HP OpenView Performance Agent

for the Windows operating system

Release Notes

Software version: 4.60 / February 2007

This document provides an overview of the changes made to HP OpenView Performance Agent (OVPA) for the 4.60. It contains important information not included in the manuals or in online help.

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In This Version

OpenView Performance Agent (OVPA) was formerly called the MeasureWare Agent (MWA) In some places, the name MeasureWare Agent and MWA might still appear.

- This release of OVPA is supported on Windows 2000, Windows XP and Windows 2003.
- This release of OVPA supports the following features:

VMWare ESX server support

OVPA 4.6 can be installed on a Virtual Machine (VM) hosted on VMWare ESX server version 2.5.x or 3.x. When installed on a VM (running Windows OS) hosted on VMWare ESX server 3.x and above, OVPA 4.6 displays metrics that can be used to identify a VM and understand a VM's contribution to the utilization of physical resources available in the system. Values of the new metrics vary depending on whether OVPA is on a standalone Windows System or on a Windows VM hosted on ESX Server 2.5.X or 3.x.

Following is the list of metrics that are added:

- Global Class:
 - GBL_LS_TYPE
 - GBL_LS_ROLE
 - GBL_LS_MODE
 - GBL_LS_SHARED
 - GBL_CPU_ENTL_MIN
 - GBL_CPU_CYCLE_ENTL_MIN
 - GBL_CPU_ENTL_MAX
 - GBL_CPU_CYCLE_ENTL_MAX
 - GBL_CPU_SHARES_PRIO
 - GBL_CPU_ENTL_UTIL
 - GBL_CPU_PHYS_TOTAL_UTIL
 - GBL_CPU_PHYSC
 - GBL_MEM_ENTL_MIN
 - GBL_MEM_ENTL_MAX
 - GBL_MEM_SHARES_PRIO
 - GBL_MEM_PHYS_SWAPPED
 - GBL MACHINE MEM USED
 - GBL_MEM_OVERHEAD

The values for these metrics are collected using Guest SDK provided by VMware for VMs hosted on ESX Server 3.X. You must install VMWare Tools in the VMs if you want to use Guest SDK.

In a VM hosted on an ESX2.5.X Server, the value for all the above metrics except GBL_LS_TYPE and GBL_LS_ROLE will be N/A.



The OVPM and OVReporter templates for virtualized environment can be downloaded from: ftp://ftp.hp.com/pub/ovreporter/VirtualizationTemplates

Configurable Logging Intervals

- Ability to configure the process interval between ranges of 5-60 seconds.
- Ability to configure interval for other intervalized classes to 15, 30, 60 or 300 seconds.
- You can configure the intervals in the parm file. The global interval value must be a multiple of the process interval value.

Example: To set the process collection interval to 15 seconds, global and all other intervalized data classes to 30 seconds, enter the following in the parm file:

```
collectioninterval process=15, global=30
```

The default values for process=60 seconds, global=300 seconds.

- If no value is specified for the collection interval line in the parm file, or if scopeux detects illegal values while starting, the defaults will be used.
- Start scopeux -c after modifying the parm file. This will display any warnings which may occur due to incorrect values.

Additional logging thresholds

Logging thresholds for process data. The default parm file contains the following:

```
procthreshold cpu = 5.0, memory = 900, disk = 5.0, nonew, nokilled
```

To request that all process data be logged each interval,

```
procthreshold all
```

The procthreshold is equivalent to threshold, which was available with earlier releases.

Logging thresholds for additional data classes (such as, application and device data).

Logging thresholds for application data, appthreshold.

Example, the following entry in the parm file will log only that application instances for which cpu utilization exceeds 10.0% during the interval

```
appthreshold cpu = 10.0
```

To request that all application data be logged each interval

```
appthreshold all
```

Thresholds for disk data, diskthreshold.

Example, the following entry in the parm file will log only those disk instances for which disk utilization time exceeds 10.0% during the interval,

```
diskthreshold util = 10.0
```

To request that all disk data be logged each interval,

```
diskthreshold all
```

Logging threshold for netif data, bynetifthreshold.

Example, the following entry in the parm file will log only those netif instances for which the IO rate exceeds 60.0 packets per second during the interval,

```
bynetifthreshold iorate = 60.0
```

To request that all netif data be logged each interval,

bynetifthreshold all

Logging threshold for file system data, fsthreshold.

Example, the following entry in the parm file will log only those file system instances for which the space used exceeds 70.0% during the interval,

```
fsthreshold util = 70.0
```

To request that all file system data be logged each interval,

fsthreshold all

Logging thresholds for cpu data, bycputhreshold.

Example, the following entry in the parm file will log only those cpu instance for which the percentage utilization of the cpu exceeds 90.0% during the interval,

```
bycputhreshold cpu = 90.0
```

To request that all cpu data be logged each interval,

bycputhreshold all

Flush Interval

Ability to request a data flush interval for application and device data classes. Ability to record/log ALL instances of application and device data periodically, including instances which are considered "uninteresting" based on the threshold criteria specified.

Example, the following entry in the parm file will cause all instances of application and device data to be written to the logs once per hour (3600 seconds).

```
flush = 3600
```

The flush seconds must be in the range 300-32700 and be an even multiple of 300.

Other

The following new metrics are included:

- Global Class:
 - GBL_MEM_PAGEIN
 - GBL_MEM_CACHE_FLUSH_RATE
 - GBL MEM_DATA_MAP_HIT_PCT
 - GBL_MEM_PAGE_FAULT_RATE
 - GBL_SRV_WRKITM_SHORTAGES
 - GBL_NETIF_UTIL_PEAK
 - GBL_CPU_CLOCK
- FS Class:
 - FS_REQUEST_QUEUE
- BYCPU Class:
 - BYCPU_CPU_SYS_MODE_TIME
 - BYCPU_CPU_USER_MODE_TIME
 - BYCPU_CPU_CLOCK
- BYDSK Class:
 - BYDSK_AVG_SERVICE_TIME

- BYNETIF Class:
 - BYNETIF_UTIL
- OVPA is supported on Windows running with the MUI (Multilingual User Interface) package.
- This release includes enhancements and defect fixes. For details, see the <u>Enhancements and Fixes</u> section.

Documentation Updates

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/

- In the Product list, click the product name.
- 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**.



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

Installation Notes

For installation requirements and instructions, see the HP OpenView Performance Agent for Windows Installation and Configuration Guide, provided as part of the product in Adobe Acrobat (.pdf) format. You can find this document, ovpainst.pdf in the \paperdocs directory on the product's CD media.

After installation, you can find the document at:

<INSTALLDIR>\paperdocs\ovpa\C\ovpainst.pdf

Before installing OVPA, make sure your system meets the requirements described below:

Software Requirements

OVPA requires one of the following operating system versions:

- Microsoft Windows 2003 Series
 - Standard Edition
 - Enterprise Edition

- Datacenter Edition
- Web Edition
- Server for Itanium-based Systems
- Server for x64 Editions
- Microsoft Windows 2000 Series
 - Datacenter Server
 - Professional Server
 - Advanced Server with Service Pack 4 or later
- Microsoft Windows XP Series
 - Standard with Service Pack 1 or later
 - Professional x64 Edition

Hardware Requirements

OVPA runs on Microsoft Windows with the following minimum hardware requirements:

- Intel Pentium processor or equivalent
- Intel Itanium2
- AMD Opteron
- Intel Pentium with EM64T
- Intel Xeon with EM64T

Supported Architecture and Operating Systems

Architecture	Operating System	Protocol
X86	Windows 2003 Standard Edition	HTTP(S),
RPC	Windows 2003 Enterprise Edition,	
	Windows 2003 Datacenter Edition,	
	Windows 2003 Web Edition	
	Windows 2000 Datacenter Server,	
	Windows 2000 Professional Server,	
	Windows 2000 Advanced Server	
	with Service Pack 4 or later	
	Windows XP Standard with	
	Service Pack 1 or later,	
X86_64, AMD 64, EM64T	Windows 2003 Server for x64 Editions	RPC

Windows XP Professional x64 Edition

IPF

Windows 2003 Server for Itanium- RPC RPC based Systems

Communication Protocols

OVPA supports the following communication protocols:

- HTTP(S) 1.1
- RPC

Disk Space Requirements

OVPA uses disk space in the following areas: program files, control panel applet, data files, log files, and temporary files.

- Program files OVPA requires approximately 100 MB of disk space for installation of program files that are stored in the Install directory path.



There is no web fulfillment mechanism to convert the OVPA images to a non-trial licensed product. To obtain the production (non-trial) version of OVPA, you must purchase a License-to-Use product for each system on which OVPA images are installed, and at least one copy of the OVPA media product for your overall environment.

You must install the production software for OVPA from the media. You can install the production software directly over the trial software (you need not required to remove the trial software first).

Special Installation instructions

- If you are installing OVPA 4.6 and OVO 7.x agent on the same system, you must install OVO 7.x agent first and then OVPA 4.6.
- If you are installing OVPA 4.6 on a system on which one or more of the following OV products are installed, it is recommended to restart the following after OVPA 4.6 installation:
 - a OVO Agent
 - b OVO Windows Management Server
 - c OV Performance Manager
 - d OV Reporter
 - e OV Performance Insight
 - f OV Internet Services

• If you have HP OpenView Smart Plug-Ins installed, install the following patches for Smart Plug-Ins to work successfully with OVPA 4.6. These patches are needed to update a tool that is used to integrate HP OpenView Smart Plug-Ins with OVPA.

HPUX: OVO/U 7.1X on HPUX-PA PHSS_33921

OVO/U 8.1X on HPUX-IA PHSS_33922

Solaris: OVO/U on 7.1X Sun ITOSOL_00474

OVO/U on 8.1X Sun ITOSOL_00475

Enhancements and Fixes

The following issues (identified by error tracking number) are fixed in this release.

QXCR1000289162

PROBLEM: Application utilizations don't add up to GLOBAL CPU utilization.

FIX: A new parameter, gapapp, is added in parm file. Based on the parameters for gapapp, a

dummy application, whose metric values indicate the differences between global metrics

and sum of app metrics, is added to application list.

QXCR1000370552

PROBLEM: "mwa restart alarm" exposes file descriptor leak in rep_server.

FIX: The problem is fixed now.

QXCR1000368751

PROBLEM: OVPA alarms received by OVO show the alarm start time to be later than the end time.

FIX: Now, the alarm start time will not be greater than the end time.

QXCR1000362775

PROBLEM: perfalarm, while restarting, is unable to connect to coda if bbc port is being changed

dynamically.

FIX: Now, restart of perfalarm can connect to coda after the bbc port is changed dynamically.

QXCR1000366448

PROBLEM: coda process crashes while destroying ScopeAccess object.

FIX: The problem is fixed now.

QXCR1000298401

PROBLEM: perfstat has to be enhanced to show the active datasources.

FIX: perfstat should show active datasources if coda is running.

QXCR1000356310

PROBLEM: Scope Access API's consume very high CPU, causing the coda process to show a very high

value for PROC_CPU_TOTAL_UTIL.

FIX: The issue of CODA consuming high CPU utilization for huge log files, without any client

request, has been fixed.

QXCR1000336978

PROBLEM: Need a mechanism to verify if installations of OVPA contain permanent licenses.

FIX: OVPA software license status can now be obtained using '-licheck' option of extract or

utility.

QXCR1000334578

PROBLEM: No "success" message after silent install of OVPA, and customers utilizing silent install

need to be able to "sense" that message in order to validate a successful install.

FIX: If the installation OR uninstallation is executed with the /z"-1 " option, then a

message is put in a log in the %TEMP% directory.

QXCR1000319993

PROBLEM: perfstat -p does not provide output when redirected into a file on WinXP + SP2.

FIX: Now, The output of 'perfstat -p' can be redirected to a file in WINXP SP2 systems.

QXCR1000378175

PROBLEM: As OVPA is configurable in seconds' granularity, TIME metric should also give seconds

too.

FIX: Now TIME metric will be displayed in HH:MM:SS format.

To see the data with seconds granularity with OVPM, version of OVPM6 should be

06.01.042 (patch) and version of OVPM5 should be X.05.00.036 (hotfix).

PROBLEM: When OVPA reports GBL_FS_SPACE_UTIL_PEAK, it includes EISA configured partitions as

well. Thus the OVPA and PerfMon counters do not match.

FIX: This problem is fixed. OVPA does not count EISA configured partitions.

QXCR1000322780

PROBLEM: When data communication is HTTP, the startup type for "OVPA Agent" service should be

MANUAL. For RPC communication, it should be set to AUTOMATIC.

FIX: This problem is fixed. Proper startup type is set to "OVPA Agent" service.

QXCR1000341822

PROBLEM: In 64 bit Windows, utility -xa and utility -xc try to connect to CODA instead of

rep_server.

FIX: This problem is fixed. Utility -xa and utility -xc connect with rep_server.

QXCR1000284243

PROBLEM: scopeux fails on a few Japanese systems due to mismatch in string comparison.

FIX: This problem is fixed. Now, scopeux does not fail on Japanese systems.

QXCR1000354199

PROBLEM: scopent.exe crashes if any process name is more than 31 characters in length.

FIX: The overflow in array is fixed in scopent.exe.

QXCR1000302299

PROBLEM: When OVPA 4.5 is deployed from mgt server to a node which is running OVOA/DCE

communication, the deployment of OVPA 4.5 stops responding.

FIX: This problem is fixed. Now, OVPA 4.5 is deployed successfully on an OVO agent with

DCE communication.

QXCR1000085183

PROBLEM: Application grouping may fail for processes started with a user context other than the

logged on user, for applications defined based on users.

FIX: New parm file options have been added to group processes into applications based on the

invoking user's username. OVPA now allows you to bucket processes into applications based on [<domain name>]\<user>, where <domain name> is optional, when not specified, <user> will be treated as local user.

Example:

Application = Guest_Apps

 $user = hp \setminus guest$

QXCR1000373949

PROBLEM: ECP/ECBM stop and start policy shrinks the Status and Error logpath, thereby affecting

'ovc -start'.

FIX: Now, with the stop and start of the ECP/ECBM policy will not shrink the Status and

Error logpath.

QXCR1000327694

PROBLEM: coda dumps core while starting when it tries to access a corrupted DSI log files.

FIX: This problem is fixed and now coda ignores a data source if corresponding DSI log file is

corrupted and an error message is logged to coda.txt.

QXCR1000315985

PROBLEM: On some Windows systems, "UNAUTHORIZED CONNECTION ATTEMPT" message is logged into

the status.rep_server file even though the machine name is included in the `authip'

file.

FIX: This problem is fixed.

QXCR1000323517

PROBLEM: alarmgen terminates abnormally when CONFIGURATION metrics are included in the

alarmdef file.

FIX: This problem is fixed.

QXCR1000319426

PROBLEM: PROC_CPU_SYS_MODE_UTIL, PROC_CPU_USER_MODE_UTIL and PROC_CPU_TOTAL_UTIL

metrics overflow for a multithreaded application in a multi-CPU environment if the

value exceeds 327.67%.

FIX: The upper limit for these metrics has been increased to 3270%.

PROBLEM: scopeux stops running after one year limit is reached for any of scope log files.

FIX: This problem is fixed. Now, scopeux continues to run after performing roll-over for the

data in the scope log file for which one year limit is reached.

QXCR1000240635

PROBLEM: scopeux terminates when the /var file system is full.

FIX: Scopeux is modified to log a WARNING message in the status.scope file and stops

logging if it finds that the space in the /var file systems is less than 1 MB.

perfalarm/alarmgen will generate an alarm to indicate this situation. scopeux will

resume logging once free space in the /var file system is greater than 1MB.

QXCR1000334202

PROBLEM: Change in GMT offset values is not logged for GBL GMTOFFSET due to day light saving

(from ST to DST or vice versa).

FIX: Now, scope logs a new configuration record whenever there is change in value of

GBL_GMTOFFSET.

QXCR1000316706

PROBLEM: coda performance degrades and memory growth is observed if a data source is configured

for a large scope log file.

FIX: Coda's performance has been improved.

QXCR1000193411

PROBLEM: In certain remote situations, the ability of alarmgen to repeat alarms is impacted due to

scopent receiving blank or zero values from the performance counters. Perfmon would

also show zero values.

FIX: Now alarmgen sends alarms correctly.

QXCR1000286002

PROBLEM: Microsoft has introduced changes in Win XP SP2 RPC functionality that introduces

restriction in communication between RPC servers and clients.

FIX: rep server now works with RPC in XP SP2 environment. Note that for external clients to

communicate with OVPA, changes in the register key are still required. For more

information, refer to this CR's "Customer Resolution Notes"

PROBLEM: perflbd, rep_server, extract and sdlutil dump core due to mishandling of errors

returned in case of DSI log file corruption.

FIX: Now perflbd, rep_server, extract and sdlutil are modified to handle the errors for

the corrupted DSI log file, correctly.

QXCR1000309395

PROBLEM: The keys to access the shared memory of two DSI data sources being same results in

data corruption. The corrupted data causes the rep_server to dump core.

FIX: This problem is fixed. Now, the implementation uses memory mapped files and works as

expected.

QXCR1000313261

PROBLEM: BYNETIF_*_BYTE_RATE metrics overflow when the network traffic is high.

FIX: The overflow has been handled and now the maximum value for the

BYNETIF_*_BYTE_RATE metrics is enhanced to 3276700.0

QXCR1000313783

PROBLEM: A miscalculation of address causes dillog to dump.

FIX: dsilog has been fixed to correctly calculate the memory address.

QXCR1000237216

PROBLEM: Memory leak in Coda because of not freeing the allocated memory.

FIX: The memory leak in coda is fixed.

QXCR1000329109

PROBLEM: The path of opcmsg.exe is not correctly specified by perfalarm.

FIX: This problem is fixed. Now, perfalarm sends alarms to OVO7.X Management server.

QXCR1000310128

PROBLEM: perfalarm fails to treat "SCOPE" as default data source.

FIX: This problem is fixed. Now, perfalarm, by default, recognizes the "SCOPE" data source

and doesn't expect the "use SCOPE" statement in alarmdef file.

PROBLEM: Windows missing link loses datasource visibility for DSI and ECB-ECM creation.

FIX: This problem is fixed. Now, on upgrading to OVPA4.6, the old entries in perflbd.mwc will

be retained. Also the datasources file is a link to perflbd.mwc.

Known Problems, Limitations, and Workarounds

QXCR1000346247

PROBLEM:

OVPA alarming module (alarmgen/perfalarm) processes the logged records every 15 seconds. Even if the logging interval is configured to less than 15 seconds (in case of PROCESS class), alarmgen/perfalarm processes all the logged records at the next 15 seconds boundary. Alarms generated on these records will have the timestamp of the last record processed.

For example:

- If an alarm condition is met at 00:02:10, the alarmgen/perfalarm will process that record at 00:02:15, and reports alarm start time as 00:02:00.
- If an alarm condition is ended at 00:02:10, the alarmgen/perfalarm will process that record at 00:02:15, and reports alarm end time as 00:02:15.

WORKAROUND: None

QXCR1000362432

PROBLEM: CODA will not be able to serve any of its consumers for 5 minutes. All the requests to

CODA will fail telling that "CODA is NOT running"

WORKAROUND: NONE.

PROBLEM: Installation of OVPA4.6 fails with the following error message:

"[ProductName] has detected that Internet Explorer version is.

Please install Internet Explorer 5.0 or greater and run the setup again."

WORKAROUND: The issue is due to missing registry key that could have been removed to mitigate VML

vulnerability. Please apply the following registry key values for the installation to

complete successfully.

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Internet Explorer\Version

Vector]

"VML"="1.0"

"IE"="6.0000"

Please refer to http://www.microsoft.com/technet/security/bulletin/ms06-

055.mspx for more information on VML vulnerability.

PROBLEM: BBC5 daemon fails to start on a system with PV installed. The default port for pvalarm,

"PV alarm management" daemon is 383. This is the same as the default port for BBC

communication broker daemon ovbbccb.

WORKAROUND: Select a different port for pvalarm.

QXCR1000339918

PROBLEM: On a system that has Reporter 3.7 and OVPA4.6 installed, un-installation of OVPA4.6

breaks the Reporter functionality due to a missing library.

WORKAROUND: Copy libarm32.dll from the newconfig directory to the system32 directory to make the

Reporter function normally.

QXCR1000377061

PROBLEM: On systems that has OVPA 4.6 installed, by default, the DCE based alarm generator,

alarmgen, is not running.

WORKAROUND: To enable the DCE based alarm generator, alarmgen, stop OV Performance Agent,

rename the perfalarm executable to perfalarm.old, and restart OV Performance Agent

using the mwa script.

PROBLEM: On a Windows system where OVO7.31 and OVPA 4.6 are installed, uninstallation of

OVO7.31 agent terminates Scopent process.

WORKAROUND: Run the following command to start the Scopent service.

ovpacmd start

QXCR1000245676

PROBLEM: Unattended installation truncates the installation directory if the directory name has "-"

in it.

WORKAROUND: The directory name passed as a parameter during unattended installation, either for

install path or for data path, must not have the '-'sign in it.

QXCR1000238862

PROBLEM: Enhance OVPA Windows to log data of NTFS mounted volumes feature of Win 2000)

WORKAROUND: This release of OVPA logs data of NTFS mounted volumes. However, this is only on

Windows 2003 with SP1 platform. OVPA still does not log data of NTFS mounted

volumes on Windows 2000 and Windows XP platforms.

PROBLEM: Installation of OVPA 4.6 on Windows, particularly versions Win2K3 SP1 and WinXP

SP2, may stop responding or terminate with an error message.

WORKAROUND: On the system where the problem was encountered, click Start-> Control Panel -> Administrative Tools and check the "Local Security Policy."

Make sure that the "Impersonate a client after authentication" privilege in the "Local Security Policy" is configured to include the following groups:

- Administrators
- Service

If users without administrative privileges are installing OVPA, the respective users or their security groups must be configured for the "Impersonate a client after authentication" privilege.

For more details on the problem, visit the following link:

http://support.installshield.com/kb/view.asp?articleid=Q111303

PROBLEM: On a system with OVPA 4.6 and OVO 7.x agent already installed, on uninstallation of

OVPA, BBC Local Location Broker(llbserver) is not started.

WORKAROUND: Restart OVO 7.x agent by running the following commands:

opcagt -kill

opcagt -startvolumes

${\it QXCR1000225770}$

PROBLEM: Remote clients like OVPM, etc. fail to connect to rep_server running on a Windows XP

SP2 system

WORKAROUND: | Click Start -> Run. Type regedit, and click OK.

2 Locate and then click the following registry subkey:

HKEY LOCAL MACHINE\SOFTWARE\Policies\Microsoft\Windows NT\RPC

If this subkey does not exist, follow these steps:

a Locate and then click the following registry subkey:

HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Microsoft\Windows NT

- b From the Edit menu, select New, and click Key.
- c Type RPC as the subkey name, and press ENTER.
- d Right-click RPC, select New, and click DWORD Value.
- e Type RestrictRemoteClients as the entry name, and press ENTER.
- 3 Right-click the RestrictRemoteClients entry, and click Modify.
- 4 In the Value Data box, ensure that the value type has been set to 0 (zero)and click OK.

- 5 Quit Registry Editor.
- 6 Restart your computer.

PROBLEM: Extract of logical data (extract -xt with -i/-I option), is not supported in this release.

WORKAROUND: NONE.

Documentation Errata

None.

Software Version Information and File Placement Plan

Version Information

Performance Agent, enter the command:

For a summary of version strings for the major executable components of OV

perfstat -v

File Placement

Note that,

<InstallDir> - is the directory that you choose to install OVPA executables.

<DataDir> - is the directory that you choose to keep OVPA log files.

<disk drive>:\Program Files\HP OpenView\ is the default <InstallDir>, and

<disk drive>:\Program Files\HP OpenView\data\ is the default <DataDir>.

Please note that if you have already installed any HP OpenView Products, OVPA will be installed in the same directory.

You can change the directory path or name if OVPA is the first HP OpenView product to be installed in the system.

• Executables including UI programs, and scripts:

<InstallDir>\bin

• Product configuration and status files:

<DataDir>\

Product binary data and internal-use files:

<DataDir>\ datafiles

Online help files:

<InstallDir>\help\ovpa\C

Library files:

<InstallDir>\lib

Message catalogs:

<InstallDir>\msq\C

Default configuration and template files:

<InstallDir>\newconfig

• Printable documents:

<InstallDir>\paperdocs\ovpa\C

• Release Notes:

<InstallDir>\ReleaseNotes

Dynamically Linked Libraries and Control Panel files:

<%windir%>\system32

Example files:

<InstallDir>\examples

Local Language Support

Localized OVPA is not currently available for this release.

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 valued support customer, you can benefit by being able to:

- Search for knowledge documents of interest
- Submit and track progress on support cases
- Submit enhancement requests online
- Download software patches
- 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



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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