path to the Unix master directory; e.g., `/opt/unixsa/TIDAL/master`.
- **<java\_home>** The directory path to the JVM being used by the Unix master.  
This directory will be the directory above the `bin` directory in the Java directory path. For example, if the Java directory path is `/usr/java1.4/bin/java`, then **<java\_home>** is `/usr/java1.4`.
- **<ito\_user>** The user account, `opc_op`, created earlier in Enterprise Scheduler. (The HP OMU user account is not used with the Unix master.)

The file will resemble the following example:

```
testserver oracle galaxy4 /opt/unixsa/TIDAL/master/usr/java1.4 opc_op
```

**Step 3** In a text editor, open the `master.props` file in the config directory where the Enterprise Scheduler files are installed on the Unix master machine.

**Step 4** On a separate line in the file, add the **<opcmsgPath>** parameter providing the directory path to the `opcmsg` executable file.

For example:

```
opcmsgPath=/opt/OV/bin/OpC/opcmsg
```



**Note** On a Windows master, the **opcmsgPath** parameter in the `master.props` file would look like this:

```
opcmsPath=\\Program Files\\HP OpenView\\Installed  
Packages\\{790c06b4-844e-11d2-942b-080009ef8c2a}\\bin\\opc\\opcmsg.exe
```

**Step 5** Add a new line that specifies the **<masterID>** parameter. For example:

```
masterID=TidalSABackup
```

**Step 6** Save the changes and close the `master.props` file.

**Step 7** Stop and restart the master to recognize the new configuration.

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## Using Unix Agents

To monitor the Enterprise Scheduler agent on Unix, an additional configuration step is necessary prior to distributing the HP OMU templates to the machine. The HP OMU templates that monitor the Unix Enterprise Scheduler agents rely on this configuration step.

You must create the file `/etc/TIDAL/aglist` on each managed node. You may have to create the `/etc/TIDAL` directory if it does not already exist. Permissions must be set to allow all users to read the file. This means at least read and execute permissions on the `/etc/TIDAL` directory, and read permissions on the `aglist` file itself (i.e. `chmod -R a+rx /etc/TIDAL`).

The `aglist` file should contain a line for each Unix agent that you want to monitor. Since each line includes the host name, you can create a single `aglist` file containing all agents on every node, and place a copy of that file on each Enterprise Scheduler Unix agent node. Or, you can create a separate file on each managed node that lists only the agents on that node.

The format of each line of the `aglist` file is as follows:

**<descriptive-name> <user> <host> <tidalagent-directory-path>**

where:

**<descriptive-name>** is a defined string explaining what the product is used for or where it is deployed (such as “development”, “accounting”, etc.) or just the agent name (for example, `TIDAL_AGENT_2`).

**<user>** is the user name (login name) of the user who owns the Enterprise Scheduler agent files

**<host>** is the name of the host machine where the product is installed

**<tidalagent-directory-path>** is the directory where the product is installed (the `$tidalagent` variable)



### Note

Fields in the `aglist` file cannot contain spaces. Fields may be separated by spaces or tabs. Per normal Unix convention, include a new line at the end of the last line of data.

The following is an example of the `aglist` file in the java-based version of the Enterprise Scheduler Agent for Unix:

```
production tidal bigserver /opt/ocs development devuser devserver /usr/local/ocs accounting
account deptserver /home/account/ocs
```

