
HP Operations Manager

for the management server on Red Hat Enterprise Linux Advanced Platform operating system

Release Notes

Software Version: 9.01

Release Notes Publication Date: April 2, 2010

Edition 2

This document provides an overview of HP Operations Manager (HPOM) version 9.01. It contains important information not included in the manuals or in online help.

The first page of this document contains the version number, which indicates the software version and the publish date, which changes each time the document is updated. To check for recent updates or to verify that you are using the most recent edition, select Operations Manager for UNIX at the following location:

<http://support.openview.hp.com/selfsolve/manuals>

This document provides information about the following topics:

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Media Kit Contents

The HPOM on Linux media kit contains a number of CDs and DVDs required to install the HPOM on Linux foundation product, HP Performance Agent 5.0, HP Performance Manager 8.21, SiteScope 10.10, and HP Reporter 3.8x.

Enhancements and Fixes with this Patch

The following HP Operations management server patch is available for the Linux operating system:

Table 1 Management Server Patch 9.01.300

Patch Name	Patch ID
HPOM consolidated server 9.01.300	OML_00006

The following enhancements are available with this patch:

Management Server

- The `opcbbackup_online` and the `opcrestore_online` tools were enhanced for the local and remote database installation:
 - `opcrestore_offline` and `opcrestore_online` can automatically restore a backup of a local database without user intervention even if control files or the complete database are missing.
 - Better support for remote database with `opcbbackup_online` and `opcbbackup_offline`.
- The `opcdata_set_*` API was enhanced to allow setting the CMAs in the message filter data structure. Notice that the filtering for message keys is not yet enabled.
- The `MGMTSV_KNOWN_MSG_NODE_NAME` variable can now be used in message key relations.
- A new event correlation policy is provided for policy based message storm detection. For details, see the *HPOM MessageStorm Detection whitepaper*.
- The Hotfix deployment tool is now installed with this patch. Hotfix Deployment tool supports hotfixes for Lcore, CODA and EA AGENT binaries. As the tool uses the `sp` option of `ovdeploy`, the `ovdeploy` version should be 06.20.052 or higher on the management server and on the managed node.
- In the previous HPOM releases it was possible to send the Forward Manager information to the trouble-ticket system if `OPC_TT_SHOW_FORW_MGR` was set to `TRUE`. However, if a message was not forwarded, the Forward Manager information was not sent to the trouble-ticket system. Now, an empty string is sent instead of the Forward Manager information for non-forwarded messages.
- The `opctemplfile_*` and `opctempl_*` APIs and the `opctempl` command-line tool were adapted to be backward compatible. It is now possible to add the HPOM 8.xx templates (for example, for the NNMI integration) by using the `opctempl -add` command.
- HPOM was enhanced to allow policy import of the SNMP trap policies from the third party tools like `mib2policy`.

- The default ECS circuit was updated with a new version of the Composer Correlator ECS circuit.

New Support Announcements

HPOM patch 9.01.300 introduces support of the following environments:

Red Hat Enterprise Linux 5.4

HPOM is now supported on Red Hat Enterprise Linux 5.4, as well as Red Hat Enterprise Linux 5.4 cluster suite. For detailed information about the management server software requirements, refer to the *HPOM Installation Guide for the Management Server*.

Oracle 11g Release 2

HPOM now supports Oracle 11g Release 2 (11.2). For more information, see “Oracle Database” on page 17.

Oracle 11.2 is also supported with the HPOM remote database. Notice, that the installation and configuration procedure of the remote database was changed. For details, see “Documentation Errata” on page 36.

What's New in this Release

HPOM 9.01 contains new features, feature enhancements and other changes.

New Features

HPOM 9.0x contains the following new features:

64-Bit Application

HPOM on Linux is a 64-bit application. All the HPOM major binaries, libraries, scripts, and other utilities are ported to the Linux operating system and run as 64-bit applications on AMD or Intel x86-64 platforms.

Web-based Administration for HPOM

HPOM provides a new web-based Administration UI which replaces the Motif UI. The key benefits of the new web-based Administration UI are:

- Web-based configuration of HPOM.
- Concurrent use by multiple administrators with different access rights.
- Improved navigation and editing of HPOM configuration items.
- Policy (template) versioning and comparison capabilities to quickly identify configuration changes and differences.

You can install the Administration UI on the HPOM system after the server installation is complete. HPOM Administration UI user documentation is available online at the Support web site.

New Policy Types

HPOM templates are now referred to as policies, and provide new monitoring capabilities:

- The **Windows Management Interface** (WMI) policy type monitors the properties of WMI classes and instances, and responds when a property matches a value you select, or when an instance you select is created.
- The **Nodeinfo** policy type allows you to configure some aspects of agent behavior, for example, buffer sizes, IP addresses, and port numbers for client-server communication.
- The **Service Process Monitoring** policy type monitors services and processes which are running on managed nodes and sends a message when the state of the service or the process changes.
- The **Measurement Threshold** policy type evaluates performance data and responds if the data does not remain within acceptable levels. This policy type is useful if you want to monitor parameters that are constantly changing, such as CPU load, disk space, number of running processes, and so on. You can also use VB Script or Perl to perform your own calculations and decide if the threshold has been crossed.
- The **ConfigFile** policy type is used by Smart Plug-Ins (SPIs) such as SAP or Microsoft Exchange to configure instrumentation after SPIs are deployed on nodes.
- The **Windows Event Log** policy type allows access to several event log sources.

Policy Versioning

HPOM 8.xx templates are automatically converted into *policies* when uploaded to HPOM 9.0x. Policies serve the same purpose as templates, but policies are versioned. You can assign specific versions of a policy to managed nodes, node groups, or policy groups. You can also roll back to a specific version of a policy, and can distinguish between fixed version, always latest and always latest subversion assignments.

Category-Based Instrumentation Distribution

You can associate instrumentation with policies by using *categories*. This association ensures that the management server automatically deploys instrumentation required by a policy when it deploys that policy. Categories increase your control over which instrumentation is distributed, and to which managed nodes, thus reducing the amount of instrumentation that needs to be distributed.

Category-based instrumentation enhances and replaces the selective distribution concept, which is still available for backward compatibility. Please plan your upgrade to category-based instrumentation, since selective distribution will be deprecated.

Policy and Instrumentation Compatibility

Policies, policy groups, and instrumentation developed for HPOM on Linux are compatible with HPOM for Windows, and vice versa.

Subagent Management

This version of HPOM introduces a new type of subagent registration based on policy management features. Subagent assignment is handled by assigning subagent policies. Different versions of subagents have different versions of the respective subagent policies. This allows you to see which subagent is assigned to a managed node.

The subagent policies are not meant to be edited and are provided by a subagent supplier. Assigning such a policy to a node and deploying it using new options of the `opcragt` command installs the corresponding subagent on the node. The actual subagent policy is not deployed to the managed node and is not visible in the `opctemplate/ovpolicy` output.

Online Configuration Synchronization

This release of HPOM introduces automatic synchronization of configuration data between the HPOM management server and the Java GUI without forcing the operator to log in again to make the changes effective. Synchronization can involve changes to nodes, applications, policies, groups, user profiles, and so on. The configuration data uploaded using `opccfgupld` also does not require server restart.

Auditing

Auditing is redesigned to provide centralized event logging, four audit levels, and individual event logging configuration. Note that the audit information is no longer stored in a database, so old audit entries are lost when upgrading to HPOM 9.0x. The individual audit area variables are managed by `opcsrvconfig(1m)` and `ovconfchg(1m)`.

Unicode (UTF-8) support

This version of HPOM 9.0x introduces Unicode support. Both the Oracle database and the management server work exclusively with the UTF-8 character set, which provides multilingual support.

License Management

License management is redesigned to allow other product components to easily and flexibly integrate with HPOM. License reports are enhanced to list the license requirements of integrated components.

HPOM Web Services and Tool Web Service

HPOM Web Services enable you to develop remote clients that access HP Operations management servers using industry-standard terminology and technical standards, instead of product-specific interfaces. HPOM provides the Incident Web Service and the Tool Web Service. The Incident Web Service enables clients to access HPOM messages. The Tool Web Service enables clients to execute tools from an HP Operations management server.

Cockpit Views

The HPOM cockpit view is a web-based interface that displays the state of the environment monitored by HPOM. Cockpit views help users to quickly assess the health and readiness of the environment to support the business.

The cockpit views consist of an indicator panel and the message browser. The indicator panel displays one or more message filter groups, the message browser displays messages for each filter.

New CLIs

HPOM 9.0x includes the following new command line interfaces. Refer to the man pages for more information.

- `opcappl`
- `opcinstrumcfg`
- `opcpoltype`
- `opcpolicy`
- `opcsrvconfig`
- `ovolicence`

New Variables

In addition to many variables introduced to support auditing, the following configuration variables are introduced:

- OPC_XPL_SQL_TRACE
- OPC_KILL_OPCUIWWW
- OPC_CFGUPLD_BLOCK_RETRY
- OPC_OVHARG_START_LOCAL_AGENT
- OPC_SUPPRESS_IF_NO_CORRELATION_MSGAPPLICATION
- OPC_SOURCE_FORW_NOTIF_TO_TT
- OPC_TRUNC_MSG
- OPC_PING_SIZE
- OPC_JGUI_VER_DOWNLOAD_URL
- OPC_EMPTY_NS_CACHE
- OPC_SUPPRESS_IF_NO_CORRELATION
- OPC_SUPPRESS_IF_NO_CORRELATION_MSGOBJECT
- OPC_ENABLE_FWDCHAIN_FWDSENDER_CMA
- OPC_SUPPRESS_IF_NO_CORRELATION_MSGGROUP
- OPC_MSG_BULK_INSERT_RATE

For more information on the server configuration variables, see the *HPOM Server Configuration Variables* manual.

For the information on the audit-related variables, see the *HPOM Administrator's Reference*.

New APIs

Refer to the *HPOM Developer's Reference* guide for information about the following new APIs.

<code>opcinstrum_get_categories()</code>	<code>opcpolicytype_add_from_xml()</code>	<code>opcpolicybody_modify()</code>
<code>opcinstrum_get_category()</code>	<code>opcpolicytype_get()</code>	<code>opcpolicybody_modify_by_name()</code>
<code>opcinstrum_add_categories()</code>	<code>opcpolicytype_get_template()</code>	<code>opcpolicy_get_categories()</code>
<code>opcinstrum_del_categories()</code>	<code>opcpolicytype_modify()</code>	<code>opcpolicy_assign_categories()</code>
<code>opcinstrum_modify_categories()</code>	<code>opcpolicytype_delete()</code>	<code>opcpolicy_deassign_categories()</code>
<code>opcnode_assign_policy_groups()</code>	<code>opcpolicytype_write_xml()</code>	<code>opcpolicy_assignment_mode_set()</code>
<code>opcnode_deassign_policy_groups()</code>	<code>opcpolicytype_get_name_by_uuid()</code>	<code>opcpolicy_copy_assignments()</code>
<code>opcnode_get_policy_groups()</code>	<code>opcpolicytype_get_uuid_by_name()</code>	<code>opcpolicy_list_assignments()</code>
<code>opcnode_assign_policies()</code>	<code>opcpolicy_add()</code>	<code>opcpolicy_update_assignments()</code>
<code>opcnode_deassign_policies()</code>	<code>opcpolicy_get()</code>	<code>opcpolicygrp_get()</code>
<code>opcnode_get_policies()</code>	<code>opcpolicy_get_data()</code>	<code>opcpolicygrp_add()</code>
<code>opcnode_assign_categories()</code>	<code>opcpolicy_modify()</code>	<code>opcpolicygrp_create()</code>
<code>opcnode_deassign_categories()</code>	<code>opcpolicy_delete()</code>	<code>opcpolicygrp_modify()</code>
<code>opcnode_get_categories()</code>	<code>opcpolicy_copy()</code>	<code>opcpolicygrp_delete()</code>
<code>opcnodegrp_assign_policies()</code>	<code>opcpolicy_edit()</code>	<code>opcpolicygrp_copy()</code>
<code>opcnodegrp_deassign_policies()</code>	<code>opcpolicy_edit_body()</code>	<code>opcpolicygrp_get_list()</code>
<code>opcnodegrp_get_policies()</code>	<code>opcpolicy_get_list()</code>	<code>opcpolicygrp_get_data()</code>
<code>opcnodegrp_assign_policy_groups()</code>	<code>opcpolicy_get_list_by_type()</code>	<code>opcpolicygrp_assign_policies()</code>
<code>opcnodegrp_deassign_policy_groups()</code>	<code>opcpolicy_header_create()</code>	<code>opcpolicygrp_deassign_policies()</code>
<code>opcnodegrp_get_policy_groups()</code>	<code>opcpolicybody_get()</code>	<code>opcpolicygrp_list_assignments()</code>
<code>opcpolicytype_add()</code>		

Feature Enhancements

HPOM contains these enhancements:

Enhanced Java GUI

For a complete description of Java GUI functionality, read the *HPOM Java GUI Operator's Guide*. Highlights include:

- **Service Enhancements**

A Service Map Table view is now available in addition to the graph and custom views. This view is similar to the message browser, listing services and their properties in a table. Service Map Table View is available for service submaps and custom maps, but not for service graphs.
- **Message Enhancements**

The following enhancements are introduced with the current release:

 - When performing exporting, dragging or printing of messages from a message filter browser, the messages are sorted in the same way as they were in the message filter browser.
 - When using relative time filtering with enabled relative time recalculation, message browser is refreshed with new messages and drops the messages that become too old to satisfy the filter criteria. This behavior can be enabled by the administrator using the `OPCUIWWW_FILTER_RELATIVE_TIME_RECALC` server parameter.
- **Java GUI Window Enhancements**

A new option, `Stay On Top`, is added to the Preferences dialog. This option enables the Java GUI windows (main and detached) to stay on top of other windows. A parameter, `stay_on_top`, is introduced in `itoopec`. The default value is `no`.
- **Miscellaneous**
 - Java GUI filtering now supports CMAs with HPOM style pattern matching.
 - HPOM Java GUI can be launched with the WebStart. A link for the WebStart launch of Java GUI is added to the HPOM home page: http://<server_name>:3443/ITO_OP/.
 - The Java GUI functionality is extended to support HTTPS and FTP hyperlinks in messages.
 - For Java GUI clients connected in HTTPS mode, the `listguis` tool shows the following information: hostname (long name), IP address, connection type (`https` vs. `socket`), connection port (for example, 2531 for socket comm).
 - Some terminology is changed to be aligned with the HPOM for Windows. For example, `Applications` are now called `Tools`.

Enhanced Message Forwarding in MoM Environment

Message forwarding in MoM environment is enhanced as follows:

- Server-to-server message forwarding between HPOM for UNIX 8.xx and HPOM on Linux 9.01 using the HTTPS protocol is supported.
- When no keyword (`MSGCONTROLLINGMGR` | `NOTIFYMGR`) is set with HPOM 9.0x, `MSGCONTROLLINGMGR` (normal messages) is assumed. With HPOM 8.xx, the default behavior was read-only messages without any keyword provided (`NOTIFYMGR` was assumed by default).
- Management server restart is no longer necessary to read a modified `msgforw` file.

- Enabled filtering on CMAs; CMA-name fix, CMA-value through pattern matching.

Syntax: CMA NAME "<name>" VALUE "<pattern>"

NOTE CMA names can be used with an “|” (OR) operator.

Example of accepting all messages which have CMA cma1 or cma2 set:

```
CMA NAME "cma1|cma2" VALUE "<*>"
```

Construct patterns, like in template conditions.

- Nodes can be filtered with a pattern:

Construct patterns like for external nodes. Any one of the patterns specified in one line will match.

Syntax: NODEPATTERN <pattern_type> "<pattern>" [<pattern_type> "<pattern>" [...]]

where <pattern_type> can be either of IPPATTERN or NAMEPATTERN.

Example of matching all nodes having IP-address 192.168.*.*:

```
NODEPATTERN IPPATTERN "192.168.<*>.<*>"
```

Example of matching all nodes having hostname *.hp.com:

```
NODEPATTERN NAMEPATTERN "<*>.hp.com"
```

- Enabled filtering on node groups:

Syntax: NODE NODEGROUP "<node_group>" [NODEGROUP "<node_group>" [...]]

Enhanced HPOM Backup and Restore

HPOM backup and restore is enhanced. New backup scripts `opcbbackup_online` and `opcbbackup_offline` and restore scripts `opcrestore_online` and `opcrestore_offline` based on the Oracle Recovery Manager (RMAN) are introduced.

Enhanced CLIs

- | | | | |
|----------------------------|---------------------------|--------------------------|-------------------------|
| • <code>opcack</code> | • <code>opccfgupld</code> | • <code>opchbp</code> | • <code>opcnode</code> |
| • <code>opcagtdbcfg</code> | • <code>opccsa</code> | • <code>opchstdwn</code> | • <code>opcragt</code> |
| • <code>opccfguser</code> | • <code>opcdelmsg</code> | • <code>opclaygrp</code> | • <code>opctempl</code> |

For details about command line interface changes and enhancements, refer to the corresponding man pages.

Enhanced APIs

New functions in APIs:

- Configuration Stream Interface (CSI) is an extension of the Message Stream Interface (MSI) for synchronizing the configuration changes. CSI provides registration for the configuration changes to the internal (server processes, Java GUI) and external (API clients) configuration consumers. It can be used within the `opcif_open()` API. New interface types include:

`OPCSVIF_CFG_CHG_EVENTS`: enables registration for all configuration changes.

`OPCSVIF_CFG_CHG_EVENTS_GUI`: used with Java GUI to enable registration of events related to a specific operator.

- OPCDATA_CSI_STRING (int) is added to the `opcconn_get_capability()` and `opcconn_set_capability()` APIs. Returns the name of the client that opened a CSI with the `opcif_open()` call. Used to prevent this client to get back it's own configuration changes.
- `opcsync_inform_server()` is enhanced to inform the server and GUI processes of new configuration changes. The HPOM server and GUIs are kept up-to-date each time a change is performed.

Other Changes

HPOM contains these changes compared with HPOM 8.3x.

Installation of HPOM Management Server

New installation and configuration scripts, `ovinstall` and `ovoconfigure`, ensure fast and simple installation and configuration. The installation process now separates the software installation from the software configuration tasks, and break and re-entry points are available for easy customization and improved troubleshooting.

For detailed information about the prerequisites which must be met before installing and configuring HPOM, and the procedures themselves, refer to the *HPOM Installation Guide*.

Configuration Settings on the HPOM Management Server

The table below shows how configuration variables default values are changed with the HPOM 9.0x release in comparison with the 8.xx release. Note that these settings are not visible when using `ovconfget -ovrg server` if the default has not been changed or explicitly set.

Variable	HPOM 8.xx Default	HPOM 9.0x Default
OPC_HTTPS_MSG_FORWARD	FALSE	TRUE
OPC_NAMESRV_CACHE_SIZE	100	5000
OPC_NAMESRV_RETRIES	3	1
OPC_NAMESRV_MAX_TIME	unset	200
OPC_USE_LOWERCASE	FALSE	TRUE
OPCUIWWW_BULK_MODE	FALSE	TRUE
OPCUIWWW_NEW_MSG_NO_DB	FALSE	TRUE
OPC_JGUI_WEBBRW_APPL_RESULT	FALSE	TRUE
OPC_UPDATE_DUPLICATED_SEVERITY	NONE	LAST_MESSAGE
OPC_UPDATE_DUPLICATED_MSGTEXT	NONE	LAST_MESSAGE
OPC_OPCCFGDWN_ALL_INCLUDE_SELDIST_SERVICES	FALSE	TRUE
OPCRAGT_USE_THREADS	FALSE	TRUE
OPC_FORWM_MAX_BULK_SIZE	0	100
OPC_TTNS_TIMEOUT	0	300
OPC_MSG_BULK_INSERT_RATE	not supported	100

Java GUI Support for Web Browsers

The embedded web browser is no longer available with the Java GUI. The only valid browsers are browsers with ActiveX and external browsers. `web_browser_type` in `itoopec` also supports `activex`. Thus, the valid values are `external` and `activex`.

On Windows, a browser with ActiveX is the default browser. On Unix, only external browser is available. The valid values for the configuration variable `OPC_JGUI_INTERNBRW_DISABLED` are `ACTIVEX` and `NONE`.

Node Management

With this release of HPOM, nodenames must be unique. In previous product versions it was the combination of the nodename and network type which needed to be unique. You could have the same nodename for an IP-node and a non-IP node, for example, if the name-service was not accessible when the first message for the node arrived, and later it was accessible. HPOM 9.0x makes no difference in handling IP nodes and non-IP nodes (type "Other"). This is the same approach which was previously enforced with the `OPC_NEW_NAMERES` setting.

The handling of nodes for external events has also been changed. An external node of type "IP Name" also matches messages from non-IP nodes.

The external node type "IP Name" is changed to "Name" and the external nodes of type "Other" are converted to type "Name" during the upgrade.

The pattern matching of external nodes is now case-insensitive.

Event Correlation Services (ECS) Support

ECS provided as Correlation Composer is supported with HPOM 9.0x as follows:

- **ECS Process Config File Location**

The location of the configuration for the ECS process on the management server (`opcecm`) is moved to the shared disk. This avoids certain problems in HA cluster environments.

Old location: `/var/opt/OV/conf/OpC/mgmt_sv`

New location: `/var/opt/OV/shared/server/datafiles/policies/ec`

- **Enhanced functionality of the symbolic nodename `$MGMTSV`**

The symbolic nodename `$MGMTSV` can now be used in APIs and CLIs to:

- Assign and deassign ECS policies or policy groups containing ECS policies to `$MGMTSV`, for example:

```
# opcnode -[de]assign_pol node_name="\$MGMTSV" net_type=NETWORK_NO_NODE pol_type=ec
pol_name=<name> [ version=<ver> ]
```

- List assigned policies of `$MGMTSV`, for example:

```
# opcnode -list_ass_pols node_name="\$MGMTSV" net_type=NETWORK_NO_NODE
```

The calls to deploy policies (`opcragt -dist`) and to deploy data/fact stores (`ovocomposer`) are unchanged compared to HPOM 8.xx.

- **Verification Status of ECS Circuits**

In previous product versions, ECS circuits could not be deployed to an agent or the management server during the verification check, and were regarded as unverified. In HPOM 9.0x, the distinction between verified and unverified ECS circuits is dropped. It is expected that all ECS circuits are verified (checked

for syntax correctness). For unverified HPOM 8.xx circuits uploaded during the configuration upload to HPOM 9.0x, a warning containing the relevant policy name and circuit is printed by `opccfgupld`. As opposed to HPOM 8.xx, the data can be deployed with HPOM 9.0x.

Smart Plug-in (SPI) Support

To know about the supported SPI versions with HPOM 9.0x and for recent updates, see the support matrix at: <http://support.openview.hp.com/selfsolve/document/KM323488>

SPI DVD 2009 added support for HPOM 9.0x for the first time. This includes support for HP-UX and Linux operating systems (with a limited number of SPIs on Linux). The SPI versions earlier than SPI DVD 2009 cannot be installed on HPOM 9.0x.

The SPI DVD 2009 for HPOM 9.0x includes the following SPIs for Linux:

- SPI for Oracle
- SPI for SAP
- SPI for JBoss
- SPI for IBM DB2
- SPI SHS

NOTE The SPIs for Solaris will be provided with the SPI DVD 10.x. SPI DVD 10.x will also include support for the remaining SPIs for Linux.

You can migrate the HPOM 8.xx configuration data to HPOM 9.0x. This includes templates and instrumentation of SPIs from the 2008.1 SPI CD that are installed on HPOM 8.xx, downloaded from, and then uploaded to HPOM 9.0x. To migrate SPI from HPOM 8.xx to HPOM 9.0x, first upgrade the HP Operations management server to version 9.0x, and then migrate the SPIs from HPOM 8.xx to HPOM 9.0x. For more details, see the *Release Notes* of the respective SPI.

NOTE The existing Infrastructure SPI 1.0 is supported with HPOM 9.0x. The Infrastructure SPI DVD release cycle is separate from main stream SPI DVD. The Infrastructure SPI 1.6 release will be supported on Solaris 9.

The existing HPOM SPIs (from 2006.1 SPI CD and 2008.1 SPI CD) cannot be installed on HPOM 9.0x.

Integration with Other HP Software Solutions

HPOM 9.0x provides integrations with other HP Software solutions, such as Network Node Manager i, Business Availability Center, and Dependency Mapping Automation. For a complete list and more information, visit the Support web site: http://support.openview.hp.com/sc/integration_catalog.jsp

SiteScope 10.10

When using the HPOM SiteScope Adapter in conjunction with SiteScope 10.10 and newer versions, explicitly enable the creation of SiteScope group MG files, because it is not selected by default when SiteScope is installed. (See also the *SiteScope Release Notes*.) Enable the configuration files option in **Preferences -> General Settings -> Main Panel**. When upgrading from an earlier version of SiteScope that has this option selected, the MG configuration files are supported. The SiteScope discovery is not available, if the option is disabled.

Co-existence with Other HP Software Solutions

HPOM 9.0x can co-exist on the same system with the following HP Software products:

- HPOM Java GUI 9.0x
- HP Operations Agent 8.60
- HP Performance Agent 5.00
- HP Performance Manager 8.21
- Infrastructure SPI DVD 1.0

HPOM 9.0x cannot be installed on the same system with some HP Software products. The following HP Software products can be used with HPOM but must be installed on a remote system:

- SiteScope 10.10
- Network Node Manager i (NNMi) 8.xx

Obsolescence Announcements

This section lists the obsolete features of this release of HPOM.

NOTE This section applies for users that migrate to HPOM 9.01 from HPOM 8.xx.

Obsolete Java GUI Platforms

- HP-UX PA-RISC all versions
- HP-UX Itanium 11.23
- Sun Solaris 8 and 9
- Red Hat 8
- MacOS X 10.3 and lower versions

The HPOM Java GUI no longer supports the embedded browser capability.

Obsolete HPOM Agent Platforms

- HP MPE/iX
- HP-UX 10.20, 11.00, 11.22 (Itanium)
- Linux Kernel 2.2 and 2.4, all derivatives
- Microsoft Windows 2000 (all editions; unless there is an extended Microsoft support contract)
- Microsoft Windows 2003 without SP
- Microsoft Windows NT 4.0
- Microsoft Windows XP (SP1 and prior)
- Novell NetWare 4.x
- OpenVMS 7.3.1
- RedHat Enterprise Linux 2.1, 3.x
- Tru64 UNIX

NOTE HPOM 9.0x is delivered with the 8.60 agent version. HPOM 9.0x can communicate with other 8.x HTTPS agents as well.

Motif UI

The Admin Motif UI is obsolete. The Web-based Administration UI is used instead. For more information about the new Administration UI, see “Web-based Administration for HPOM” on page 3.

The operators Motif UI is obsolete; use the Java GUI instead.

Template Administrator

The template administrator user is obsolete as a part of a Motif UI functionality. You cannot use template administrator users to log in to the HPOM Administration UI. If you upload or create a template administrator user on HPOM, it is not used for HPOM Administration UI.

Instead of template administrator, use `ompolicy_adm` user to log in to the HPOM Administration UI or add a new HPOM Administration UI user and assign it to `ompolicy_adm` user group. An HPOM Administration UI user has rights to view and edit all policies. You should first log in as `admin` or `opc_adm` to the HPOM Administration UI, add a Policy administrator user, and assign that user the `ompolicy_adm` user group.

A utility is also provided to convert template administrator accounts into HPOM `ompolicy_adm` accounts. Refer to the *HP Operations Manager Administration UI Administration and Configuration Guide*, chapter “User Migration from HPOM 8.xx to AdminUI” for details.

DCE Communication

The DCE obsolescence includes the obsolescence of DCE-based agents, of communication to and from DCE-based agents, DCE-based message forwarding between management servers, escalating messages, the DCE security (the security library), the OpenAgent architecture, as well as Novell Netware agent, the RPC daemon agent, and Sun RPC agent. Also, the DCE RPC based communication on the HPOM management server has been changed to a queue and pipe mechanism.

HPOM Server to Server Configuration Upload with the `opcmgrdist` utility

Server to server configuration upload with the `opcmgrdist` utility is no longer supported. You can download config data on server A with `opccfgdwn`, copy the config data, for example, with secure copy (`scp`) to server B, and upload it there with `opccfgupld`.

Operator-initiated Message Escalation

The possibility to forward or escalate an HPOM message to another HPOM server by pressing the escalate button in the HPOM operational UIs is obsolete.

Obsolete Management Server Processes

The following HPOM processes are obsolete:

- ovoareqhdlr
- opccmm
- opcctlm
- opcdistm
- opcmgrdist
- opcmsgrd

libnspv Library

The libnspv library is deprecated. However, it is still present on the HP Operations management server for the backward compatibility. You can still use the integrations, applications or scripts linked to this library in the previous product versions.

Changed Control over HPOM Processes

The HPOM Control Manager (`opcctlm`) is obsolete. The control over HPOM processes is moved to the OV Control facility (the `ovcd` process). Some of Control Manager's functionality is moved to the HPOM Request Sender (`ovoareqsdr`). The HPOM processes can be controlled by the `ovc` and `opcsv` CLI, but no longer by `ovstart`, `ovstop` and `ovstatus` CLIs, because Network Node Manager no longer runs on the same HPOM management server system.

NNM Local Integration

NNM cannot be installed on the same system as HPOM, thus the local integration with NNM is obsolete. However, an integration package is provided with HPOM 9.0x to work remotely with NNM 7.xx and NNMi 8.xx. As a consequence of this, HPOM does not support integration with the `OV_PLATFORM` type applications, for example, `OV Applications` and `OV Services` are not used anymore.

Service Navigator Value Pack (SNVP)

No new version of SNVP is available with the HPOM 9.0x. Check the HP Dependency Mapping Automation software and HP Operations Manager i software as potential replacements.

Obsolete CLIs and CLI options

All CLIs provided by NNM are no longer available on the HPOM management server. Therefore CLIs such as `ovstart`, `ovstop`, `ovstatus`, `ovw`, `ovaddobj` no longer exist. Check your working procedures and scripts for NNM commands and make the adjustments, where appropriate. Other obsolete CLIs:

- `opc_backup`
- `opc_recover`
- `opcmgrdist`
- `opctmplrpt`
- `opcauddwn`
- `opccfgupld`: the `-ascii` option
- `opccfgupld`: the `-deloldtempl` option
- `opcmomchk`: the `-escalation` option
- `opcpwd`
- `opclie`
- `opcsvreg`
- `opcsvskm`
- `opctranm`
- `ovbackup.ovpl`
- `ovrestore.ovpl`

Obsolete Configuration Variables

- DCEMR_PROG
- DISTM_PROG
- OPC_CFG_KEY_TAB
- OPC_CFG_SEC_LEVEL
- OPC_COMM_PORT_DISTM
- OPC_DISABLE_EXT_DCE_SRV
- OPC_DOWNLOAD_TEMPL_INDIVIDUAL
- OPC_SKIP_DCE_FORWARDING
- OPC_FORWARD_MGR_DCE_QUEUE
- OPC_CHK_DCE_ADDR_MISMATCH
- OPC_FORWARD_MGR_DCE_PIPE
- OPC_COMM_LOOKUP_RPC_SRV
- OPC_COMM_PORT_RANGE
- OPC_HBP_USE_ALL_PROTOCOLS
- OPC_HPDC_CLIENT_DISC_TIME
- OPC_OPCCTLM_KILL_OPUIWWW
- OPC_OPCCTLM_START_OPSCVAM
- OPC_RESTART_COUNT
- OPC_RESTART_DELAY
- OPC_RESTART_PROCESS
- OPC_RESTART_TIMEFRAME
- OPC_SKIP_DCE_FORWARDING
- OPC_USE_DCE_FORWM
- OPC_TRANM_TIMEOUT
- OPC_MSGM_USE_GUI_THREAD
- OPC_COMM_REGISTER_RPC_SRV
- OPC_COMM_RPC_PORT_FILE
- OPC_DCE_TRC_OPTS
- OPC_MSG_FORW_CHECKALIVE_INTERVAL
- OPC_MSGFORW_BUFFERING

Obsolete APIs

- `opcsync_inform_user()`
- `opcmsg_escalate()`

Miscellaneous

- NIS+ is not supported as it is no longer available on RHEL, LDAP is used instead.
- ECS Designer is not supported, as it is not available on Linux.
- Expressions `<S>` and `<nS>`

The pattern-matching expressions `<S>` and `<nS>` used in templates are obsolete.

- Obsolete `itooprc` parameters
 - `which_browser`
 - `auto` and `manual` values for `web_browser_type`
 - `ice_proxy*`
 - `web_browser_html_appl_result`
- Obsolete values for configuration variable `OPC_JGUI_INTERNBW_DISABLED`
 - `EMBEDDED`
 - `BOTH`

Installation Notes

Installation requirements, as well as instructions for installing HPOM, are documented in the *HPOM Installation Guide*. The document file is included on the product's DVD media at:

/Documentation/InstallationGuide.pdf

After installation the document can be found at:

/opt/OV/www/htdocs/ito_doc/C/manuals/InstallationGuide.pdf

To check for recent updates or to verify that you are using the most recent edition, go to the Support web site.

HPOM 9.0x introduces a new approach to product installation and configuration. Installing and configuring the HPOM software on the management server are fast and easy procedures due to the HPOM installation and configuration scripts, `ovoinstall` and `ovoconfigure`, which guide you through the entire installation and configuration procedure.

For general installation requirements, see Chapter 2, “Management Server and Java GUI Installation Requirements.”

For detailed information about the prerequisites, which must be met before installing and configuring HPOM, and the procedures themselves, refer to the *HPOM Installation Guide*.

The `/README.txt` readme file describes the HPOM media DVD contents and layout and help you to locate products and documentation.

Hardware Requirements

Make sure that your system meets the following hardware requirements:

- The HTTPS Agent requires up to 300 MB of disk space, and up to 600 MB during the installation or upgrade.

Software Requirements

This section lists additional software requirements that are not documented in the HP support matrices. To check for recent updates on the HPOM management server and HTTPS agent supported operating systems, visit the following URL:

<http://support.openview.hp.com/selfsolve/document/KM323488>.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Management Server

For detailed information about the management server software requirements, refer to the *HPOM Installation Guide for the Management Server*.

Refer to Chapter 2 of the *HPOM Installation Guide for the Management Server* for detailed instructions on how to install HPOM, and to “Known Problems, Limitations, and Workarounds” on page 21 for known problems and their workarounds.

NOTE It can be very helpful to set the PATH variable to include the following HPOM directories on the management server: /opt/OV/bin, /opt/OV/bin/OpC, /opt/OV/nonOV/perl/a/bin and /opt/OV/bin/OpC/utills.

Likewise, export the MANPATH variable to access HPOM manual pages:

```
export MANPATH=$MANPATH:/opt/OV/man
```

Oracle Database

The supported Oracle database versions are 11g Release 1 with 11.1.0.7 Patch Set and 11g Release 2. These Oracle database versions must be installed to provide important enhancements in security and reliability.

The Oracle compatible parameter specifies the release with which Oracle must maintain compatibility to. By default, an HPOM installation sets the Oracle compatible parameter to 11.1.0.0.

IMPORTANT Install the Oracle binaries *before* the HPOM 9.xx installation, but *do not* create any kind of database, because HPOM requires specific settings.

Several prerequisite OS packages need to be installed for the Oracle database. You can find them at the following location:

- **For Oracle 11.1:** <http://www.oracle.com/technology/pub/articles/smiley-11gr1-install.html>

Required package versions (or later):

```
compat-libstdc++-33-3.2.3-61
elfutils-libelf-0.125-3.e15
elfutils-libelf-devel-0.125-3.e15
glibc-2.5-12
glibc-devel-2.5-12
glibc-common-2.5-12
gcc-4.1.1-52.e15
gcc-c++-4.1.1-52.e15
kernel-headers
libgcc-4.1.1-52.e15
libaio-0.3.106-3.2
libaio-devel-0.3.106-3.2
libstdc++-4.1.1-52.e15
libstdc++-devel-4.1.1-52.e15
lm_sensors-2.10.0-3.1
net-snmp-5.3.1-19.e15
net-snmp-utils-5.3.1-19.e15
unixODBC-2.2.11-7.1
unixODBC-devel-2.2.11-7.1
sysstat-7.0.0-3.e15
binutils-2.17.50.0.6-2.e15
make-3.81-1.1
```

- **For Oracle 11.2:** http://download.oracle.com/docs/cd/E11882_01/install.112/e10861/toc.htm

Required package versions (or later):

```
binutils-2.17.50.0.6
compat-libstdc++-33-3.2.3
compat-libstdc++-33-3.2.3 (32 bit)
elfutils-libelf-0.125
elfutils-libelf-devel-0.125
gcc-4.1.2
gcc-c++-4.1.2
glibc-2.5-24
glibc-2.5-24 (32 bit)
glibc-common-2.5
glibc-devel-2.5
glibc-devel-2.5 (32 bit)
libaio-0.3.106
libaio-0.3.106 (32 bit)
libaio-devel-0.3.106
libaio-devel-0.3.106 (32 bit)
libgcc-4.1.2
libgcc-4.1.2 (32 bit)
libstdc++-4.1.2
libstdc++-4.1.2 (32 bit)
libstdc++-devel 4.1.2
make-3.81
sysstat-7.0.2
unixODBC-2.2.11
unixODBC-2.2.11 (32 bit)
unixODBC-devel-2.2.11
unixODBC-devel-2.2.11 (32 bit)
```

Packages can be obtained from official Redhat site: <http://www.redhat.com>

By default, HPOM uses port 1521 for Oracle listener. If you want to use this port, please check that the ncube port is commented out in `/etc/services`:

```
# cat /etc/services |grep ncube
#ncube-lm 1521/tcp # nCube License Manager
#ncube-lm 1521/udp # nCube License Manager
```

For detailed information about installing and setting up the Oracle database, see the *HPOM Installation Guide*.

Java GUI

Before installing the HPOM Java GUI, ensure that your system meets the following hardware and software requirements described in this section.

HPOM bundles JRE for all supported MS Windows platforms. For all other platforms you must download the required Java Runtime.

Table 2 Support Matrix - Java GUI

Java Runtime	JRE	JRE Plug-in	JRE Plug-in	JRE Plug-in
TYPE	as Application	Internet Explorer 5.5, 6, 7	Safari 1.3.2	Mozilla 1.7
Windows 2000 Windows XP Windows 2003 Windows Vista	1.6.0_12	1.6.0_12	N/A	1.6.0_12
Windows 2003 for Itanium	N/A	1.6.0_12	N/A	1.6.0_12
Red Hat Enterprise Linux 5.2, 5.3, 5.4 Solaris 10	1.6.0_12	N/A	N/A	1.6.0_12
HP-UX Itanium 11.31	1.6.0_10	N/A	N/A	1.6.0_10
Mac Os	1.6.0_7	N/A	1.6.0_7	1.6.0_7

If the default JRE version installed with the operating system is not the same as the one required by HPOM, install the supported Java Runtime Environment JRE from the following location:

<http://www.hp.com/products1/unix/java/>

Set the location of the installed JRE directory to the JAVA_DIR environment variable, for example.:

```
export JAVA_DIR=/opt/OV/nonOV/jre/b
```

HTTPS Agents

HPOM 9.01 is delivered with HP Operations agent 8.60. HPOM 9.01 can communicate with other 8.xx HP Operations. For more information about the supported HP Operations agent versions, platforms, known problems and workarounds, refer to the *HP Operations Agent Release Notes* which can be found at the following location: <http://support.openview.hp.com/selfsolve/manuals>

As a prerequisite for the HP Operations agent installation, your system must meet operating system specific software and hardware requirements. Supported platforms and requirements can be found online at the following location: <http://support.openview.hp.com/selfsolve/document/KM323488>

IMPORTANT Make sure you have either REXEC, RSH, or SSH services enabled on the remote agent before you start the HPOM agent installation from the HPOM management server. Otherwise the agent installation fails.

NOTE During the installation, make sure that you select the right machine type for Linux RedHat AS 4 64-bit operating systems (the agent from the `linux/x86/linux26` directory must be used):

Platform Selector	Machine Type	OS Name
linux/x86/linux26	Intel/AMD x86 (HTTPS)	Linux 2.6

Known Installation Problems and Workarounds

Symptom QCCR1A95802

Wrong entry in `/etc/hosts` file after RHEL OS is installed from a template using VMware

If you have installed your RHEL system using VMware from a template, check the following line in your `/etc/hosts` file:

```
127.0.0.1      localhost.localdomain localhost
```

Sometimes, VMware template deployment changes this entry (adds a hostname within), which can cause problems during the HP Operations management server installation.

Solution

If this line is not like above, correct it before installing the HP Operations management server.

Symptom: Errors during uninstallation of some packages

At the management server uninstallation, the following errors may occur, if some product that depends on the same packages as the HP Operations management server is left on the system:

```
ERROR:      Error occurred while removing HPOvTomcatB package
            Please check /var/opt/OV/log/OpC/mgmt_sv/installation.log.error
for details
```

Solution

Use `skip` to continue uninstallation for every occurrence. For example:

```
[repeat,skip,back,exit,?] : skip
```

Symptom QCCR1A98812

Remote database configuration fails with **ORA-01450: maximum key length (6398) exceeded**

After the HPOM is installed and the database is created as a remote database, the database configuration fails with the following error:

```
Error opcdbinst(6722) : Database: ORA-01450: maximum key length (6398) exceeded <
(OpC50-15)
```

```
Aborting installation of HPOM tables in database. (OpC55-1)
```

```
ERROR:      Error occurred in the program opcdbinst during creation of the
            database tables.
```

Solution

Instead of the default block size of 8K for the database, use the block size of 16K as documented in the *HPOM Installation Guide*:

```
db_block_size 16384
```

IMPORTANT You cannot change the specified block size afterwards. If you use the default block size, you will need to drop the database and create it again with the correct `db_block_size`.

Migration from Previous Product Versions

If you have a previous version of HPOM installed on Solaris 8 or Solaris 9, HP-UX 11i v2 or 11i v3, you can migrate it to the HPOM on Linux 9.01. For details, see *HPOM Installation Guide*.

Known Problems, Limitations, and Workarounds

Management Server

Symptom QCCR1A89501

Policy group part of the `opctempl` and `opcpolicy` manpages is missing

The description of the policy group related options such as `-add_group`, `-del_group`, `-add_to_group` and other are missing in the `opctempl(1m)` and `opcpolicy(1m)` manpages.

Solution

See the usage output of `opctempl` and `opcpolicy`, which is up to date.

Symptom QCCR1A56839

Implications of `mgrconf/configsettings` being policies

Since `mgrconf` and `configsettings` are policies with HPOM 9.xx, they are disabled by `opctemplate -disable -all` and `ovpolicy -disable -all`. This can have unexpected implications. For example, running a status or an action from a management server fails, even if the server is the primary manager, unless the requesting server is configured as the default manager.

Symptom QCCR1A58840

While purging policies in MoM setup, `mgrconf` policies also get purged

When purging policies in a MoM setup, all the policies on the node are purged, including the `mgrconf` policy. Because the HPOM on Linux and the HPOM for Windows servers are in the MoM setup, you cannot switch the agent to the HPOM on Linux server if the `mgrconf` policy is purged.

Symptom QCCR1A95152

HPOM 8.xx reports may fail on HPOM 9.xx because of missing condition tables

If you upgrade HPOM 8.xx to HPOM 9.xx, you can use the HPOM 8.xx reports. However, HPOM 8.xx reports (copied or customized from HPOM 8.xx or current OV Reporter and OVPI report pack reports) may fail if they query the HPOM 9.xx database. This happens because some template and condition tables were obsolete with the HPOM 9.xx (`opc_monitor_cond`, `opc_trap_cond`, and `opc_cond`).

Solution

Update the HPOM 8.xx reports so that the condition from the `opc_monitor_cond`, `opc_trap_cond`, and `opc_cond` tables are not queried.

Symptom QCCR1A99570 Missing new Composer.eco on HPOM

There is an old `Composer.eco` file on the HPOM management server.

Solution

Update the Correlation Composer policy, as follows:

1. Remove existing policy:

```
# /opt/OV/bin/OpC/Utils/opcpolicy -remove pol_name="Correlation Composer" pol_type=ec
```

NOTE After removing this policy, node assignments are also removed.

2. Back up the existing Correlation Composer policy file:

```
# cd /var/opt/OV/share/tmp/OpC_appl/defaults/C/POLICIES/  
# cp 5e295388-e461-11dc-b7d0-00306ef38b73_circuit \  
5e295388-e461-11dc-b7d0-00306ef38b73_circuit.ORIG
```

3. Update the Correlation Composer policy file:

```
# cp /var/opt/OV/share/tmp/OpC_appl/defaults/C/TEMPLATES/EC/CIRCUITS/ecs_comp.eco \  
./5e295388-e461-11dc-b7d0-00306ef38b73_circuit
```

4. Upload the updated Correlation Composer policy:

```
# /opt/OV/bin/OpC/Utils/opcpolicy -upload \  
file=5e295388-e461-11dc-b7d0-00306ef38b73_header.xml mode=replace
```

5. Assign and deploy Correlation Composer policy to the management server and managed nodes by using the `opcnode` and `opcragt` commands.

Symptom QCCR1A96113 Installing local agent on active node in cluster environment failed

Installing local agent on active node in cluster environment failed because the root's password could not be read.

Solution

You can manually install local agent:

```
# /opt/OV/lbin/ovharg -monitor ov-server disable  
# /opt/OV/bin/OpC/agtinstall/inst.sh <node_name>  
# /opt/OV/lbin/ovharg -monitor ov-server enable
```

Symptom QCCR1A98561 The server processes cannot be started because the password of the Oracle user `opc_op` expired

With Oracle 11g, password aging is enabled by default and passwords expire in six months. If the password of the Oracle user `opc_op` expires, the HPOM processes are no longer able to connect to Oracle.

Solution

1. Change the password in the database and in the HPOM password file using the following command:

```
# /opt/OV/bin/OpC/opcdbpwd -set
```

2. Because of an Oracle defect (Bug 7462851) set the `opc_op` password manually.

IMPORTANT Be sure to use the same password as for the `/opt/OV/bin/OpC/opcdbpwd -set` command:

```
# su - oracle
$ sqlplus /nolog
SQL> connect / as sysdba
SQL> alter user opc_op identified by <password>;
SQL> exit
```

3. Update the Admin UI with the changed password using the following commands:

```
# /opt/OV/OMU/adminUI/adminui clean
# /opt/OV/OMU/adminUI/adminui password -u ovoidb -a -p <password>
```

Now you should be able to start the processes again.

4. Make sure that the processes that were started before changing the password can be restarted. Re-start the processes using the following commands:

```
# ovc -kill
# ovc -start
```

5. Change other Oracle passwords, for example, `opc_report`, `sys`, and `system` as follows:

```
# su - oracle
$ sqlplus /nolog
SQL> connect / as sysdba
SQL> alter user opc_report identified by <new-password>;
SQL> alter user system identified by <new-password>;
SQL> alter user sys identified by <new-password>;
SQL> exit
```

If you want to disable password aging, do the following:

```
# su - oracle
$ sqlplus /nolog
SQL> connect / as sysdba
SQL> ALTER PROFILE default LIMIT PASSWORD_LIFE_TIME UNLIMITED;
SQL> exit
```

For more information about Oracle password aging and password complexity, see the Oracle documentation.

Symptom QCCR1A97558

During server upgrade "unknown test operator" error appears, basic cluster environment

During server upgrade in the cluster environment, the following errors appear:

```
- Do you want to re-use existing HA resource group configuration [exit,back,?,y|n,"y"] ?
>
/opt/OV/lbin/ovharg[70]: /var/opt/OV/hacluster/ov-server/trace.log: unknown test operator
/opt/OV/lbin/ovharg[81]: /var/opt/OV/hacluster/ov-server/error.log: unknown test operator
```

Solution

These errors can be safely ignored.

Symptom QCCR1A57809**Templates are still assigned to physical nodes after changing name to Virtual Node**

When you run the `opc_node_change.pl` script after changing the virtual node name, the old virtual node name is not deleted. Consequently, policy assignments to the old virtual node are not changed. If you unassign policies from the new virtual node, they are still assigned to old virtual node, and are still distributed to the physical nodes.

Solution

Unassign manually policies from the old virtual node group, delete nodes from that group, and delete the group, using the `opcnode` command:

```
# /opt/OV/bin/OpC/Utils/opcnode -deassign_pol_group -node_name=<node_name> \
-net_type=<network_type> -pol_group=<policy_group_name>
# opcnode -deassign_node group_name=<nodegrp_name> node_name=<node_name> \
-net_type=<network_type>
# opcnode -del_group group_name=<nodegrp_name>
```

where `<nodegrp_name>` is the old virtual node name.

Symptom QCCR1A89492**The `opcnode -check` option does not check policies and policy groups****Solution**

For policies you can use the following command to perform a syntax check:

```
# /opt/OV/bin/OpC/Utils/opcpolicy -check <policy_data_file>
```

Policy groups should only be modified using the `opcpolicy` command line utility or through GUI so that no syntax check becomes necessary.

Symptom QCCR1A90865**Warning messages on the standard output and in `System.txt` during upload of HPOM 8.xx configuration:**

```
Warning - Platform missing (net/machine=1/17).
Warning - Platform missing (net/machine=1/41).
Warning - Platform missing (net/machine=1/40).
Object already available in database (opc_node_defaults: 1/43).
Warning - Platform missing (net/machine=1/27).
Object already available in database (opc_node_defaults: 1/44).
Warning - Platform missing (net/machine=1/6).
Object already available in database (opc_node_defaults: 1/49).
Object already available in database (opc_node_defaults: 1/0).
Warning - Platform missing (net/machine=1/38).
Object already available in database (opc_node_defaults: 1/47).
Warning - Platform missing (net/machine=1/11).
Object already available in database (opc_node_defaults: 1/45).
Object already available in database (opc_node_defaults: 5/20).
Warning - Platform missing (net/machine=1/26).
Warning - Platform missing (net/machine=1/9).
Warning - Platform missing (net/machine=1/8).
Warning - Platform missing (net/machine=1/10).
Object already available in database (opc_node_defaults: 1/50).
Warning: not all requested objects were processed.
```


Solution

The warning messages can be safely ignored. All warnings appear when DCE platforms are uploaded.

Symptom QCCR1A90937

During upgrade from HPOM 8.xx to 9.0x, opccfgupld on HPOM 9.0x aborts while processing template groups

This occurs on the HPOM 8.xx system when the configuration setting `OPC_DOWNLOAD_TEMPL_INDIVIDUAL` is set to `TRUE`. Several lines of output similar to the following are produced to `stderr` and to the `opccfgupld` logfile `/var/opt/OV/log/OpC/mgmt_sv/opccfgupld.log` on HPOM 9.0x before the program exits with 1: "Illegal value `OSSPI_SOL_NP_FileSystems_1` (function upload: templ group conversion)"

Any data that should have been uploaded after the template groups is skipped.

Solution

1. Check to see if the HPOM 8.xx setting for `OPC_DOWNLOAD_TEMPL_INDIVIDUAL` is set to `TRUE`:

```
# /opt/OV/bin/ovconfget -ovrg server opc OPC_DOWNLOAD_TEMPL_INDIVIDUAL
```

2. If yes, repeat the download on 8.xx with the setting changed to `FALSE`:

```
# /opt/OV/bin/ovconfchg -ovrg server -ns opc -set OPC_DOWNLOAD_TEMPL_INDIVIDUAL FALSE
# rm -rf <previous_download_dir>
# /opt/OV/bin/OpC/opccfgdwn <options_from_last_call> <previous_download_dir>
```

3. Copy the download directory to the HPOM 9.0x system and repeat the upload:

```
# /opt/OV/bin/OpC/opccfgupld -replace -subentity <further_options_from_last_call>
```

After that, the HPOM 9.0x database should be consistent again.

Symptom QCCR1A90622

Invalid network type for nodes of type `PATTERN_OTHER`.

After a node with the network type `PATTERN_OTHER` is added, its network type is set to `PATTERN_IP_NAME`.

Solution

This is expected behavior, as `PATTERN_OTHER` is internally mapped to `PATTERN_IP_NAME`. Keyword `PATTERN_OTHER` is deprecated. Use `PATTERN_IP_NAME` instead.

Symptom QCCR1A96746

Certificate request grant and add node functionality failing for AIX LPAR nodes

The add and grant functionality is failing for AIX LPAR nodes on AIX 5.3 and 6.1.

Solution

1. Manually add the node using the `opcnode` command. For example:

```
opcnode -add_node node_name=<nodename> net_type=NETWORK_IP group_name=linux
mach_type=MACH_BBC_AIX_PPC
```

2. Manually grant the certificate request using the following command:

```
# opccsa -grant <certificate request ID>
```

You can obtain CertID using the following command:

```
# opccsa -list_pending_cr
```

Symptom QCCR1A92899

Install of agent on a Linux node with the latest glibc version (2.9 and higher) fails.

Installation fails due to incorrect recognition of the glibc version (versions higher than 2.9). When using the latest version (2.10.1), the installation script incorrectly recognizes it as version 2.1 and exits, because version 2.1 is too old.

Symptom QCCR1A90155

There is no localized manual on the management server.

If you are logged in to the Chinese Java GUI and click *Operator's Guide* (PDF), you will get an error, because localized manuals are not yet available.

Solution

Use the English version of manual which is located on server: `/opt/OV/www/htdocs/ito_doc/C/manuals/`

Symptom QCCR1A93476

Get HBP error for node modified by `opcchgaddr`, although HBP is disabled

After changing node address using `opcchgaddr`, the following error displays in the browser, though HBP is disabled:

```
Node ovresx4-vm29.rose.hp.com is probably down. Contacting it with ping packages failed.  
(OpC40-436)
```

Solution

None.

Symptom QCCR1A90462

`opconn_cs_reset()` sometimes does not reset status message

It is possible that after calling `opconn_cs_reset()` API function the status message is not reset.

Solution

To ensure that you always get the correct message, call `opconn_cs_set()` with an empty string (not NULL!) as the 'message' parameter after calling `opconn_cs_reset()`.

Symptom QCCR1A90808

**System.txt: There is no server process active for address:
'https://localhost/com.hp.ov.agtrep.notificationreceiver/bbcrpcserver'**

This error message may be printed in `System.txt` every time the `ovconfchg` operation is executed.

Solution

If no policy of type `svcdisc` was deployed to an agent, the error message can be ignored.

Symptom QCCR1A89584

All policies can be assigned to `$MGMTSV`

Currently, there is no type checking when assigning policies to the management server using the `$MGMTSV` keyword with `opcnode` command-line utility. Only event correlation policies are effective when deployed to management server, although there are no adverse effects if policies of other types are deployed as well. It may, however, lead to confusion.

Solution

Make sure that only event correlation type policies are assigned to the management server when using `$MGMTSV` keyword with `opcnode -assign_pol`. Any types of policies can be assigned to the HP Operations agent running on the management server machine. For this assignment, use the local node name instead of the `$MGMTSV` keyword.

Symptom QCCR1A90655

DBID is not correctly stored during backup when using a remote database

This code identifies the HPOM Oracle database, and may be needed in some cases for manual database restoration.

Solution

To get the DBID code, log in to the database as dba and run the following query:

```
"select dbid from v$database;"
```

Symptom QCCR1A89335

System.txt: Certificate request with the id '<some_id>' could not be found in the queue.

The following warning messages appear in `System.txt` if you automatically add a node to the HPOM database right after granting the certificate; for example, when using `opccsa -grant -add_node <hostname/CertreqId>`:

```
0: INF: Tue Mar 10 01:18:17 2009: opccsad (29908/3): Deleting certificate request with id '0fbef264-9322-7538-0203-d2dd529263df'.
```

```
0: WRN: Tue Mar 10 01:18:17 2009: opccsad (29908/3): Certificate request with id '0fbef264-9322-7538-0203-d2dd529263df' could not be found in the queue.
```

Solution

The warning messages in `System.txt` can be safely ignored

Symptom QCCR1A90244

OVO or ITO string can still be present

In API manpages and sql reports, some strings may contain old product names: OVO, ITO, or VPO.

Solution

Read these strings as “HPOM”.

Symptom QCCR1A94948

Errors during configuration upload at the end of create_nnm_appls.sh scripts

When script `create_nnm_appls.sh` finished an error is logged:

```
Character set of download data not compatible with installed set.
```

Solution

1. Edit text file `/tmp/NNMiAppInst/GenNode/en_US.UTF-8/GenNode.idx` and replace line

```
CHARACTER_SET
```

with

```
CHARACTER_SET <character set of your locale>
```

Supported values for character set are ISO88591 or UTF8.

For example: `CHARACTER_SET UTF8`

2. Use the following command to determine character set used by your locale:

```
# locale -k charmap
```

3. Perform configuration upload:

```
# /opt/OV/bin/OpC/opccfgupld -replace -subentity /tmp/NNMiAppInst/GenNode
```

Symptom QCCR1A93476

Get HBP error for node modified by opcchgaddr, although HBP is disabled

After changing node address using `opcchgaddr`, the following error displays in the browser, though heartbeat polling (HBP) is disabled:

```
Node ovresx4-vm29.rose.hp.com is probably down. Contacting it with ping packages failed.  
(OpC40-436)
```

Solution

None.

Symptom QCCR1A96972

Utility `opc_chg_ec` does not list any event correlation policies

When running the `opc_chg_ec -list` command, event correlation policies are not listed and several errors occur.

Due to changes in policy handling and modifications to the HPOM database, this tool is no longer usable and has become obsolete.

Solution

Circuit name modification can be achieved by editing the corresponding policy body. The list of all event correlation policies can be retrieved using the `opcpolicy` command line tool.

To obtain the list of all EC policies, run the following command:

```
# opcpolicy -list_pols pol_type=Event_Correlation
```

Symptom QCCR1A95948

NNMi group is not visible by default for user `opc_adm`

Responsibilities for the message group NNMi are not configured by default for user `opc_adm`.

Solution

Add user responsibilities manually by running the following command:

```
/opt/OV/bin/OpC/opccfguser -v -assign_respons_user -user opc_adm -node_group \  
-list hp_ux solaris -msg_group -list NNMi
```

Symptom QCCR1A59453

opctrapi reported as not running since NNM is no longer on the management server

The standard SNMP policy is deployed to the management server by default. However, `opctrapi` does not run because NNM is no longer on the same system as the management server. The following error occurs:

```
Error msg: "Can't connect to OV daemon 'PMD' to open SNMP session:  
connect failed"
```

Solution

To eliminate this error, set the `SNMP_SESSION_MODE` variable:

```
# ovconfchg -ns eaagt -set SNMP_SESSION_MODE NO_TRAPD
```

Symptom QCCR1A98151

ovoinstall: HPOvOSiS post-install issues

HPOvOSiS post-installation steps fail because the `opcsvc` process is not running and the perl version is incorrect.

Solution

After installing the management server, run the following command:

```
# /opt/OV/bin/OpC/Utils/mof_cfgupld.sh \  
/var/opt/OV/share/tmp/OpC_appl/sitescope/C/SERVICEMODEL/DiscoverSiteScope.mof
```

Symptom QCCR1A91821

HP Performance Manager tools executed on another HP Performance Manager server require clean-up before installing HP Performance Manager integration

After installing new version of HP Performance Manager or upgrading it, the old HP Performance Manager server name is still used for HP Performance Manager. The problem is that the HP Performance Manager installation script fails to change the HP Performance Manager server name in the database:

```
/opt/OV/contrib/OpC/OVPM/install_OVPM.sh <new OVPM server>:8081
```

Solution

Before installing a new HP Performance Manager server on the HPOM management server, remove all the HP Performance Manager policies and tools. For example:

```
/opt/OV/bin/OpC/opcappl -del_app app_name="OVPM Global History"  
/opt/OV/bin/OpC/opcappl -del_app app_name="OVPM HTML contrib"  
/opt/OV/bin/ovconfchg -ovrg server -ns opc -clear OPC_OVPM_GRAPH
```

Symptom QCCR1A94498

How to configure HP Performance Manager if you didn't do it during installation

Solution

If you didn't install HP Performance Manager during the HPOM installation and you want to install it later, run the following command:

```
# /opt/OV/contrib/OpC/OVPM/install_OVPM.sh <nodename>:<port>
```

For example:

```
# install_OVPM.sh elisa.deu.hp.com:8081
```

Symptom QCCR1A97123

When PM is installed together with HPOM server "ovpm stop" shouldn't stop ovtomcatB process

When you install HP Performance Manager 8.21 on the system where HPOM server is installed and stop the ovpm process using the /opt/OV/bin/ovpm stop command, also the ovtomcatB process is stopped. When ovtomcatB is not running, the web access to the HPOM management server is not possible and you cannot browse HPOM html manpages, manuals, Java GUI launcher, etc.

Solution

None.

Symptom QCCR1A91292

stacktrace -all does not check /var/opt/OV/share/tmp/OpC/mgmt_sv/core which is a common location for core files on HPOM 9.0x.

Solution

After running stacktrace -all, run stacktrace again and specifically indicate this location:

```
/opt/OV/contrib/OpC/stacktrace /var/opt/OV/share/tmp/OpC/mgmt_sv/core
```

Symptom QCCR1A95630

Deployment of PA on local node (mgmt sv) fails on HPOM server

The HPOM server which handles subagent installation (`opcbbcdist`) is stopped when PA installation script that is running on the node calls `ovc -kill`. Deployment of PA on local node fails, as HPOM server is stopped.

Solution

Install the subagent manually and then call `opcragt -subagent -active` to mark the subagent as installed. For example:

```
# opcragt -subagent -active PA_Deploy_HP <nodename>
```

Symptom QCCR1A96745

ovoremove fails to remove HPOvXpl because of dependencies to HPOvLczC, HPOvLces, HPOvLcko, HPOvLcja

`ovoremove` fails when removing `HPOvXpl` with the following error:

```
HPOvSecCo      (6.20.050) . . . . Removed
HPOvXpl        (6.20.054) . . . . FAILED
ERROR:         Error occurred while removing HPOvXpl package
Please check /var/opt/OV/log/OpC/mgmt_sv/installation.log.error for details.
```

Solution

Ignore this error by selecting `skip`. After `ovoremove` finishes, remove the packages manually if they are not needed by other products. Use the following command:

```
# rpm -e HPOvXpl HPOvLczC HPOvLces HPOvLcko HPOvLcja
```

Symptom QCCR1A90795

SiteScope tools are not shown in Java GUI for any operator

The SiteScope integration uploads series of tools to the HPOM database, but these tools are not assigned by default to any operator, so these tools are not shown in the Java GUI.

Solution

Manually assign the SiteScope tools to the operators using the `opccfguser` command or Administration GUI. See the `opccfguser(1m)` man page for more information.

Symptom QCCR1A96583

The maximum length for a node name may vary.

While the database accepts a maximum of 2048 characters for a given fully qualified domain name (FQDN), consider that there may be limitations on the DNS server, the operating system level, or other programs that may cause HPOM not to function properly with these nodes.

Solution

FQDNs should not exceed 256 characters. If they do, it may be helpful to add an `IP/nodename` entry in the `/etc/hosts` file.

Symptom QCCR1A90167

Non IP Node gets resolved if name is in DNS

When you try to add a non-IP node that is registered in the DNS, its network type is changed from `OTHER` to `IP` and you get a warning. The result is that the non-IP node has an IP network type.

For example:

```
# /opt/OV/bin/OpC/Utils/opcnode -add_node node_name=ovruxt62.rose.hp.com \  
net_type=NETWORK_OTHER mach_type=MACH_BBC_OTHER_NON_IP group_name=hp_ux layout_group=
```

Warning: Mismatch between node name and IP address (according to the DNS)
Please check to which IP address the hostname is resolved
and if that IP is resolved back to the original hostname.

Operation successfully completed.

Checking with `opcnode -list_nodes` shows that it was added as an IP node with the
MACH_BBC_OTHER_NON_IP platform:

```
# /opt/OV/bin/OpC/Utils/opcnode -list_nodes node_list=ovruxt62.rose.hp.com
```

List of all Nodes in the HPOM database:

```
=====  
Name           = ovruxt62.rose.hp.com  
Label          =  
IP-Address     = 15.8.156.145  
Network Type  = NETWORK_IP  
Machine Type  = MACH_BBC_OTHER_NON_IP  
Comm Type     = COMM_BBC  
DHCP enabled  = no (0x22)  
=====
```

Solution

It is not possible to add an IP node (a node that is resolvable and has an IP address) as non-IP node. Change the invalid platform from `non_ip/other/other` using `opcnode -chg_machtype`.

For example:

```
# /opt/OV/bin/OpC/Utils/opcnode -chg_machtype node_name=ovruxt62.rose.hp.com \  
net_type=NETWORK_IP mach_type=MACH_BBC_IP
```

Symptom QCCR1A97290

If Oracle service (`$ORACLE_HOME/network/admin/listener.ora`) is disabled, the Admin UI cannot connect to the HPOM server

If you disable the Oracle service by modifying `$ORACLE_HOME/network/admin/listener.ora` using the OvProtect utility, Administration UI will not be able to connect to your management server.

Solution

Do not disable the Oracle service using the OvProtect utility.

Symptom QCCR1A92949

Non-IP Node gets resolved if name is in DNS

When creating a non-IP node, its name is registered in the DNS. Though the node is created, it overwrites the network type from `OTHER` to `IP`. The result is a non-IP node with machine type `NON_IP` and network type `IP`. The following exception occurs:

Mismatch between node name and IP address (according to the DNS) Please check to which IP address the hostname is resolved and if that IP is resolved back to the original hostname.

Solution

None.

Symptom QCCR1A92537
Cannot open pipe oprtjnitp

After installation of HPOM, the following error is seen in System.txt:

```
0: ERR: Fri May 15 19:03:23 2009: opcdispn (15894/1078278464): [mpisv.c:816]: Cannot open pipe
/var/opt/OV/share/tmp/OpC/mgmt_sv/oprtjnitp. open(2) failed. No such device or address (OpC40-616)
```

Solution

None.

Symptom QCCR1A99535
README.txt on DVD not updated for HPOM 9.02

README.txt on DVD contains an outdated information. For example, the packages have SPARC extension instead of DEPOT, Catalogs folder is not mentioned though it exists on the DVD, and xml files are mentioned though they are not a part of DVD.

Solution

You can safely ignore this problem.

Symptom QCCR1A97498
PAM Java GUI login with Kerberos authentication module does not work on systems with Solaris 10 update 4 or higher

Solution

None.

Symptom QCCR1A92857
OMU needs to be replaced with OML in license mappings

There are occurrences of the product name OMU instead of OML in license mappings.

Solution

Read OMU occurrences as OML.

Java GUI

Symptom QCCR1A55228
At Java UI exit or log-off an error message appears in the console

When exiting or logging off from the Java UI an error message similar to this is printed in the console:

```
ERROR MSG, 7:42:47 AM, com.hp.ov.it.comm.OvEmbHttpClient:
https status - InternalServerError:text/html,
Message = HTTP/1.1 500 Internal Server Error
Date: Wed, 11 May 2005 05:41:57 GMT
Transfer-Encoding: chunked
Server: BBC 05.20.010; opcuihttps 01.00.000
senderid: e6979118-aca1-750b-1f6a-de6eb9cfe391
Cache-Control: no-cache
Content-Type: text/html
```

Solution

The error message can be safely ignored.

Symptom QCCR1A103706

Unable to connect more than 10 JAVA client HTTPS connections to OML Server

When trying to connect more than ten Java GUI clients to the management server by using the secure HTTPS connection (opcuihttps), an error occurs. By default, only ten Java GUI clients are allowed to connect the management server by using a secure HTTPS connection.

Solution

To allow more Java GUI clients to connect to the management server by using the secure connection, you can use the following settings in the `/etc/xinetd.d/ito-e-gui` file (the changed values are: `per_source`, `instances`, and `cps`):

```
service ito-e-gui
{
    flags            = REUSE
    socket_type      = stream
    wait            = no
    user            = root
    server          = /opt/OV/bin/OpC/opcuiwww.sh
    log_on_failure  += USERID
    disable         = no
    per_source      = UNLIMITED
    instances       = UNLIMITED
    cps             = 50 1
}
```

In order for these changes to take effect, update `xinetd` by using the following command:

```
# /etc/init.d/xinetd reload
```

Symptom QCCR1A97287 opcuihttps multiple coredumps

Process `opcuihttps` sometimes core dumps when stopped. Consequently, Java GUI cannot connect through the secure communication layer (HTTPS).

Solution

In case of a core dump, start the `opcuihttps` process manually.

Symptom QCCR1A57461

Wrong cursor shape after resizing Windows/Dialogs

When using the HP One Voice or Metal look and feel, the cursor stays in resizing shape when it is inside the window or dialog, after quickly resizing windows or dialogs and releasing the mouse button. This can be visible:

- In windows: when the cursor is on the title bar or on menu bar.
- In dialogs: in the whole dialog.

Solution

Use a different look and feel.

Symptom QCCR1A97439

Problem with ITO_OP shared folder on MGMT server

Java GUI configuration files (itooprc, itoopbrw and the console session setting files) cannot be accessed by the Global Setting mechanism, if they are shared through the URL location used by the Tomcat (for example, `http://<mgmt_srv>:3443/ITO_OP`). Thus, the Global Settings mechanism gets unusable.

Solution

Put Java GUI configuration files on some location which is not shared by the Tomcat.

Symptom QCCR1A56713

No notification about error with https_only enabled

When variable `https_only` is set to "yes" in `ito_op.bat` and secure connection cannot be established, the user is not notified, but the login dialog appears again.

Solution

Check the console for an error message.

Symptom QCCR1A57053

Read-only messages are not entirely correctly handled when using Java GUI as opc_adm

When read-only messages (with an R flag set) are selected together with normal messages, the following actions can be done: acknowledge, unacknowledge, own, disown, unbuffer, running actions, adding annotations.

This is a defect, it should not be possible to do anything with read-only messages. These problems occur only with the `opc_adm` operator and some happen only with bulk mode disabled (`OPCUIWWW_BULK_MODE=FALSE`).

Solution

Use a non-admin operator (for example, `opc_op`) to perform the required tasks.

Symptom QCCR1A57332

Key accelerator feature breaks some default Java key assignments

Some of the default Java key assignments do not work due to the way key accelerators are implemented in Java GUI.

Solution

None.

Symptom QCCR1A91381

Use of external web browser for help page is not saved to itooprc

In the preferences dialog box, a checkbox can be set to use an external web browser for the online help. The setting is not stored to `itooprc` and thus lost between Java UI sessions. It also does not apply to the current session.

Solution

Add following line manually to the `itooprc` file (located in the home directory of the user who activated the Java GUI and clicked on the OK button in the Preferences dialog):

```
ext_web_help true
```

Symptom QCCR1A58168

Java GUI should start if TNS_ADMIN is in use without any customization

If you choose to use a different folder for storing the `tnsnames.ora` file, you may have problems when trying to run Java GUI.

Solution

1. Modify the `/etc/xinetd.d/ito-e-gui` file to start `opcuiwww` by using the `opcuiwww.sh` script:

```
service ito-e-gui
{
    flags          = REUSE
    socket_type    = stream
    wait          = no
    user          = root
    server        = /opt/OV/bin/OpC/opcuiwww.sh
    log_on_failure += USERID
    disable       = no
}
```

2. Edit the `/opt/OV/bin/OpC/opcuiwww.sh` file to export the `TNS_ADMIN` variable at the beginning:

```
# export TNS_ADMIN=<alternate location>
```

3. Restart `xinetd`:

```
# /etc/init.d/xinetd restart
```

Symptom QCCR1A58386

OPC_MAX_JAVA_GUI parameter has no effect

The `OPC_MAX_JAVA_GUI` parameter does not limit the number of simultaneous Java GUI connections when specified.

Solution

Use the DoS features of `opcuiwww` to limit number of simultaneous Java GUI connections.

Symptom QCCR1A91542

Exception when exiting JGUI

When Java GUI is closed, the following exception appears in the console:

```
# ERROR MSG, 1:54:34 PM, com.hp.ov.it.comm.OvEmbHttpClient:
https status - InternalServerError:text/html, Message = Opcuiwww socket error while reading
ERROR MSG, 1:54:34 PM, com.hp.ov.it.ui.OvEmbApplet:
java.io.EOFException
There was a problem closing the communication link to the server.
```

Solution

Ignore the message.

Symptom QCCR1A97517

JGUI freezes when try to export message on detached window

Action for exporting messages can cause sporadic deadlocks, when called from detached window. In case of a deadlock, Java GUI becomes unusable.

Solution

None.

Limitation

Due to the Lcore limitations, the number of nodes per one HP Operations management server is limited to 1000. This limitation will be eliminated with the next HP Operations agent patch.

HP Reporter 3.80

HPOM on Linux supports HP Reporter 3.80. Consider that the HP Reporter version used with HPOM on Linux is the same as the version used with HPOM for UNIX 9.00. Thus, reports and documentation provided with this HP Reporter version mention only HPOM for UNIX without any mention of HPOM on Linux. You can safely use all the advantages of HP Reporter 3.80 with HPOM on Linux, even though HPOM on Linux is not specifically mentioned.

Documentation Updates

The following new or updated user documentation is available:

- *HPOM MessageStorm Detection whitepaper*

Documentation Errata

The following items are listed incorrectly in the documentation.

LOCATION	<i>HPOM Administrator's Reference</i> , Edition 1, page 418
ERROR	Manual Recovery of the HPOM Database In some cases, the database is damaged in such a way that it cannot be automatically recovered by HPOM scripts. These cases may also include either a loss of one or more <code>controlfile</code> copies or <code>SPFILE</code> . However, HPOM backup scripts keep separate copies of these files in the database backup folders.
CORRECTION	Manual Recovery of the HPOM Database For a local database, the HPOM restore scripts are able to restore a database backup to the state of the backup even if control files or the complete database are missing. For a remote database (also if the database was on a different system when the backup was taken, like in a decoupled cluster setup), the database may be damaged in such a way that it cannot be automatically recovered by HPOM scripts. These cases may also include either a loss of one or more <code>controlfile</code> copies or <code>SPFILE</code> . However, the HPOM scripts keep separate the copies of these files in the database backup folders.
LOCATION	<i>HPOM Administrator's Reference</i> , Edition 1, page 430–436
ERROR	HPOM is stated as a valid category for the <code>ovolicense</code> tool.
CORRECTION	Use OMU instead of HPOM as a category with the <code>ovolicense</code> tool.

LOCATION	<i>HPOM Installation Guide for the Management Server</i> , Edition 2, page 123, step 7
ERROR	<p><i>Optional:</i> Configure additional user rights on the database server. If you want to use the <code>mondbfile</code> policy (template) and the <code>opc_odc</code> tool, enter the following:</p>
CORRECTION	<pre>create role opc_monitorer; grant select on v_\$datafile to opc_monitorer; grant select on v_\$log to opc_monitorer; grant select on v_\$logfile to opc_monitorer;</pre> <p><i>Optional:</i> Configure additional user rights on the database server.</p> <p>If you want to use the <code>mondbfile</code> policy (template), the <code>opc_odc</code> tool, and the HPOM data backup on the management server, type the following:</p> <pre>create role opc_monitorer; grant select on v_\$datafile to opc_monitorer; grant select on v_\$log to opc_monitorer; grant select on v_\$logfile to opc_monitorer; grant select on v_\$database to opc_monitorer; grant select on v_\$controlfile to opc_monitorer;</pre>
LOCATION	<i>HPOM Installation Guide for the Management Server</i> , Edition 2
ERROR	<p>Inconsistent usage of the RHEL supported platforms. (Version 5.0 is stated on the front page and version 5.3 is mentioned on pages 213 and 228.)</p>
CORRECTION	<p>The correct RHEL versions supported with HPOM 9.01 are 5.2 and 5.3. For the list of supported operating systems, see the HP support matrices at: http://support.openview.hp.com/selfsolve/document/KM323488.</p>

LOCATION	<i>HPOM Installation Guide for the Management Server</i> , Edition 2, page 128
ERROR	The Installing and Configuring HPOM with a Remote/Manual Oracle Database procedure should be updated as follows:
CORRECTION	<p>To install and configure HPOM with a remote/manual Oracle Database, follow these steps:</p> <ol style="list-style-type: none"> 1. Install and configure the HP Operations management server software as described in “Installing and Configuring the HPOM Software on the Management Server” on page 80. <ul style="list-style-type: none"> During the installation procedure, make sure to follow these steps: <ol style="list-style-type: none"> a. When the <code>ovoinstall</code> script asks you whether you want to continue with the server configuration, leave the <code>ovoinstall</code> window open, and in another window, as the <code>root</code> user, install the latest HP Operations management server patch. b. In this same window, type y, and then press Enter to continue with the server configuration. <ul style="list-style-type: none"> During the configuration procedure, make sure to follow these steps: <ol style="list-style-type: none"> a. When the <code>ovoconfigure</code> script asks you whether you want to set the database manually, leave the <code>ovoconfigure</code> window open, and in another window, as the <code>root</code> user, export <code>ORACLE_HOME</code>, <code>ORACLE_SID</code>, <code>LANG</code>, and <code>LC_ALL</code> (for an appropriate <code>LANG</code> value, see the <i>HPOM Administrator’s Reference</i>). b. In this same window, copy the following Net files from the Oracle Database server to the HP Operations management server: <ul style="list-style-type: none"> • <code>\$ORACLE_HOME/network/admin/sqlnet.ora</code> • <code>\$ORACLE_HOME/network/admin/tnsnames.ora</code> • <code>\$ORACLE_HOME/network/admin/tnsnnav.ora</code> <p>These files are required on the database server and the HP Operations management server. When you copy the files to the HP Operations management server, check that the directory paths point to the correct locations, and modify them if necessary.</p> <p>NOTE: The <code>tnsnnav.ora</code> and <code>sqlnet.ora</code> files are optional. If you configured these files on the database server, you should also configure them on the HP Operations management server.</p> <ol style="list-style-type: none"> 2. Return to the <code>ovoconfigure</code> window. Type y, and then press Enter to configure the database. <ul style="list-style-type: none"> NOTE: This step can be done manually by using <code>opcdbsetup -p</code>. 3. <i>Optional:</i> If you configured additional user rights on the database server during the process of configuring users, passwords, and rights manually, you can run <code>/opt/OV/contrib/OpC/opc_odc</code> to verify the database setup (the log file is in <code>/tmp/opc_odc.log</code>).
LOCATION	<i>HPOM Installation Guide for the Management Server</i> , Edition 1
ERROR	The Migrating HPOM chapter is missing.
CORRECTION	The Migrating HPOM chapter is added.

Local Language Support

The HPOM 9.0x is not yet localized. However, it can be used in multilingual environments.

Certified Encoding and Character Sets on HPOM Management Servers

Certified encoding and character sets need to be set for the HPOM management server and Oracle database host systems.

- Encoding HPOM Node Character Set: UTF-8
- Oracle Database Code Set: AL32UTF8
- Linux Language Variable LANG:
 - English: en_US.UTF-8, en_GB.UTF-8
 - Spanish: es_ES.UTF-8
 - Japanese: ja_JP.UTF-8
 - Korean: ko_KR.UTF-8
 - Simplified Chinese: zh_CN.UTF-8

Other locales are also supported, for example, German and French. For information about supported character sets, refer to the *HPOM Administrator's Reference*. Note, that this HPOM release is not yet localized, but can be used in multilingual environments.

IMPORTANT UTF-8 is the only encoding supported by the HPOM database.

HP Software Support

You can visit the HP Software support web site at:

www.hp.com/go/hpsoftwaresupport

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts

- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require an active support contract. To find more information about support access levels, go to the following URL:

http://support.openview.hp.com/new_access_levels.jsp

To register for an HP Passport ID, go to the following URL:

<http://h20229.www2.hp.com/passport-registration.html>

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