

## Tru64 UNIX

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Configuring SNMP for Threshold Set and Trap  
Operations for Compaq Insight Manager

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## Configuring SNMP for Threshold Set and Trap Operations for Compaq Insight Manager

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## Configuring SNMP for Threshold Set and Trap Operations for Compaq Insight Manager

The Extensible Simple Network Management Protocol (eSNMP) is the SNMP agent architecture for Tru64 UNIX. It includes a master agent process and multiple related processes containing eSNMP subagents. The master agent performs the SNMP protocol handling; the subagents perform the requested management commands. Tru64 UNIX provides the `snmpd` daemon as the SNMP master agent. This daemon is started when the system boots. For information on how to set up and configure the `snmpd` daemon, see the `snmpd(8)` reference page of your version of the operating system.

Release 4.7 of the Compaq Management Agents for Tru64 UNIX includes a subagent for the Compaq Threshold MIB, `cpqthresh_mib`. You must configure the SNMP agents so that the system administrator or operator is able to set thresholds from the Compaq Insight Manager web pages, or from the Compaq Insight Manager XE Management Console.

This Best Practice document describes how to configure and restart the SNMP agent and the Compaq Management agents so that thresholds can be set.

See the Tru64 UNIX Best Practices Web page for more information about Best Practices documentation, including “Updating the Compaq Management Agents for Tru64 UNIX from the Management CD.”

### Is This Best Practice Right for You?

Not all Best Practices apply to all configurations, so you must be sure that it is appropriate for your system and circumstances. To use this Best Practice, you must meet the requirements described in the following table:

Requirement	Description
<p>Operating System/Compaq Management Agents Software</p> <p>The requirements to the right indicate the proper combination of the operating system version and (if necessary) the installation of Compaq Management Agents Software from the Compaq Management CD to support threshold operations.</p>	<ul style="list-style-type: none"> <li>• Tru64 UNIX Version 4.0F and Compaq Management Agents Version 4.7 or higher</li> <li>• Tru64 UNIX Version 4.0G and Compaq Management Agents Version 4.7 or higher</li> <li>• Tru64 UNIX Version 5.0 and Compaq Management Agents Version 4.7 or higher</li> <li>• Tru64 UNIX Version 5.0A and Compaq Management Agents Version 4.7 or higher</li> <li>• Tru64 UNIX Version 5.1</li> <li>• Tru64 UNIX Version 5.1 and Compaq Management Agents Version 4.9 or higher</li> </ul>
Impact on Availability	<ul style="list-style-type: none"> <li>• The system will be available for users at all times, however, it will not be able to be discovered by the Compaq Insight Manager Console until the <code>snmpd</code> and <code>insightd</code> daemons are restarted.</li> </ul>
Assumptions	<ul style="list-style-type: none"> <li>• The instructions assume that you are configuring SNMP on a single system, not a cluster.</li> </ul>

## Before You Begin

Before you apply this Best Practice, you must understand some background information and be prepared to answer several questions.

Configuring SNMP for Threshold set operations requires that you edit two files, `WEBAGENT.INI` and `/etc/snmpd.conf` to designate a community value. This value must match in both files.

Configuring SNMP for trap operations requires that you edit `/etc/snmpd.conf` to designate a community value for sending Version 1 SNMP traps.

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**Note**

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The Compaq Insight Manager XE Management Console can recognize only SNMP Version 1 traps at this time.

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For additional information on Compaq Insight Manager, see the `insight_manager(5)` reference page of your version of the operating system.

See the *Network Programmer's Guide* for information on eSNMP.

## Be Prepared to Answer these Questions

Before configuring the SNMP Agents on your Tru64 UNIX system, prepare yourself to answer the following questions:

- Which version of Tru64 UNIX is your system running?
- Which name will you choose for the write-enabled community name?  
The examples in this document use `insight`.
- Which name will you choose for the trap community name?  
The examples in this document use `public`, the default value.
- What is the location of the `WEBAGENT.INI` file?

### Choosing a Set Community Name

The write-enabled community name for the SNMP set operations may be any string except `public`.

You will use this string to identify the write-enabled community for SNMP set operations in the SNMP configuration file and in the `WEBAGENT.INI` file

You can find information on the community name in the `snmpd(8)` reference page of your version of the operating system.

### Choosing a Trap Community Name

You will need to add a trap statement in the `/etc/snmpd.conf` file to identify the trap community name and the device (system) that receives the SNMP traps.

Typically, this device will be the Windows NT server that runs the Compaq Insight Manager XE Management Console, which uses the community name `public`, by default. Alternatively, you can identify the local host and use the `snmp_traprcv` command to test trap transmission. Or, you can specify any host that runs software that is able to recognize Compaq Threshold MIB trap definitions.

See the `snmpd(8)` reference page for more information on the trap community name. See the `snmp_traprcv(8)` reference page for more information on receiving SNMP traps.

### Determining the location of the WEBAGENT.INI file

You can find out by issuing the following command:

```
# ps -ef | grep -i cpqthresh_mib | grep -v grep
```

The command output will resemble one of the following lines:

```
root 12278 1 0.0 ... /usr/sbin/cpqthresh_mib
root 12278 1 0.0 ... /var/opt/CPQIM100/bin/cpqthresh_mib
```

Use the pathname displayed in the output of the `ps` command to locate the `WEBAGENT.INI` file on your system as follows:

- The `WEBAGENT.INI` file is located in the directory `/var/im/webagent` if the pathname is `/usr/sbin/cpqthresh_mib`.
- The `WEBAGENT.INI` file is located in the directory `/var/opt/CPQIMddd/web/im/webagent` if the pathname is `/var/opt/CPQIMddd/bin/cpqthresh_mib`.

The value `ddd` indicates the version of the Compaq Management Agents software.

### Applying the Best Practice

Before you configure SNMP for Threshold set and trap operations for Compaq Insight Manager, be sure to follow the recommendations in *Before You Begin*.

Here are the steps to take:

1. Log in as `root` on the Tru64 UNIX system.
2. Use the following command to stop the `insightd` daemon:

```
# /sbin/init.d/insightd stop
```

3. Use the following command to stop the `snmpd` daemon:

```
# /sbin/init.d/snmpd stop
```

4. Edit the file `/etc/snmpd.conf` to add a line to define the write-enabled community name.

This line should resemble the following, which establishes a community named `insight` whose Internet Protocol (IP) address specifies the local host; this community allows write permission.

```
community insight 127.0.0.1 write
```

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**Note**

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To ensure a secure network, do not use the `public` community in this instance. Set the IP address to the local host.

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5. Continue to edit the file `/etc/snmpd.conf` to set up the Version 1 trap information.

The line to set up an SNMP trap should resemble the following.

```
trap public x.y.z
```

The value `x.y.z` is the IP address of the host that will receive the SNMP traps.

You can specify the IP address of the Windows NT server, which runs the Compaq Insight Manager XE Management Console.

6. Edit the `WEBAGENT.INI` file to add, or change, the specification of the write-enabled community name. Use the same write-enabled community name that you added in the `/etc/snmpd.conf` file.

This example uses the write-enabled community name `insight`:

```
IDS_SNMP_WRITE_COMMUNITY=insight
```

7. Set the permissions of the `/etc/snmpd.conf` and `WEBAGENT.INI` file to 660 (read and write permission for the owner only) if a write community is specified in either of these files.

```
# chmod 600 /etc/snmpd.conf
# chmod 600 /var/.../webagent/WEBAGENT.INI
```

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**Note**

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A permission of 660 (read and write permission for the owner and group) is an acceptable alternative..

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8. Use the following command to start the `snmpd` daemon.

```
# /sbin/init.d/snmpd start
```

9. Use the following command to start the Compaq Management Agents.

```
# /sbin/init.d/insightd start
```

## Verifying Success

To verify the successful configuration of SNMP for Threshold set and trap operations, perform the following steps:

1. Verify that the SNMP agents are running.

```
# ps agx | egrep "snmpd|mib|insightd"
```

Be sure that the `insightd` and `snmpd` daemons and the `cpqthresh_mib` are running.

2. Use a browser to access the Compaq Insight Management Agents web pages for your system. Use the following URL:

```
http://hostname:2301
```

The value `hostname` is the name or IP address of the system running the SNMP agents.

3. Click on the `Login Account` link at the top of the Device Home Page.
4. Log in as the administrator by entering the Compaq Insight Manager Administrator login name and password, then click on `OK`.

On successful login, you return automatically to the Device Home page with the `administrator login account` link.

5. Click on `Compaq Management Agents icon`.

The `Navigation and Summary` frames are displayed.

6. Locate the `Mass Storage` portion of the `Navigator Frame` and click on `File System Space Used`.

The `File System Space Used` page opens in the `Data Frame`.

7. Look for these three buttons at the bottom of the web page for `Mass Storage`.

- `Synchronize thresholds for all volumes`
- `Reset to Original Values`
- `Save thresholds`

The existence of these buttons indicates a successful configuration.

8. Optionally drag the triangular indicators on the `File System bar graphs` to set thresholds.

If the Best Practice was not successful, see *Troubleshooting* for information about identifying and solving problems.

## Troubleshooting

Use the following table to identify and solve problems:

Problem	Possible Solutions
The browser did not access the Compaq Insight Management Agents web pages.	<ul style="list-style-type: none"><li>• Check that the <code>snmpd</code> and <code>insightd</code> daemons are running.</li><li>• Check that <code>os_mibs</code>, <code>cpq_mibs</code> and <code>cpqthresh_mib</code> are running.</li><li>• Check the browser's network configuration.</li><li>• Check the network connections.</li></ul>
The thresholds could not be set.	<ul style="list-style-type: none"><li>• Check the configuration of the <code>WEBAGENT.INI</code> file.</li><li>• Check the configuration of the <code>/etc/snmpd.conf</code> file.</li></ul>

## Comments and Questions

We value your comments and questions on the information in this document. Please mail your comments to us at this address:

[best\\_practices@zk3.dec.com](mailto:best_practices@zk3.dec.com)

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