
HP OpenView Performance Agent

For the Sun Solaris Operating System

Release Notes

Software version: C.04.50/ October 2005.

This document provides an overview of the changes made to HP OpenView Performance Agent (OVPA) version C.04.50. It contains important information not included in the manuals or in online help.

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In This Version

OV Performance Agent was formerly called the MeasureWare Agent. In some places the name MeasureWare Agent (MWA) might still appear.

This release of OVPA supports the following features:

- This release of OV Performance Agent is supported on Solaris 7.0 and later.
- Supports HTTP and HTTPS-based data communication.
- Supports single port communication.

Using HTTPS enables secure communication. OVPA continues to support existing DCE or NCS-based communication. You can configure OVPA to use either DCE or NCS-based, or HTTP(S)-based data communication. Refer to Chapter 2 of the *HP OpenView Performance Agent Installation and Configuration Guide for Sun Solaris Systems* for more details.

Important points to note are:

- HTTPS-based secure communication is supported only in the OVO 8.x environment.
- HTTP(S) data communication is supported using CODA.
- Applications that use performance data from OVPA can communicate with OVPA using HTTPS data communication. OV Performance Manager 5.0 can communicate with OVPA using HTTPS, while OV Reporter 3.6 and OV Performance Insight 5.1 can communicate only using HTTP data communication.

What is CODA?

CODA is a daemon that handles data communication (both HTTP and HTTPS) when delivered as part of OVPA. It also handles communication with `perfalarm`, the alarm management daemon. CODA, when delivered as part of OV Operations Agent enables lightweight system performance collection and Smart Plug-In support.

OVPA shares the Black Box Communication functionality with OV Operations. It includes the `ovbbccb` daemon that is started with and used by CODA. Switching to the new data communication facility makes communication across firewalls easier (refer to the *HP OpenView Performance Agent Installation and Configuration Guide for Sun Solaris Systems* for details).

- The DCE-based alarm management daemon, `alarmgen`, has been replaced by the HTTP-based `perfalarm`. `Perfalarm` is the preferred daemon to send alarms to OVO servers. `alarmgen` is still supported for sending alarms to OVPM 3.x (PerfView). Refer to Chapter 2 of the *HP OpenView Performance Agent Installation and Configuration Guide for Sun Solaris Systems* for details on how to set up `alarmgen` as default alarm management daemon.
- The number of applications that can be defined in the `parm` file has been increased to 998; increase in number of application definitions increases the overhead on performance of these tools.
- This release includes the following new metrics:
 - `GBL_SWAP_SPACE_AVAIL`
 - `GBL_STATTIME`
 - `GBL_MEM_PAGEIN_RATE`
- The scaling for the following metrics has been changed from KB to MB
 - `GBL_MEM_AVAIL`
 - `GBL_MEM_PHYS`
- 64 bit ARM library is available on Solaris to support 64 bit applications.

- Dependency of `ttd` to have `rpcbind` or `portmap` running has been eliminated and `ttd` is modified to function independent of `rpcbind` or `portmap`.
- User messages in `extract` and utility tools will now display time in the 24-hour format.
- This release includes minor enhancements and defect fixes. See the [Enhancements and Fixes](#) section for more details.



Before using OV Performance Agent software, you must review and accept the license terms and conditions in the `readme` file available in `/<directory>/readme.ovpa`, where `<directory>` is your CD-ROM directory.

Installation Notes

For installation requirements and instructions, refer to the *HP OpenView Performance Agent Installation and Configuration Guide for Sun Solaris Systems* provided as part of the product in Adobe Acrobat (.pdf) format as `ovpainst.pdf` in `/opt/perf/paperdocs/ovpa/C/`.

Software and Hardware Requirements

Before installing OV Performance Agent, make sure that your system meets the following minimum hardware and software requirements:

- Hardware
 - OV Performance Agent runs on hardware platforms supporting the Solaris operating system, including:
 - Sun4c
 - Sun4d
 - Sun4m
 - Sun4u
 - E 10000
 - Sunfire
- OS platform

This version of OV Performance Agent requires the Sun Solaris 7 operating environments or later. It is recommended to have at least the "End User System Support" level of operating system installed on your Sun system. If the "Core System Support" level of operating system is installed on your system, you have to additionally install the following operating system packages.

- `SUNWlibc`
- `SUNWlibms`

You can determine which packages are installed by using the `pkginfo` command:

```
pkginfo SUNWlibc SUNWlibms
```

If the command returns:

```
ERROR: information for "SUNWlibc" was not found
system SUNWlibms Sun Workshop Bundled shared libm
```

You have to install the appropriate package (`SUNWlibc`).

- Prerequisites

The following Solaris patches are recommended for OVPA to function correctly.

Patch level	Description
117000-03	On Solaris 8, this patch level fixes aborts and incorrect metrics in the perf tools caused by instrumentation errors on earlier patch levels. Patch 108528-29 is known to have this instrumentation issue. It is fixed by 117000-03.
106327-15	Solaris 7: 32-Bit Shared library patch for C++.
106327-15	Solaris 7: Linker Patch.
106980-23	Solaris 7: libthread patch.
107834-04, 107544-03, 106541-34	These three patches are prerequisites for the above three Solaris 7 patches.

- NCS and DCE Communication Protocols

OV Performance Agent C.04.50 for Sun Solaris systems supports emulated NCS and DCE communication protocols. For DCE-based operations, a lightweight DCE client (HPIwdce 1.1.4.23.2) is bundled with OV Performance Agent. The lightweight DCE package provides DCE server functionality in environments where the commercial DCE software is not available. In order to integrate with environments that already provide commercial DCE software, this OVPA release is compatible with the following DCE products:

- DASCOS DCE 1.1.4.15.3 for SUN Solaris 7 and later. (DCE and SECDES packages are required)
- IBM DCE 3.1 for SUN Solaris 7 and 8
- IBM DCE 3.2 for Sun Solaris 9



If you have a commercial DCE product (IBM DCE 3.1 for Sun Solaris 7 or 8) installed and running on your system, you must have HPIwdce package installed as well.

When you perform installation with HPIwdce package, the installation script detects that a DCE client already exists, and the DCE daemon will not be started. The commercial DCE will be deployed for communication with other OpenView products.

- If you are using the lightweight DCE package bundled within OV Performance Agent on systems where no commercial DCE software is available, and you decide to install one of the above mentioned fully functional commercial DCE software at a later date, you must:
 - a Remove your currently-installed OV Performance Agent.
 - b Install the fully functional commercial DCE software.
 - c Reinstall your OV Performance Agent.
- If you were using a fully functional DCE client for OV Performance Agent purposes only, you may safely remove it and use the lightweight DCE package bundled within OV Performance Agent. To do so, you must:
 - a Remove your currently installed OV Performance Agent.
 - b Remove your fully functional commercial DCE software (for information on how to remove it, refer to the DCE documentation).

c Reinstall your OV Performance Agent.

— If you were using a fully functional DCE client for applications other than just the OV Performance Agent, you must ensure that the version of the DCE client software is supported by this release of OV Performance Agent. For more information, refer to the *HP OpenView Performance Agent for Sun Solaris Systems Installation & Configuration Guide*, Chapter 1, "Installing OV Performance Agent" and Chapter 2, "Starting Up & Running OV Performance Agent"

- Disk space

OV Performance Agent installs in the `/opt/perf/` and `/opt/OV/` directories and creates its log and status files in the `/var/opt/perf/` and `/var/opt/OV/` directories.

— recommended 100 MB in the `/opt/perf/` and `/opt/OV/` directories for first-time installation of OVPA

— recommended 125 MB in the `/var/opt/perf/` and `/var/opt/OV/` directories for log and status files

▶ If you are installing or upgrading OVPA on a system that already has GlancePlus installed, be sure to upgrade GlancePlus to the same release version. GlancePlus and OVPA release versions must always be the same.

▶ On a Solaris 10 system with Zones, OV Performance Agent can be installed only in the global zone.

Special Installation Instructions

- If you are installing OVPA 4.5 and OVO 7.x agent on the same system, you must install OVO 7.x agent first and then OVPA 4.5.

- If you are installing OVPA 4.5 on a system on which one or more of the following OV products are installed, then it is recommended to restart the following after OVPA 4.5 installation:

- a OVO Agent

- b OVO Unix Management Server

- c OV Performance Manager

- d OV Internet Service

- If you have an HP OpenView Smart Plug-In (SPI) installation on your system, you must install the following software updates for the SPI to work successfully with OVPA 4.5.

— If you are running OVO management server on Windows operating systems, then download and install the following OVO patch:

— For OVO 7.2x download and install patch OVOW_00201

— For OVO 7.5x download and install patch OVOW_00202

These patches can be downloaded from:

http://support.openview.hp.com/patches/patch_index.jsp

— If you are running OVO management server on UNIX operating systems (HP-UX and Solaris), then download and install the software update, DSI2DDF_A.02.02.00.sdtape.

DSI2DDF_A.02.02.00.sdtape can be downloaded from the following anonymous ftp location:

`ftp://ftp.hp.com/pub/ovreporter/ovpa_spi`

For more information about the software update, refer to the Readme file at the location
`ftp://ftp.hp.com/pub/ovreporter/ovpa_spi/ReadMe.txt`.

Enhancements and Fixes

This release provides fixes to the following major problems and change requests:

QXCR1000026882

PROBLEM: Divide-by-zero condition in `alarmdef` file gives invalid alarms.

FIX: The divide-by-zero condition in `alarmdef` file used to give invalid alarms. Now this issue is fixed and invalid alarm is not generated in a divide-by-zero condition. Instead, it shows the value -1.

QXCR1000026759

PROBLEM: Request for ARM library to support 64 bit applications.

FIX: Now 64-bit ARM library is available on Solaris to support 64 bit applications.

QXCR1000027233

PROBLEM: Correlation issue between `GBL_DISK_PHYS_READ[WRITE]` and `BYDSK_PHYS_READ[WRITE]`.

FIX: Correlation issue between `GBL_DISK_PHYS_READ[WRITE]` and `BYDSK_PHYS_READ[WRITE]` metrics is fixed and now the average of `BYDSK_PHYS_READ[WRITE]` metrics is equal to corresponding `GBL_DISK*` metrics.

QXCR1000192319

PROBLEM: The `rep_server` terminates with `SIGSEGV` when `authip` in place on a system with `dns` service disabled.

FIX: This problem is fixed.

QXCR1000196360

PROBLEM: Provide command line option for `midaemon` to start in normal priority.

FIX: Now `midaemon` can be started in normal priority by specifying the command line option `-normal_prio` during startup.

QXCR1000203110

PROBLEM: C.03.82.00 export shows wrong values of GBL_MEM_PG_SCAN_RATE metric for C.03.75 logfiles on Solaris.

FIX: The export issue with GBL_MEM_PG_SCAN_RATE metric is fixed and now export of GBL_MEM_PG_SCAN_RATE metric will give correct values for C.03.75 logfiles.

QXCR1000206946

PROBLEM: Increase the number of allowable applications in the parm file.

FIX: The total number of separate applications that can be defined in the OVPA and Glance parm file is now increased to 998.

QXCR1000206952

PROBLEM: Eliminate ttd dependency on RPC.

FIX: ttd's dependency on having rpcbind or portmap running has been eliminated and ttd is modified to function independent of rpcbind or portmap.

QXCR1000223179

PROBLEM: In OVPA and Glance, metrics APP_IO_BYTE and APP_IO_BYTE_RATE may overflow for I/O intensive applications.

FIX: This problem is fixed.

QXCR1000233357

PROBLEM: Thread safe version of libarm.so does not work correctly. When multiple ARM applications are run in parallel, some of the applications stop responding due to thread synchronization issues

FIX: Now the thread synchronization mechanism in libarm.so is enhanced and the library is made thread safe.

QXCR1000233643

PROBLEM: Memory leak in rep_server.

FIX: In this version of OVPA, the memory leak issue with rep_server is fixed.

QXCR1000233663

PROBLEM: `status.rep_server` is filled up with spurious 6-digit hex numbers during log files roll-over.

FIX: This problem is fixed.

QXCR1000235478

PROBLEM: Change metric help text for `PROC_THREAD_COUNT`.

FIX: Metric help text for `PROC_THREAD_COUNT` is updated.

QXCR1000245528

PROBLEM: `BYNETIF_ERROR` metric is not in compliance with `netstat -i` output. for smaller values of `BYNETIF_ERROR`.

FIX: The problem with logging `BYNETIF_ERROR` metric for lower values has been fixed. Scope will log correct values for `BYNETIF_ERROR` metric.

QXCR1000246552

PROBLEM: OVPA and Glance show only one CPU on Solaris 10 multiprocessor system.

FIX: This problem is fixed, now both OVPA and Glance show all CPUs on the multi-processor Solaris 10 system.

QXCR1000247399

PROBLEM: ARM throws a Null Pointer Exception when trying to get Correlator Data for second level.

FIX: This problem is resolved.

QXCR1000279338

PROBLEM: Some times `scopeux` may stop responding while collecting 64 bit process information.

FIX: This problem is fixed

QXCR1000195801

PROBLEM: GMT_OFFSET metric is exported incorrectly for negative offset values.

FIX: The GMT_OFFSET metric exports correctly for negative offset values.

QXCR1000245651

PROBLEM: Performance degradation of scopeux observed on systems with high 64-bit processes load.

FIX: The performance of scopeux has been improved to handle high 64-bit process load on the systems.

Known Problems, Limitations, and Workarounds

QXCR1000046070

PROBLEM: OVPA on Solaris does not log LV_ metrics for VxVM 3.5.

WORKAROUND: While VxVM 3.5 logical volumes are not in the LV_ class of data, the file systems mounted on those volumes show up in the FS_ (by-filesystem) class of data. The FS_ metrics must be used to monitor the Veritas volumes.

QXCR1000240349

PROBLEM: BBC5 daemon fails to start on a system with OVPM 3.x (PerfView) installed. The default port for pvalarm, the PV alarm management daemon, is 383, which conflicts with the default port for BBC communication broker daemon ovbbccb.

WORKAROUND: Choose a different port for pvalarm.

QXCR1000287213

PROBLEM: Installation of OVPA 4.5 on a system having OVO 7.x agent installed continuously sends the following alert message to OVO management server.

```
BBC Local Location Broker of subagent 0 aborted; process did an exit 77.  
The process has been started for '6' times in the last '0 d 00:00:50'  
already. (OpC30-1198).
```

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

```
# opcagt -kill  
# opcagt -start
```

QXCR1000287583

PROBLEM: Installation or un-installation of OVPA 4.5 on a system with OVO 8.x running in non-root user mode switches the user id back to root for the `ovc`, `coda`, and `ovbbccb` processes.

WORKAROUND: Run `ovswitchuser.sh` to fix the above problem.

QXCR1000237437

PROBLEM: On systems that have OVO 8.x agent and OVPA 4.5 installed, un-installation of OVO 8.x agent is left incomplete.

WORKAROUND: Hotfix is available through HP Support.

QXCR1000237478

PROBLEM: On systems that have OVO 8.x agent and OVPA 4.5 installed, un-installation of OVO 8.x agent stops `ovc`, `ovbbccb`, and `coda`.

WORKAROUND: Hotfix is available through HP Support.

QXCR1000282671

PROBLEM: On systems that have OVO 8.x agent and OVPA 4.5 installed, if you stop OVO 8.x agent using command `opcagt -stop`, `coda` is also stopped.

WORKAROUND: Hotfix is available through HP Support.

QXCR1000282671

PROBLEM: Some of OVPA or OVO 8.x daemons may fail to start on a Solaris system with both OVO 8.x agent and OVPA 4.5 installed, with the error message "No space left on device".

WORKAROUND: Increase the kernel's limit for semaphore.

QXCR1000291031

PROBLEM: In an HTTPS based secure data communication environment, OVPM 5.0 encounters a timeout condition while communicating with OVPA 4.5, if OVPA 4.5 is additionally configured for single port communication. Refer to the section "Communicating Across a Firewall" in the *HP OpenView Performance Agent for Sun Solaris Systems Installation & Configuration Guide* (ovpainst.pdf) for details about single port communication and secure communication.

WORKAROUND: When you wish to enable HTTPS data communication, use a fixed second port number instead of configuring `coda` for single-port communication. If you do not configure single-port data communication, then by default, OVPA's `coda` process will use a dynamically chosen second port (in addition to port 383 which is used by the `ovbbccb` communication broker process). This use of a dynamic port can be difficult when connecting to OVPA remotely through a firewall, because you will not know what firewall ports to open. Instead of configuring single-port data communication along with HTTPS, choose a port other than 383 that you will open in the firewall and then configure OVPA to use it for `coda` by typing the following commands:

```
a  ovconfchg -ns coda.comm -set SERVER_PORT <portnumber>
b  ovconfchg -ns coda.comm -set SERVER_BIND_ADDR 0
c  ovpa restart server
```

Documentation Errata

None.

Software Version Information and File Placement Plan

Version Information

For a summary of version strings for the major executable components of OV Performance Agent for Sun Solaris systems, use the following command:

```
/opt/perf/bin/perfstat -v
```

File Placement

Release Notes:

```
/opt/perf/ReleaseNotes
```

Executables including UI programs, daemons, and scripts:

```
/opt/perf/bin/
```

Shared component executables

/opt/OV/bin/

Examples (refer to the README file in the directory for more information):

/opt/perf/examples/

Man pages:

/opt/perf/man/man1/

/opt/perf/man/man3/

/opt/perf/man/man4/

Printable documents:

/opt/perf/paperdocs/ovpa/C/

/opt/perf/paperdocs/arm/C/

Default configuration and template files:

/opt/perf/newconfig/

Product configuration and status files:

/var/opt/perf/

/var/opt/OV

Product binary data and internal-use files (created during and after installation):

/var/opt/perf/datafiles/

/var/opt/OV

Development include files:

/opt/perf/include/

Library files:

/opt/perf/lib/

/opt/perf/lib/lv/

/opt/perf/lib/sparc_64/

Online help files:

/opt/perf/help/ovpa/

Startup and shutdown scripts:

```
/etc  
/etc/default
```

Local Language Support

Localized HP OpenView Performance Agent is not available for Sun Solaris systems.

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 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 access levels, go to:

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

To register for an HP Passport ID, go to:

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

Online Documentation

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.
- 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.



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<http://www.adobe.com>

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