HP OpenView Performance Manager

for the HP-UX, Solaris, and Windows operating systems

Release Notes

Software version: 6.01 / August 2006

OVPM 6.01 HP-UX: **B7490-15225**

OVPM 6.01 11.23 IA: **B7490-15226**

OVPM 6.01 Solaris: B7490-15227

OVPM 6.01 Windows: **B7490-15228**

This document provides an overview of the changes made to OpenView Performance Manager (OVPM) for the 6.01 release. It contains important information not included in the manuals or online Help.

Announcements

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Announcements

OpenView Performance Manager is copyrighted and licensed by Hewlett-Packard Development Company, L.P. Please refer to the licensing agreements on the installation media.

- This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)
- This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)
- This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

Throughout this document, <Install_Dir> will be used to refer to the directory where the OVPM product is installed. On HP-UX and Solaris systems this will be /opt/OV. On Windows systems, the default install directory is C:\Program Files\HP OpenView although this can be changed when the product is first installed.

<Data_Dir> will be used to refer to the directory where the OVPM product has been
instructed to place its data files. On HP-UX and Solaris systems, this will be /var/opt/OV. On
Windows systems, the default data directory is C:\Program Files\HP OpenView\data
although this can be changed when the product is first installed.

What's New in OVPM 6.0.1?

- **New Tomcat**: Tomcat is the application server provided by the Apache Software Foundation. It runs as host for the OVPM server software. For previous releases we were installing and using Tomcat in the default location and using the default port numbers. This occasionally caused problems when users wanted to run a different version of Tomcat on the same system.
 - Now OpenView products are beginning to use a common version of Tomcat that is installed inside the HP OpenView directory structure. Unused ports are chosen when this package is installed in order to avoid port conflicts. OVPM users should see no external changes except that the Tomcat status files will be in a different directory. See the OVPM Administrator Guide for details.
- Requires Java Plug-in 1.4.2 or later: Several new features in the Java User Interface and in Java Graphs now rely on capabilities that are not present in the earlier versions of Java. For this reason, you will be prompted to download the 1.4.2 version of the Java plug-in if you don't already have this version or a later one on your system. On Windows clients, this can be fairly automatic if you have an internet connection available. On other clients this can be a manual step.

• Planner - A forecasting tool: The Planner function is new. Planner uses statistical trending methods to predict how the values of a metric might behave in the future. Forecast graphs can be produced for any numeric metric that OVPM can access providing that it presents a series of values over time. You should be able to forecast metrics from OVPA, OVO-EPC, OVIS, Reporter and Generic Databases once they are made available to OVPM.

With this release, you will see a new tab named "Planner" added to both the Web Forms and the Java User Interfaces. Select this tab to access the Planner functionality.

Online Help for the Planner is provided to assist you in understanding the forecast graphs. This web page can be accessed from the OVPM home page, "Table of Contents", "Understanding Forecast Graphs" link and from the Help page for Java Graphs.

- **Flat File Data Source**: Using the new flat file data source, you can read metrics from simple text files providing they follow a few formatting rules. The formatting rules are designed to allow data exported from a variety of tools to be used as input to OVPM. (Comma Separated Values (CSV) files are one example of an acceptable file format.)
- Cancel graphs drawn from the Java UI: There is now support to cancel a graph request that has been initiated using the OVPM Java User Interface. If a request is taking too long to complete, the request can be cancelled by clicking the Cancel button or closing the window on the graph progress window. Previously, the progress window would close but the servlet would continue to service the graph request. Note that this feature is currently only available with graphs and tables drawn from the java interface.

This feature requires that cookies be enabled on the client browser. A client session times out after 30 minutes of inactivity (no requests pending from the client.) If a session times out, the user will need to simply draw another graph, refresh the browser or reconnect so that a session gets created again.

- **Improved printing of Java Graphs**: Printing a Java graph will now bring up a Print Preview screen. Using this screen you can see what the printed graph will look like. The graphs are now automatically scaled to fit the paper regardless of their size on the client's screen. The Print Preview screen allows you to select different orientations (portrait or landscape), paper sizes, and print resolutions in order to optimize the final print image.
- **Export from java graph or table**: A new capability has been added to export data from a Java Graph or Java Table into a local file or new web browser window. You can access this function quickly by clicking on a new "Export" button at the top of a Java Graph or Java table or by executing the "File / Export" menu item. The export function is not available for HTML graphs or tables.

Unlike the Java Graph drill-down function, the export function does not go back to the

OVPM server for its data. As a consequence, you can't export data for different metrics than are in your original graph or table. You can't specify a different granularity (Points Every value) or date range and you are limited in the format choices when you export data.

On the other hand, since export just reformats the existing data in a graph or table, it can be faster to execute than drill-down and you are guaranteed to get exactly the data values that were used in the original.

Export formats available are:

csv ASCII file with Comma

Separated Values

tsv ASCII file with Tab

Separated Values

table HTML web page table

xml XML format, suitable for

processing by other

programs.

excel Microsoft Excel

spreadsheet

bus Business Units. Suitable

for input back into OVPM using the Flat File data

source

Please note that for the first time you can export data from a Java Table. The exported data will honor any column rearrangement, sorting, and filtering you have done with the Java Table before you export. All the data in the table is exported, not just the window that you can see.

Exports can be done to a local file, one on the client system, or to a new browser window.

• **"Expert" users**: Using the OVPM Administrator Interface, a user can now be marked as being an "expert". This will enable certain advanced features when running OVPM. For this release, the advanced features consist of additional settings in Client Configuration as noted below and a new Expert Tab in the Java UI Design Mode. Future releases may enable expert users to access additional advanced features.

A new Expert tab is available in the Java User Interface Design Mode for those users who have been configured through the Admin GUI with the expert privilege. This tab allows for the configuration of some of the more advanced features of a graph including SUMFROMRAW and FORCEPOINTSEVERY. Previously these features were only available by editing the graph template.

- **Client Configuration**: A new facility has been added whereby a user can change the settings for many of the configuration items for OVPM. Some configuration settings are only available for "expert" users. These changes are kept local to that client through the use of cookies and so do not affect other clients. A new "Configuration" screen is now available from the Java or Web Forms User Interfaces of OVPM.
- Self-Healing Support: HP OpenView Self-Healing Services is now available for OVPM. Self-Healing Services collect data necessary to streamline the resolution process. HP recommends the use of Self-Healing Services, and it is included in every support contract. Documentation and downloads for Self-Healing Services are available at: http://support.openview.hp.com/self_healing.jsp. Once Self-Healing Services is installed on the system, you should be able to submit a Self-Healing incident against the OVPM product. It is recommended that before submitting a Self-Healing incident, the problem is reproduced with OVPM trace enabled. This is to make sure that appropriate trace messages are available in the trace file when Self-Healing Services collects data from the system.

Documentation

The first page of this release notes document contains the following identifying information:

- Version number, which indicates the software version.
- 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, visit the following URL:

 $http://ovweb.external.hp.com/lpe/doc_serv/$

- 1 In the Product list, click the product name, Performance Manager.
- 2 In the Version list, click the version number.
- 3 In the OS list, click the OS type.
- 4 In the document list, click the document title.
- 5 To retrieve the document, click Open or Download.

NOTE: To view files in PDF format (*.pdf), Adobe Acrobat Reader must be installed on your system. To download Adobe Acrobat Reader, go to the following URL:

http://www.adobe.com/

Documentation available for OVPM can be found in the paperdocs directory on the installation CD, or once OVPM is installed, in the /opt/OV/paperdocs/PM/C/ directory on UNIX and $<install_dir>\paperdocs\PM\C\$ on Windows. The OVPM documentation includes the following:

- **OVPM Installation Guide** gives installation and upgrade information, and covers migration from PerfView. See the OVPMInstallGuide.pdf.
- **OVPM User Guide** is a document that shows you screen shot examples of using the OVPM product to accomplish typical tasks. It is a quick way to be introduced to some of the things that you can do with OVPM. See the file OVPMUserGuide.pdf or bring up the "Table of Contents" from the OVPM home web page and select "User Guide and Tutorial."
- **OVPM Planner Guide** includes a tutorial for using the OVPM forecast graphs. You can get a printable copy in adobe acrobat format from the file:

PlannerManual.pdf

- **OVPM Administrator's Guide** describes tasks that should be performed by the administrator of the product such as configuration, selecting security options, and troubleshooting. See the file administrator.pdf or you can reference the Administrator's Guide as a web page using the URL http://system:8080/OVPM/Help/C/Administrator.htm
- Online Help is available in the product user interface. Selecting the Help button will display a description of the current page plus details on each of the features it offers.
- Release Notes (this file) show information that has changed from the previous release, known problems, enhancements and fixes, plus any special procedures or late breaking news. This file is available from the Installation CD and in the file OVPMReleaseNotes.htm
- License Agreements are available on the installation CD in the /LICENSES directory. The "std.txt" file describes the licensing of HP OpenView Performance Manager. The "eval.txt" file describes the licensing and support of HP OpenView Performance Manager during the 60-day product trial period. Additional files in the /LICENSES directory describe legal agreements from The Apache Software Foundation, Oracle Corporation, and the World Wide Web Consortium covering technologies from those companies that are embedded in performance manager. When you install OpenView Performance Manager, you are agreeing to abide by the conditions in each of these documents.

Installation Notes

Installation requirements, as well as instructions for installing OpenView Performance Manager, are documented in the **OVPM Installation Guide** provided in Adobe Acrobat (.pdf) format. Please review this document before installing OVPM. It is available through the first Install window, or the paperdocs directory on the installation CD.

For a current list of supported platforms, please refer to this web site:

http://support.openview.hp.com/sc/support_matrices.jsp

Enhancements and Fixes

Enhancements:

- Configurable Date and Time Formats: The format of dates and times on graphs and tables default to the settings for the OVPM server system. Now these formats can be specified by the OVPM user. Formats can change the order of Month, Day and Year as well as the separator characters and number of digits in each. Time can be specified as 12 or 24 hour formats with or without leading zeros. The date and time formats can be specified for an individual client (see previous item) or by using the OVPM "Style" files, for a particular customer or user, or for all users. See the OVPM Administrator's Guide for more details.
- **Flexible Metric Label formats**: Additional flexibility has been added to the metric LABEL field for this release. You can now include additional keywords to supply more information about the metric being graphed:

Variable	will be replaced by	
@@[LABEL]	The metric label specified by the data source. (Such as "CPU %") If the data source does not provide a label, then the metric name will be used.	
@@[METRIC]	The metric name (Such as "GBL_CPU_TOTAL_UTIL")	
@@[CLASS]	The metric class (Such as "GLOBAL")	

@@[SYSTEM]	The system name supplying the metric (Such as "mysys.net.com")	
@@[DATASOURCE]	The data source for this metric (Such as "MWA" or "CODA", etc.)	
@@metric	The value of the <i>metric</i> metric from the same data source and class. For example, @@BYDSK_DEVNAME will label the metric with the value of the BYDSK_DEVNAME metric. If the BYDSK_DEVNAME metric value were "0", Disk @@BYDSK_DEVNAME would produce a label of Disk 0	

- Example: @@[DATASOURCE]:@@[SYSTEM]:@@[CLASS]:@@[METRIC] might produce labels like: "MWA:mysystem.pub.com:GLOBAL:GBL CPU TOTL UTIL"
- Example: @@[LABEL] might produce labels like "CPU %".
- A default label format can be specified in the "VPI_Style.txt" files. This format will be used whenever a graph is drawn that has not specified metric labels. BY editing the appropriate VPI_Style.txt file, the defaults can be set globally, for each customer or user, or for a particular "Skin" directory. See the OVPM Administrator's Guide for details.
- **Draw Java Graphs with No Toolbar**: You can now specify that Java Graphs should be drawn without their toolbar being visible. This can be useful to give more visible graph area when projecting graphs, etc.
- Sort By Reverse Values: In addition to designing a graph that sorts metrics by their values (largest to smallest), you can now also design a graph that sorts metrics in Reverse Value order (smallest to largest). This allows you to focus on under utilizedd values. For example: The Reporter "Top CPU Systems" graph can now be complemented with a "Bottom CPU Systems" graph, showing you which systems are candidates for getting additional work.
- **Metric Summary = "count"**: If your data source is providing transaction data but is not including a transaction count, then you can use the new metric summary technique to count how many data source records were summarized into each data point.
- **Date Range=all from the Java UI**: You can now select "all" from the date range drop down in the Java User Interface and specify all data available in the data source. This feature, already present in the Web Forms User Interface, has now been made available from the Java UI.

- **Maximum Number of Points in Graphs and Tables**: OVPM limits the maximum number of points in various output formats in order to avoid problems. Sending too many formatted records to browser can cause a variety of failures in different web browsers.
 - For those users that have a need to exceed these limits, they can now change some of them using the Client Configuration or OVPM "Style" files. The maximum number of points in a Graph is now 1024 for HTML and 2048 for Java and the maximum number of points in a Table (Java or HTML) is 5000. Using this new feature you can raise the limit as high as you want but be prepared for problems when displaying very large amounts of data.
- Added status message indicating the version of the JNI library (pmjni) being used by the server.
- Headers and Trailers will now be available for Java graphs drawn from the web forms interface. This text will be found in the graph's Properties/General tab.
- Handled duplicate system names being entered from the Web Forms user interface. This has caused repeat System Information displays in the Design tab.
- Added date range units of "week" to handle longer time periods for forecasting.
- Added check for File type data sources when doing System Information.
- Changed the Graph Background parameter so that it affects the entire graph area, not just the central part. Switched text and axes colors from black to white when darker background colors are selected.
- In the Java UI, when selecting a date using the calendar type display, you can move forward and back in one year increments by holding the shift key down while you click the "<" or ">" buttons. If you do not hold down the shift key, these buttons move by one month at a time just as they did before.
- In the Java UI, changing a date using the calendar type of display now starts with the calendar set to the previously selected date. Previously this display always set to the current date.
- QXCR1000027466 ER: Support setting the ForcePointsEvery value from the Java UI.
- QXCR1000042563 ER: Support authoring the graph header/trailer from the Java UI.
- QXCR1000045326 ER: Request to save individual users custom graph settings Customer request to allow individual users to save their favorite custom graph settings, such as the background colors, etc. Particularly from the Java applet.
- **QXCR1000217420** Improve Printing capabilities and available features.
- QXCR1000223882 allow variables in the metric labels to supply data source, etc.
- QXCR1000224811 Add cancel option after graph request sent.

- **QXCR1000229280** ER: request to improve the performance of graphs when collection is large.
- **QXCR1000235065** ER: Launching of New graphs from Complex graphs Drill down dialog is disabled.
- QXCR1000242342 ER: Increase the maximum number of records transferred from OVPA to OVPM.
- QXCR1000242345 ER: Support SUMFROMRAW from the Java UI.
- QXCR1000281233 Support of OVPM on HP-UX 11.23 PA RISC architecture.
- QXCR1000304819 ER: Password to be displayed as "*******"
- **QXCR1000307575** ER: show the number of rows in a table.

Fixes

The following items, identified by error tracking number, are fixed in this release:

• QXCR1000044006 -- Metrics per graph and Multiple/Single graphs feature

The "Multiple Graphs" feature is now implemented for Java Graphs so that it matches the HTML graph implementation. If the number of metrics on a graph exceeds the "Metrics Per Graph" value due to the use of a filter "=@" construct, then additional graphs will be drawn to accommodate all metrics.

- **QXCR1000047191** Unable to do NOMARKERS in Java Graph from batch mode.
- QXCR1000089521/QXCR1000044197 Print-out from Java Interface is very washed
 out.
- QXCR1000193221 OVPM Java GUI does not offer usable print capabilities.
- QXCR1000205441 Drill down on Perf Comparison graph only shows one system.
- QXCR1000207934 socket growth when error occur accessing an NCS agent.
- QXCR1000212442 Web Forms/OVOW Console drill-down for two or more systems fails.
- **QXCR1000223841** OVPMconfig.ini Reporter DSN=variable for Oracle is unclear in the documentation.
- QXCR1000224008 _doprint signal 11 exception during a refresh of a coda agent.
- QXCR1000224401 ovpmbatch uses localhost preventing remote viewing of the graph.
- **QXCR1000229660** In user defined graphs, the right and left y axis is being transposed when saved.

- **QXCR1000230833** OVPM shows wrong values for averaged metrics.
- QXCR1000232894 OVPM java interface hangs if previously connected mwa agent is shutdown.
- QXCR1000233740 OVPM filters broken when value contains special characters =<>>.!
- QXCR1000233742 OVPM logs null pointer exception for xml form when no data found.
- **QXCR1000234513** Generic DB displays a fraction of the tables from Oracle.
- **QXCR1000235931** Auto-refresh of graph not working.
- QXCR1000238834 mishandling "instance" when instances contained blanks.
- **QXCR1000244685** OVPM can hang when connecting to perflbd reporting an error of (MWA210-33).
- **QXCR1000246100** Java Graph Drill Down jumps to 7 days when drilling on a graph showing data all from the same day.
- QXCR1000246100 OVPM fails when making two simultaneous requests to an OVIS datasource.
- QXCR1000247469 Graphs not visible in DrillDownPropertiesDialog from Web UI.
- QXCR1000246862 Unable to see the NETIF metrics for some of the OVPA agents.
- **QXCR1000287960** OVPM 5 & Reporter Integration broken when customer password configured.
- **QXCR1000288867** Display only user needs to login two times to see the behavior in case of Java.
- **QXCR1000295953** Graph templates with German locale not reading decimal which is affecting scale.
- QXCR1000299792 Display Only restricted access is not working properly in OVPM 5.0.
- **QXCR1000304727** No buffer space avail and handle leaks lead to OVPM hangs when using OVPM batch.
- QXCR1000244211 OVPM seems to be handing the metric, DATE_SECONDS incorrectly. According to the metric documentation, this metric should be shown in local time but it appears that it is having a local time correction applied to it a second time.
- QXCR1000334172 Web forms interface does not respect end date in OVPM 6.0
- QXCR1000343451 If a user drills down on a graph and if the duration chosen was less than a day,OVPM throws up an error message which says no data found. The starting and ending date mentioned in the error message are also incorrect.

- **QXCR1000316686** Customer request that seconds be displayed in drilldown tables and java graphs
- QXCR1000323553 OVPM 5.0.16 case insensitive customer login name results in HTTP 404 error
- **QXCR1000330682** No data provided for graphs requested with date range ending as "last" and points every equal to 5 minutes.
- **QXCR1000344915** OVPM 5.0 takes too long a time to time out when an agent is not reachable.
- QXCR1000347568 OVPM: Provide a configurable JVM free memory check in OVPM
- **QXCR1000301793** OVPM 5.0: Some values in drill-down table can become invisible if the row they are in is "selected".
- **QXCR1000345346** OVPM 6.0 ignores PORTS settings for ovbbccb running on non-default ports
- QXCR1000343541 Single port SSL communication broken with OVPM 6.0
- QXCR1000350863 5-15 minute difference between 'last' and 'now'
- QXCR1000343724 OVPM 6.0: Name attribute of Metric is empty in Xml Graphs

Known Problems, Limitations and Workarounds

• Concurrent NCS Access: Attempting multiple concurrent connections to the same system when that system is running the OVPA agent and using NCS datacomm can cause errors. Examples include repeatedly drawing the same graph on a system by rapidly clicking the "Draw" button. Preliminary testing indicates that this problem is most prevalent when connection to NCS on a Tru64 operating system, less prevalent on an Aix operating system, and infrequent on a Solaris system. Multiple connections to OVPA using the DCE or HTTP (BBC) datacomm does not appear to have this problem.

Workaround: Avoid drawing multiple graphs to the same NCS system without waiting for the previous graph to complete.

• **QXCR1000319392**: OVPM cannot display localized AM/PM characters in Java graphs from a multibyte locale. By default, OVPM will display time in a 24-hour format. Users have the option to change date and time formats through the Settings button or tab, including the option to display time in a 12-hour format with an AM/PM identifier. However, characters used in localized AM/PM identifiers may be corrupted in Java graphs in some locales (such as Simplified-Chinese and Korean).

Workaround: Use a 24-hour time format in these locales.

• QXCR1000355238: Installing OVPM 6.01 on a system with OVGC 4.x breaks OVGC 4.x.

Installing OVPM 6.01 on the same system that has the OVOW management server 7.x or OV Reporter 3.x breaks the built in graphing component referred to as OV Graphing Component (OVGC).

Workaround: To solve this problem, delete the ISAPI filter using the following steps: From Internet information Services (IIS) Manager: Click on "Web Sites". Right Click on "Default Web Site" and select "Properties". In the "Default web Site Properties" dialog box, Click on "ISAPI Filters". Highlight both the filters namely "AnalyzerISAPI" and "jakarta_ovpm" filters and click on the Remove" button. Click "OK" and exit out of Internet information Services (IIS) Manager. Then restart IIS using the command iisreset from the command prompt. After restarting IIS, restart OVPM.

QXCR1000311288: Chinese title shown as garbled characters in the JavaUI.

This issue is due to the LC_ALL and LANG variables not getting passed when OVPM is started by OV Control (OVC). OVC reads environment variables from OV Config database under namespace [ctrl.env], and not from the user session where the above variables are exported. Therefore, the above variables need to be explicitly added in the OV Config database under namespace [ctrl.env]. This problem occurs when OVPM starts up for the first time after installation, because the installer starts OVPM using OVC. However, the problem goes away if OVPM is restarted using "ovpm" script, since the script takes the above variables from the user session.

Workaround:

Stop OVPM by running the following command as root user.

/opt/OV/bin/ovc -stop

— Run the following two commands as root user:

/opt/OV/bin/ovconfchg -ns ctrl.env -set LC ALL \$LC ALL

/opt/OV/bin/ovconfchg -ns ctrl.env -set LANG \$LANG

where, LC_ALL and LANG are the UNIX environment variables set to specify the locale. Please make sure that those environment variables are appropriately exported before running the above commands. For example, one may set the following values on HPUX to run on Simplified Chinese.

LC ALL=zh CN.hp15CN

LANG=zh CN.hp15CN

Restart OVPM by running the following command as root user.

/opt/OV/bin/ovc -start OR /opt/OV/bin/ovc -restart

Autopass Issue QXCR1000304334:

A critical installation defect has been identified with released versions of HPOvLIC for Windows. HPOvLIC (also known as Autopass) is the HP OpenView licensing component delivered and used by many OpenView products. This problem may occur when any product installs HPOvLIC 5.02.000, 5.10.040, 05.10.050 or 05.20.010 on a system where HPOvLIC 4.32.000 or any lesser 5.x version is already installed. In this case, if any of these HPOvLIC files remain locked during the installation of these versions of HPOvLIC, the locked HPOvLIC files do not get replaced as required. This leaves the HPOvLIC component in an unknown state. The product specific symptoms of this problem can vary significantly depending on the HPOvLIC versions involved and the specific files that remained locked during installation. In general, this situation can render some or possibly all of the HPOvLIC functionality inoperable. This can affect any OpenView products only when all of the following criteria are met:

- The platform is Windows
- The OpenView product packages and installs the HPOvLIC license component.
- The product is installed along with other OpenView products that use HPOvLIC on the same system.
- One or more HPOvLIC files remain locked or busy during the installation of a newer version of HPOvLIC.

OpenView products that can be affected:

Product Family	Product Version	HPOvLIC version included with product
OV Operations for Windows Server	7.5	5.10.040
OV Transaction Analyzer	3.1	5.10.050
OV Transaction Analyzer	2.x or older	4.32
OV Internet Services	4.5 thru 6.1	4.32
OV Network Node Manager	6.4 & 7.X	4.32
OV Performance Manager	5.0	4.32
OV Service Desk for Windows	5.0	5.10.050

Note that this problem has been seen just a few times, and primarily with OV Transaction Analyzer and OV Internet Services. These products are frequently installed on the same system, and these applications maintain a continuous lock on some of the HPOvLIC component files.

Workaround:

The problem can be prevented by one the following:

- Install the product that uses the highest version of HPOvLIC first.
- Stop all services and processes associated with the existing OV product before installing the additional OV product

These preventative options are frequently not possible to do. If the problem has already occurred, it can be repaired using the HPOvLIC Recovery Tool. This is available for external from the password delivery center at www.webware.hp.com.

• Windows XP Service Pack 2 restricts RPC interfaces:

Applying Windows XP service pack 2 or Windows 2003 service pack 1 (or hotfixes to Windows 2003 sp0) will restrict RPC interfaces and prevent communication between OVPA and other OpenView products, such as OVPM.

Workaround: Please refer to QXCR1000225770 for more details and the steps on how to workaround this problem. The workaround is also documented in the OVPA4.5 release notes.

• QXCR1000314500: Tomcat does not always start automatically after a reboot.

Workaround: Manually start tomcat by issuing an ovpm start command or follow the workaround instructions in QXCR1000314500.

Support

Please visit the HP OpenView support web site at:

http://www.hp.com/managementsoftware/support

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

HP OpenView 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 valuable support customer, you can benefit by using the support site to:

Search for knowledge documents of interest

- Submit enhancement requests online
- Download software patches
- Submit and track progress on support cases
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Enter discussions with other software customers
- Research and register for software training

NOTE: 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://www.hp.com/managementsoftware/access_level

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

http://www.managementsoftware.hp.com/passport-registration.html

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