Operations Agent

Software Version: 12.05

For the Windows®, HP-UX, Linux, Solaris, and AIX operating systems

Release Notes

Document Release Date: December 2017

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Hewlett Packard Enterprise

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This product includes cryptographic software written by Eric Young (eay@cryptsoft.com).

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/).

This product includes software written by Tim Hudson (tjh@cryptsoft.com).

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Operations Agent Release Notes

For the Windows ®, Linux, HP-UX, Solaris, and AIX operating systems.

Software version: 12.05

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This document provides an overview of the changes made to the Operations Agent. You can find information about the following:

- What's New in this Release

- Deprecations

- Known issues, workarounds, and limitations

For the list of supported hardware, operating systems, and integration with other products, see the Support Matrix.

What's New in this Release?

12.05

This release of Operations Agent introduces Streaming Edition of Operations Agent and also includes select defect fixes.

Streaming Edition of Operations Agent

Streaming Edition of Operations Agent is a light weight variant of Operations Agent that allows us to stream logs and metrics to configurable destinations.

The Operations Agent media provides you with the streaming agent package. You can install streaming agent on Linux x64 and Windows x64 nodes. For more information, see the *Operations Agent Concepts Guide*.

Enhanced Operations Agent

Operations Agent 12.05 is enhanced with the following fixes:

Change Request	Description
QCCR8D84427	Enhance error handling in oarepo.ps1 script.
QCCR8D84761	Operations Agent should use the LVM libraries of the OS.
QCCR8D95575	All the Operations Agent processes should be up and running after OS reboot.
QCCR8D95946	hpsensor executable must be replaced under "C:/Program Files/HP/HP BTO Software/hpcs/" location during installation or uninstallation of hpsensor hotfix in Windows platform.
QCCR8D95993	The OS for Windows 2016 is showing as Windows Technical Preview in OMi.
QCCR8D96375	perfstat.exe -o; returns perfalarm/perfalarmsvc status, though not configured. This causes unnecessary alerts from Selfmon.

QCCR8D96383	opctrapi obtains incorrect value from net.core.rmem_max when SNMP_SERVER_RECV_BUF is set to OS_MAX.
QCCR8D97179	Agent by Version chart in Health View dashboard is not displaying 12.04 version after the Health View upgraded from 12.03 to 12.04.
QCCR8D97320	OvPerl component upgrade gets skipped during 12.04 Agent upgrade from earlier versions through AIR YUM deployment mechanism.
QCCR8D97656	hpsensor and oacore services are running on Windows managed nodes.
QCCR8D97612	Ownership of the folder /var/opt/OV is reset after installing Operations Agent.
QCCR8D97118	SWEET32 vulnerability - hpsensor vulnerable even with "!DES:!3DES" in SSL_CIPHER_LIST.
QCCR8D97123	ECS crashing server after upgrade to OA 12.03 on OMW.
QCCR8D96957	CODA process randomly becomes unresponsive and SiS cannot connect to it.
QCCR8D96510	hpsensor and perfd abort on his SuSE 12 SP2 under non-root.
QCCR8D96509	ovcodautil command does not list all instances of a class from agentless datasource.
QCCR8D95278	opcmona aborts on AIX 7.2.
QCCR8D94194	UDP buffer size configuration does not work on RHEL 7.
QCCR8D89795	netsnmp log file should be optional using a configuration variable.
QCCR8D88452	The library libopc_r.so should not be downgraded if a higher version of Operations Agent is installed.
QCCR8D96685	opctrapi cannot evaluate patterns with hexadecimal values in varbind.
QCCR8D96554	Custom attribute needs to be resolved correctly.

12.04

This release of Operations Agent features Open Source Components upgrades with improved Resident Memory usage (RSS) with SQLite 3.18.0 on Linux, new metrics are added to calculate virtual memory utilization on AIX servers and also includes selected defect fixes.

Upgraded Open Source Components

The following open source components are upgraded to newer versions with Operations Agent 12.04:

- zlib 1.2.11

- Libcurl 7.54.0

- SQLite 3.18.0

For more information, see the *Open Source and Third Party Software License Agreement*.

Virtual Memory Metrics for AIX

Operations Agent is now enhanced with new metrics to calculate virtual memory utilization on AIX servers. The following metrics are added:

1. GBL_MEM_ACTIVE_VIRT_PHYS_UTIL

   The percentage of total virtual memory active at the end of the interval as calculated by considering the total physical memory as the total virtual memory. Active virtual memory is the virtual memory associated with processes that are currently on the run queue or processes that have executed recently. This is the sum of the virtual memory sizes of the data and stack regions for these processes.

2. GBL_MEM_ACTIVE_VIRT_UTIL

   The percentage of total virtual memory active at the end of the interval. Active virtual memory is the virtual memory associated with processes that are currently on the run queue or processes that have executed recently. This is the sum of the virtual memory sizes of the data and tack regions for these processes.

   Important: On **Linux**, upgrade to Operations Agent 12.04 from **12.02** or **12.03** using **Yum deployment** has issue with Perl component.

   This issue is applicable only for Yum deployment.

   To resolve this issue, manually update the Perl component to version 5.16.017 after upgrading Operations Agent to 12.04.

   For more information, see QCCR8D97320.

Enhanced Operations Agent

Operations Agent 12.04 is enhanced with the following fixes:

No	Change Requests	Description
1	QCCR8D95057	DSI logging of empty values is not working.
2	QCCR8D94922	opctrapi is aborting when forwarding events from NNMi to BSM/OMi.
3	QCCR8D94917	OPC_NODENAME need to work as intended when using LOCAL_NODE_NAME in the xpl.net.
4	QCCR8D94743	Some of the Operations Agent processes are not getting started post OS reboot.
5	QCCR8D94665	OPC_INT_MSG_FLT variable filtered health view messages as they have message group named OpC.
6	QCCR8D94285	ovcodautil aborts frequently in sitescope integration environment.
7	QCCR8D94048	Security fix KM02681808 blocks event channel in BSM/OMi.
8	QCCR8D89812	opcgeni and oacore processes are aborting when the BSMC for Nagios metric policy is enabled.
9	QCCR8D89787	oacore aborts when reading data file with non ASCII characters on localized Windows.
10	QCCR8D89664	watchhpcs.pl script is not working when selfmon is disabled.
11	QCCR8D89638	AHSCollector.exe on OMi10.12 aborts every 5 minutes.
12	QCCR8D89624	opcmona process generates false alerts.
13	QCCR8D89594	Few sub agents are not running and opcagt.cat getting deleted during reboot.
14	QCCR8D89169	Health view reports false message that "opcmona: Policies not responding".
15	QCCR8D88939	GBL_SYSTEM_TYPE and GBL_SYSTEM_ROLE not correctly identified on physical machine.
16	QCCR8D88193	HPUX11.31 midaemon core dump with the error "Unable to allocate MI shared memory, not enough space."
17	QCCR8D87814	Option to disable LVM collection in midaemon.
18	QCCR8D87174	GlancePlus for Linux : GBL_DISK_UTIL/GBL_DISK_UTIL_* value is 0.
19	QCCR8D94425	Windows event log is reading from beginning even though the policy is set to read from last position.
20	QCCR8D94362	Create DBSPI datasources failed with "unable to connect to coda 87".
21	QCCR8D94126	The default poilcy "OMi Event Receiver Logfile" reports error when log is rotated.

22	QCCR8D94122	agtrep is causing bugcheck server crash.
23	QCCR8D89789	opcmsga aborts in RHEL7.2.
24	QCCR8D94903	Uninstallation of hotfix fails on Windows.
25	QCCR8D94878	Uninstallation of hotfix HFWIN12222 fails on Windows.
26	QCCR8D94463	opctrapi should handle additional scenarios in reconfig process.
27	QCCR8D89838	Enhance Operations Agent installation to support platform Ubuntu17.04_x64.
28	QCCR8D89753	Enhance Operations Agent installation to support platform SLES-12-SP2_x64.
29	QCCR8D86324	Enhance Operations Agent installation to support Amazon Linux.
30	QCCR8D87874	Request for new virtual memory metric for AIX.
31	QCCR8D97366	OVOA 12.04 installation failed on RHEL 5.10 "RSA/SHA256 signature: BAD".
32	QCCR8D97368	HPOvBbc from HPE_OA_12.04_Linux.iso is not signed.

12.03

Installation Enhancement

Operations Agent is enhanced with the ability to deploy different versions of Operations Agent on a single or multiple nodes on Windows or Linux operating systems using HPE Operations Orchestration. This feature is supported with Operations Agent version 12.02 and above.

For more information, see the *HPE Operations Agent Installation Guide: Installing HPE Operations Agent Using HPE OO* available on HPE ITOM Marketplace.

Performance Enhancement

- **Log Streaming**

Operations Agent is now enhanced to collect and stream logs to multiple targets, for example, Operations Bridge Analytics. Operations Bridge Analytics can use these logs to predict trends and pinpoint issues in your IT environment.

Log Streaming enables you to collect structured logs from multiple applications and forward them to the desired targets.

For more information, see the *OMi Administration Guide*.

> **Note:** Log Streaming is supported on Windows and Linux operating systems.

- **Other**

Operations Agent is now enhanced with the ability to disable data logging in the Operations Agent local data store. For more information, see the chapter *Configuration Variables of the HPE Operations Agent* in the *HPE Operations Agent Reference Guide*.

Enhanced Operations Agent

The current version of Operations Agent is enhanced with the following fixes:

No	Change Requests	Description
1	QCCR1A189565	Negative values observed for the metric GBL_CPU_TOTAL_UTIL on the new Informatica systems HP-UX 11.31.
2	QCCR1A189220	If case sensitive is disabled in the log file entry policy, **opcle** aborts.
3	QCCR1A189945	Even when BBC server is not available, URI registration is displayed successful with JBBC.
4	QCCR1A189944	LCORE-Java tracing is not working.
5	QCCR1A190069	Java -jar xpl.jar should show xpl version.
6	QCCR1A189955	Operations Agent sending ICMP packages to reverse IP address of Operations Manager.
7	QCCR1A189979	Policy condition not matching correctly for few traps.
8	QCCR1A189980	ovdeploy command results in PROXY errors.
9	QCCR1A189165	Glance showing incorrect SWAP information when there are two SWAP files.
10	QCCR1A189230	On Linux, SI-DiskCapacityMonitor policy is alerting non existent file systems that are not present in df -h output.

11	QCCR1A189347	Performance Manager is not able to gather data from nodes.
12	QCCR1A189851	**opcle** process consuming large amount of memory.
13	QCCR1A190187	Operations Agent not running on AIX non-root mode while the installation folders are SymLink'd to a different location.
14	QCCR8D88670	Performance Manager isunable to connect to nodes through proxy server.
15	QCCR8D87911	After installing the hotfix HFWIN_12116, OvCtrl component is not updated in ovdeploy -inv -includeupdates.
16	QCCR8D87356	Opening the server port or the lookup for the bind address failed.
17	QCCR8D87304	Failed to launch the ComputeSensorWatchDog Task on W2k12 R2 system.
18	QCCR8D87155	On Linux, PROC_PROC_CMD is over 4096 characters.
19	QCCR8D86992	During upgrade from Operations Agent 11.xx to Operations Agent 12.xx, /var/opt/perf/datafiles/log* does not get saved in /var/opt/OV/tmp/BackUp/.
20	QCCR8D86010	FS_DEVNAME metric has a limitation of 40 characters in logging data.
21	QCCR8D89127	Operations Agent third party software, Apache Axis is no longer used. The license.txt needs to be removed from the media.
22	QCCR8D87816	fstype when set for INCLUDE list, does notwork as expected.
23	QCCR8D87753	On Solaris and AIX, filesystem filtering 'fstype' configuration in parm file does not work as expected under commented or default scenario.
24	QCCR8D87436	The resolved hostname is empty in few scenarios.
25	QCCR8D87214	Misleading error messages while registering Operations Agent 12.02 pakages on Operations Manager for Linux.
26	QCCR8D87074	12111 hotfix installation is failing on 11.14 to 12.01 upgraded Linux environment.
27	QCCR8D83751	Operations Agent 12.00 installation is failing due to Perl dependency of HPOvPerfAgt package.
28	QCCR8D83309	Non-root configuration modifies file permissions in root directory.

12.02

Performance Updates

Custom data logging is enhanced with the following capabilities:

- Added a Perl API to log strings.

- Raw data logging support in DSI.

- Capability to customize DB size for custom data classes added.

- Metric label capacity increased to 48 characters.

- Performance of Perl APIs used for custom data logging is optimized and improved.

For more information, see the section *Logging Custom Data* in the *Operations Agent User Guide.*

Install Notification Enhancement

While installing or upgrading Operations Agent if the OMi server is not active, Operations Agent is enhanced to send a install notification to the OMi server when the server is restored.

For more information, see the chapter *Troubleshooting* in the *Operations Agent and Infrastructure SPIs Installation Guide*.

Security Enhancements

The following security enhancements are available with Operations Agent 12.02:

- OpenSSL version upgrade. The upgraded version for OpenSSL is 1.0.2j with FIPS 2.0.12.

- 7-Zip version upgrade. The upgraded version for 7-Zip is 16.02 with Perl 5.16.016.

12.01

Extended Collection Builder and Manager (ECBM) Support

Performance Collection Component provides access to Windows performance counters that are used to measure system, application or device performance on your system. You can use the Extended Collection Builder and Manager (ECBM) to select specific performance counters to build data collections.

For more information, see the chapter *Building Collections of Performance Counters on Windows* in the *Operations Agent User Guide.*

> **Note:** ECBM feature is available in Operations Agent 11.14 and Operations Agent 12.01. Direct upgrade from Operations Agent 11.14 to Operations Agent 12.01 is applicable. This feature is not available in Operations Agent 12.00.

Metric Streaming

Operations Agent enables you to log custom metrics into the Metrics Datastore along with the default system performance metric classes.

With Operations Agent 12.01, custom and system performance metrics are available for streaming by using the Metric Streaming functionality. You can configure the metric streaming data collection by using the **Metric Streaming Configuration** policy.

Metrics Streaming enables you to stream metrics data to a target subscriber (For example: Performance Engine) and use the data for graphing and analysis.

For more information, see the chapter *Using Metric Streaming* in the *Operations Agent User Guide.*

Operations Agent Health View Authentication

With Operations Agent 12.01 support for authenticated access to Operations Agent Health View is available. User authentication is provided using Microsoft Active Directory or OpenLDAP. You can configure LDAP from the Dashboard View of the Operations Agent Health View.

For more information, see the chapter *Installing Operations Agent Health View* in the *Operations Agent User Guide: Health View*.

SNMP Trap Interceptor (opctrapi) Enhanced to use NETSNMP Logging

The **opctrapi** process logs the trace messages for SNMPv3 traps. These messages do not provide sufficient information required to troubleshoot problems related to security parameters associated with the incoming SNMPv3 traps.

To resolve this issue, the **opctrapi** process is enhanced to use NETSNMP logging. The `netsnmp.log` file contains comprehensive information about errors and incoming traps that can be used to troubleshoot problems.

For more information, see *Enabling opctrapi to Use NETSNMP Logging* in the *Operations Agent User Guide.*

Installer Enhancements

The following installer enhancement are available with Operations Agent 12.01:

- RPM format support for installing hotfixes on Linux.
- Single depot package for HP-UX installation.

For more information, see the *Operations Agent and Infrastructure SPIs Installation Guide*.

New Metrics Introduced

BYHBA Metrics on Linux and Windows

BYHBA metrics are now available on Linux, Windows, and HP-UX systems.

BYCORE Metrics on HP-UX

BYCORE metrics are now available on Linux, Windows, HP-UX, and Solaris systems.

PRM Metrics on HP-UX

PRM (Process Resource Manager) metrics on are now available on HP-UX systems.

Security Enhancements

The following security enhancement are available with Operations Agent 12.01:

- FIPS 140-2 compliance for Java components.

- OpenSSL version upgrade. The upgraded version for OpenSSL is 1.0.1s with FIPS 2.0.12.

12.00

- Installer Enhancements

- Performance Updates

- Other Enhancements

- Operations Agent Health View

- x86 Virtualization Technology Evolution from Operations Agent to vPV

Installer Enhancements

You can use one of the following methods to simplify the deployment and installation of the Operations Agent in large environments:

- **Installation of Operations Agent using the Agent Installation Repository**

  In a typical environment, there are multiple versions of the Operations Agent deployed on a combination of operating systems. You can install **Agent Installation Repository** on Linux operating system and deploy different versions of Operations Agent available in the repository on Windows and Linux operating systems.

  Agent Installation Repository can be hosted in your environment by using any one of the following:

  - Standalone Agent Installation Repository

    Agent installation repository can be installed on a Linux machine as a standalone installer to set repository on any Linux host. The same repository can act as a **Yum repository** for the Operations Agent and LCore packages.

  - Agent Installation Repository as a Virtual Appliance

    Agent Installation repository is available as a Virtual Appliance and can be deployed in VMware environment.

  For more information, see the chapter *Installing Operations Agent using Agent Installation Repository* in the *Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide.*

- **Installation of Operations Agent using the Puppet Environment**

You can install the Operations Agent using **Puppet** in an environment where **Puppet Master** and **Puppet Clients** are configured.

Operations Agent packages are stored in the Agent Installation Repository. The Puppet module available on the puppet master fetches the Operations Agent packages or zip file from the Agent Installation Repository and deploys the Operations Agent packages on the puppet clients (Linux nodes).

For more information, see the chapter *Installing Operations Agent using the Puppet Environment* in the *Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide.*

- **Installation of Operations Agent using Server Automation**

    You can deploy the Operations Agent using the Server Automation. The target where you are installing the Operations Agent must always have the Server Automation agent installed on it. For more information, see the chapter *Installing Operations Agent Using Server Automation* in the *Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide.*

- **Installation of Operations Agent using single step installer**

    The Operations Agent 12.00 installer enables you to install the base version of the Operations Agent 12.00 along with patch and hotfix in a single step. The installer first installs the base version of the Operations Agent 12.00 on the system, followed by patch and any available hotfix. For more information on single step installation, see the chapter *Installing Operations Agent (Full and Differential Packages) using Single Step Installer* in the *Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide.*

- **Installation of Operations Agent using Profile file**

    With the Operations Agent 12.00, all the install time configurable values must be added in the profile file under the new namespace nonXPL.config. The configurable values added under the namespace nonXPL.config will not be updated in the xpl.config settings.

    For more information, see the chapter *Installing Operations Agent using Profile File* in the *Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide*.

- **Installation of Operations Agent using ZIP media**

    You can create a ZIP media and then install the Operations Agent manually on the node. For more information, see the chapter *Reducing the Installation Time* in the *Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide.*

Performance Updates

Data collection, data logging, and monitoring capabilities of the Operations Agent is updated with the following features:

Metric Datastore

With the Operations Agent 12.00, multiple proprietary datastores such as CODA, SCOPE and DSI have been consolidated into a single Relational Database Management System (RDBMS) based datastore using SQLite. The SQLite datastore enables easy maintenance of data and data recovery with minimal loss in case of corruption.

The CODA and Scope processes (`scopeux` and `scopent`) are consolidated into a single process called the **oacore** process. The **oacore** process provides both read and write interface for system performance and custom data.

You can use the configuration variables to configure the default behavior of the **oacore** process. For more information about configuration variables, see *Configuration Variables for the oacore Process* section in the chapter *Configuration Variables of the Operations Agent* of the *Operations Agent Reference Guide.*

For more information about Metric Datastore, see the *Operations Agent User Guide.*

> **Note:** All applications on the Operations Agent 12.00 will function only if the **oacore** process is running.

Controlling Disk Space Used by Database Files

The Performance Collection Component provides automatic management of the database files. For every class of data that is logged into the datastore, class specific database files are created.

Database files that store the default performance metric classes are rolled over when the maximum size specified in the **parm** file is reached. If the roll over size is not specified in the **parm** file, database files are rolled over when the maximum size of 1 GB is reached.

The maximum size of the database files that store the custom data is set to 1 GB by default. This size cannot be configured. These database files are rolled over when the maximum size of 1 GB is reached.

During a roll over, 20 percent of oldest data is removed from the database files.

For more information about controlling disk space used by database files, see the chapter *Managing Data Collection* in the *Operations Agent User Guide.*

Proxy Datasource

You can host only one datasource in read-only mode. In the proxy mode, data logging to the Metrics Datastore is completely disabled. For more information about hosting database files from a different system as datasource, see the chapter *Comparing Operations Agent 12.00 with Earlier Versions* in the *Operations Agent User Guide.*

Extended Collection Builder and Manager

This feature is not supported with the Operations Agent 12.00.

Updated parm File

The **parm** file contains instructions for the data collector to log specific performance measurements. The **parm** file enhancements are as follows:

Parameter	Description
javaarg	This parameter is valid on both Windows and UNIX platforms.
cachemem	On AIX machines, you should set the cachemem parameter to **free (f)** to match with topas commands. On Solaris machines, cachemem parameter is applicable only for Adaptive Replacement Cache (ARC) for ZFS. Cachemem parameter is set to **user (u)** by default. You can set this parameter to **free (f)** in the **parm** file and then restart the data collector. GBL_MEM_UTIL excludes ZFS ARC cache when cachemem parameter in the **parm** file is set to **free**.
Scope transactions	With the Operations Agent 12.00, Scope transactions are not logged and the Scope_Get_Process_Metrics and Scope_Get_Global_Metrics are also not logged.
Size	The size of the database files that store the *default performance metrics class*, depends on the maximum size specified in the **parm** file. If the size specification in the **parm** file is changed, **oacore** detects it *only* during startup. The database files for a class are rolled over, when the maximum size specified in the **parm** file is reached. During rollover, 20 percent of oldest data is removed. If *size* is not specified in the **parm** file, database files are rolled over when the maximum size of 1 GB is reached.

	The maximum size of the database files that store the *custom data* is set to 1 GB by default. This size cannot be configured.
	For more information about controlling disk space used by database files, see the chapter *Managing Data Collection* in the *Operations Agent User Guide.*
Mainttime	This parameter is not supported.
Days	This parameter is not supported.
Maintweekday	This parameter is not supported.
proccmd	This parameter is valid on all platforms. The `proccmd` parameter enables logging of process commands to the datastore.
	By default, the value of this process is set to 0 and the logging of process commands is disabled. To enable logging of process commands, set the value of this parameter to 1.
	Logging of the `proccmd` parameter is turned on when the value of this parameter is greater or equal to 1. The length of the process command that is logged is always 4096 irrespective of the value specified in this parameter.

For more information about parm file, see *Using the parm File* section in the chapter *Managing Data Collection* in the *Operations Agent User Guide.*

New Processes

The following processes are added to the Operations Agent 12.00:

- **oacore**

  The CODA and **scope** processes (scopeux and scopent) are consolidated into a single process called **oacore**. The **oacore** process provides both read and write interface for system performance and custom data.

  The **oacore** process is invoked by the `ovpa` script. Based on the instructions provided in the **parm** file, the **oacore** data collector continuously collects performance and health data across your system and stores the collected data in the Metrics Datastore.

- **hpsensor**

  The `rtmd` process is replaced with the `hpsensor` process. The XPL configurations for `rtmd` are not backward compatible and will not work after you upgrade Operations Agent from 11.xx to 12.00. The `hpsensor` process provides similar XPL configurations to enforce security (SSL).

  The `hpsensor` process helps in accessing real-time performance metrics, through a secure communication channel, locally or remotely.

Updates in the Command Line Tools

Operations Agent 12.00 supports only command line mode to run the *Utility* and *Extract* program. Interactive mode to run *Utility* and *Extract* commands is not supported with the Operations Agent 12.00.

Updates to the Extract Tool

The *Extract* program is used to retrieve and analyze the historical data logged in the datastore of the Operations Agent. The Extract program performs the export function. It reads data from datastore and exports the results to output files in the ASCII format.

During an upgrade from the Operations Agent version 11.xx to 12.00, data stored in the CODA database files, SCOPE log files, and the DSI log files are retained in read-only mode. Extract program can read data from both log file based datastore and Metrics Datastore.

The *Extract* program enhancements are as follows:

- A new metric class *Host Bus Adapter (HBA)* is added to export the HBA data.

  Extract Command Options

-h	Specifies the HBA detail data to be exported.
-H	Specifies the HBA summary data to be exported.

- The metric class *core* is added to export the bycore data.

  Extract Command Options

-x	Specifies the core detail data to be exported.
-X	Specifies the core summary data to be exported.

For more information about Extract Program, see the chapter *Using the Extract Program* in the *Operations Agent User Guide.*

Updates to the Utility Tool

The *Utility* program is a tool for managing and reporting information on the collection parameters (`parm`) file and the alarm definitions (`alarmdef`) file.

Changes to the *Utility* program are as follows:

- Resize command is not supported.

- Following Utility commands are not supported:

  `start, stop, exit, guide, logfile, menu, sh,` and `show`.

  For more information about Utility Program, see the chapter *Using the Utility Program* in the *Operations Agent User Guide.*

Enhanced Custom Data Logging

The process of custom data logging is enhanced with DSI and Submittal API.

> **Note:** It is recommended that you use API to log custom data into the Metrics Datastore.

Enhanced Data Source Integration

Data collected by the DSI process is logged into Metrics Datastore.

> **Note:** For DSI to collect custom data, the **oacore** process must be running.

To preserve backward compatibility, the command line continues to support the logfile argument. The logfile name is extracted from the following path and it is considered as the datasource name:

`sdlcomp <class specication file> <logfile name>`

When you upgrade the Operations Agent from version 11.xx to 12.00, metadata or the format for storing data is copied from the old logfiles to the Metrics Datastore.

For more information about the DSI program, see the chapter *Overview of Data Source Integration* in the *Operations Agent User Guide.*

Application Programming Interface

The process of custom data logging has been simplified with the use of APIs. You can use APIs to seamlessly log custom data into the Metrics Datastore. You can use APIs to log 64-bit data types and multi-instance data into the datastore.

> **Note:** You can use APIs to log data into the Metrics Datastore only if the **oacore** process is running.

For more information, see the chapter *Using Application Programming Interface* in the *Operations Agent User Guide.*

Baselining

Baselining is a process to compute and provide reference values based on the historical data stored in the Metrics Datastore. To compute baseline data for a specific time period, metric data collected at corresponding time periods from previous weeks is used. Baseline data is computed at the end of every hour and is stored in the Metrics Datastore.

Baseline data is used to:

- Provide reference values to monitor daily performance

- Provide reference values to analyze performance trends

- Dynamically set optimal threshold values to analyze the pattern of resource utilization

Baseline data computed by the Operations Agent is used by the SI-AdaptiveThresholdingMonitor policy to monitor performance and resource utilization.

Baseline data is used along with the deviations (N) set in the SI-ConfigureBaselining Policy or SI-AdaptiveThresholdingMonitor Policy to enable adaptive monitoring or adaptive thresholding. Adaptive thresholding helps you to dynamically calculate the optimal threshold values.

For more information about baselining, see in the chapter *Overview of Baselining* in the *Operations Agent User Guide.*

Other Enhancements

Some of the other enhancements in the Operations Agent 12.00 are as follows:

Enhanced SNMP Trap Interceptor

The SNMP trap interceptor can collect SNMP traps originating from remote management stations or SNMP-enabled devices, and then can generate appropriate events based on the configuration. The SNMP trap interceptor enhancements are as follows:

- The **opctrapi** process is configured to intercept SNMPv1, SNMPv2, SNMPv3 traps and inform messages.

- The **opctrapi** process can intercept the SNMP traps based on the object ID of the varbind (OID) or position of the varbind.

- The monitoring agent component (**opcmona**) can be modified to perform SNMPv3Get by adding specific parameters to the Measurement Threshold policy.

> **Note:** The SNMP_SESSION_MODE configuration variable is not supported with the current version.

For more information, see the chapter *Working with the Operations Agent* in the *Operations Agent User Guide.*

Perfalarm

On a fresh installation of the Operations Agent version 12.00, the alarm generator server (`perfalarm`) is disabled by default.

To enable `perfalarm` before installing the Operations Agent, set the variable **ENABLE_PERFALARM** to **TRUE** or **true** in the profile file and then install the Operations Agent with the profile file.

If you are installing Operations Agent without the profile file, copy the **alarmdef** file from `/opt/perf/newconfig` to `var/opt/perf/` to enable **perfalarm.**

To enable `perfalarm` after installing the Operations Agent, use the command line options.

If you upgrade from the Operations Agent version 11.xx to 12.00, `perfalarm` continues to function as set previously.

For more information about enabling `perfalarm`, see the chapter *Installing Operations Agent using Profile File* in the *Operations Agent and Operations Smart Plug-ins for Infrastructure Installation Guide*.

Operations Agent Health View

Operations Agent Health View is a health monitoring tool that provides a quick overview of the health of the Operations Agent.

Operations Agent Health View plays an important role especially in a complex environment that has many Operations Agents deployed on multiple nodes. For example, on a specific managed node if any of the health or policy parameters fail or if any of the processes have issues, then you will not receive alerts or messages from that managed node.

Operations Agent Health View enables you to quickly identify issues in a complex environment with several managed nodes.

> **Note:** You can set the OM Management Server as the Health View Server or you can install Operations Agent Health View on a server other than the OM Management Server.

Operations Agent Health View offers the following features:

- Provides a consolidated dashboard that shows the health of all the Operations Agents configured with Health View.

- Allows you to drill-down into each managed node and view the list of Operations Agent processes and resources that are being used.

- Allows you to drill-down into each Operations Agent process and identify issues related to health and policy parameters.

x86 Virtualization Technology Evolution from Operations Agent to vPV

Operations Smart Plug-in for Virtualization (VI SPI) and OMi Management Pack for Infrastructure (OMi MP for Infrastructure) users can start to use a monitoring only edition of Virtualization Performance Viewer (vPV) for x86 Virtualization technologies such as VMware vSphere, Microsoft Hyper-V, KVM, and Xen.

HPE announces the following updates with Operations Agent and Operations Smart Plug-ins for Infrastructure version 12.00:

- Operations Agent Virtual Appliance is discontinued
- VI SPI does not support x86 Virtualization

For x86 virtualization technologies, you can continue to use the VI SPI and the virtualization component of the OMi Management Pack for Infrastructure till the obsolescence of Operations Agent 11.1x. For non-x86 virtualization technologies (HPVM, AIX, Solaris), you can continue to use the VI SPI and VI Management Pack.

Some of the key benefits that you get with the technology evolution to vPV (vPV is rebranded as Cloud Optimizer from version 3.00) are:

- Improved scalability and interoperability
- Improved coverage of metrics

While the technology evolution entitles you to an equivalent capability replacement in vPV (vPV is rebranded as Cloud Optimizer from version 3.00), you can get enhanced performance troubleshooting

and capacity optimization of physical, virtual, and cloud technologies with the premium edition of vPV (vPV is rebranded as Cloud Optimizer from version 3.00).

For more details visit https://saas.hpe.com/en-us/software/cloud-optimizer

Enhanced Operations Agent

The current version of Operations Agent is enhanced with the following features:

No	Enhancement Requests	Description
1	QCCR1A70322	The SNMP trap interceptor **opctrapi** is enhanced to support processing of SNMP traps based on the varbind object id.
2	QCCR1A95853	GBL_MAC_ADDR_LIST and BYNETIF_MAC_ADDR metrics are added on all platforms to implement MAC address details.
3	QCCR1A104981	CLUSTER_LOCAL_NODENAME is set automatically in the conf.cluster namespace while installing Operations Agent on a cluster node.
4	QCCR1A119191	HBA metrics is logged on HP-UX platforms.
5	QCCR1A129081	With the current release, **opctrapi** can intercept both SNMPv3 traps and inform messages.
6	QCCR1A132039	The maximum limit of the `proccmd` parameter in **parm** file is increased to 4 million.
7	QCCR1A138558	`OvCtrl` daemon (`ovcd`) logs the process details such as process name and PID into the system.txt file whenever a process is started or stopped.
8	QCCR1A149755	Best Practises for Installation and Deployment of Operations Agent is documented in the Installation Guide.
9	QCCR1A145541	Length of PROC_PROC_NAME is increased from 16 to 255 characters.
10	QCCR1A147550	Enhanced list of file system metrics are logged into the Metrics datastore.
11	QCCR1A147667	Regardless of the language of the Operating System, the Operations Agent is set to English if you set IGNORE_LOCALE=True in the profile file.
12	QCCR1A148589	Operations Agent is enhanced to support 10 GB Network card.
13	QCCR1A152747	**opctrapi** is enhanced to do the following: • Intercept both SNMPv3 trap and inform messages • Intercept SNMP traps based on the object ID of the varbinds (OID) along with the position

		• Convert OID to its textual representation
14	QCCR1A155140	Logical Volume metrics are supported on Linux Platform.
15	QCCR1A157392	Enhanced the documentation for the `cachemem` parameter.
16	QCCR1A159506	Operations Agent is enhanced to support 64-bit mode on HP-UX systems.
17	QCCR1A168188	Operations Agent 12.00 supports TLS version 1.2 for HTTPS communication.
18	QCCR1A169444	stacktrace tool does not overwrite `/opt/OV/OMU/adminUI/conf/servicemix/wrapper.conf` file.

19	QCCR1A169894	You can run the following commands to exclude `perfstat.tar.z` output file from the `oa_data_collector.sh` output:
		
		On Windows :
		
		`oa_data_collector_win.bat ADC EXCLUDE PCC`
		
		On HP-UX/Linux/Solaris:
		
		`oa_data_collector.sh -asp -e pcc`

20	QCCR1A169895	`oa_data_collector.sh` script includes the following files while creating `oa_data_collector.zip`: • " /etc/resolv.conf" • "/etc/nsswitch.conf " • "/etc/hosts " • "/etc/networks"
21	QCCR1A169897	Operations Agent installation message on the console contains the version (base, patch or hotfix)information in the banner.
22	QCCR1A172620	SNMP trap interceptor is enhanced to intercepts the SNMP traps based on the object ID of the varbind.
23	QCCR1A173297	On OM for Windows management server, the OvPmad database consistency check during registration is integrated with oainstall.vbs scripts and is triggered by default with the -i -m command option. If there is a corruption during registeration, an error is reported and registeration is skipped for that platform.
24	QCCR1A174024	The pre-check functionality of the Operations Agent installation is enhanced.
25	QCIM1A174134	SNMP trap interceptor (**opctrapi**) is enhanced to do the following: • Intercept both SNMPv3 traps and inform messages • Intercept SNMP traps based on the object ID or position of varbinds

		• Convert OID to its textual representation
26	QCCR1A174615	Along with the operations components, Operations Agent is enhanced to monitor performance components such as **perfd, ttd, midaemon, glance** and **oacore**. Health parameters are available for **perfd, perfalarm** and **oacore**.
27	QCCR1A174978	autofs filesystems are reported as autofs (not as Network File System) and all the filesytem metrics are collected on these systems.
28	QCCR1A175002	Infrastructure SPI policy SI-ZombieProcessCountMonitor policy (Measurement Threshold) is added to monitor the number of zombie processes.
29	QCCR1A175032	Service and Process monitoring polices and Schedules task polices will support short term and long term peak behavior.
30	QCCR1A175188	The installation time is reduced significantly on all platforms and the single step installer enables you to install the base version along with patches and hotfixes.
31	QCCR1A175736	Operations Agent is enhanced to collect metrics information from HPVM 6.30.
32	QCCR1A175958	You can reduce the installation time by removing the signatures from the packages and MSI scripts.
33	QCCR1A176406	You can use the variable COMM_PROTOCOL to set the protocol to be used for secure communication. The values supported for COMM_PROTOCOL are TLSv1.2, TLSv1.1 and TLSv1
34	QCCR1A176489	Device mapper statistics is being logged as a part of the disk metrics class.
35	QCCR1A178043	SHA2 hash algorithm is used to sign certificates.
36	QCCR1A178813	The Metrics BYLS_LS_MODE_MEM is added to indicate if the memory of the Solaris zones is capped or uncapped.
37	QCCR1A178816	The Metrics BYLS_LS_MODE_MEM is added to indicate if the memory of the Solaris zones is capped or uncapped.
38	QCCR1A175715	A new variable OPC_MSG_USE_OUTGOING is introduced to define the sequence in which the messages are intercepted.

Note: For information about the configuration metrics, metrics introduced and the metrics obsoleted in the Operations Agent 12.00 see the *Operations Agent Handbook of Metrics*.

Obsolescence Announcements

12.02

Operations Agent 12.02 announces the end of support for HP-UX 11.11 and 11.23.

For the list of supported hardware, operating systems, and integration with other products, see the
Support Matrix.

12.01

Operations Agent 12.01 announces the obsolescence of Performance Collection Component's
graphical user interface on Windows.

Known Issues

The reference number for each defect is the Quality Center Change Request (QCCR) number. For more information about open defects, visit HP Software Support Online, or contact your HP Support representative directly.

Performance Collection Component

The data access requests are timed out

The **oacore** process completes the data access requests much before the requests are timed out. Data access requests are completed in the order in which they arrive.

If you request large data (for example: 2 million process records), **oacore** might take longer than usual to complete the request. While **oacore** is processing a large data access request, other requests (such as dsilog, extract) may be timed out.

Workaround: If you get a time-out error, you must request again.

On a HPUX IA system you cannot access the older database files after upgrading to HPE Operations Agent 12.xx

On a HPUX IA system, when you upgrade the HPE Operations Agent from version 11.1x to 12.xx, the older database files are saved at:

`/var/opt/OV/tmp/BackUp`

You *cannot* access this data using tools such as `ovcodautil`, extract, utility or through reporting tools such as the HP Performance Manager and the HP Reporter.

Workaround: None

QCCR1A183242, **QCCR1A183163**, and **QCCR1A183050**: Unsupported metrics BYLS and TTD appear in Glance, OVPA , and/or Xglance help page.

Workaround: Ignore these unsupported metrics.

QCCR1A183608: **extract** program hangs when the HPE Operations Agent is upgraded to 12.xx with 2-4 weeks of data and the **extract** output file has alignment issues.

Workaround: Run the utility command to determine the time stamp for the first logged data and then use the **Start** time and the **End** time as part of the **extract** program.

QCCR1A137193: On Windows 2008, **oacore** is not able to collect data for CPUs added dynamically.

Workaround: None

QCCR1A185739: PRM_BYVG_GROUP_ENTITLEMENT has issue on HPUX PA in **perfd** layer.

Workaround: None

QCCR1A188800: Parm file parameter **ignore_mt** set to **True** is ignored for Linux platform.

Workaround: None

QCCR1A188872: Data Retention: DSI logging is missing the last records which was logged in 11.14 after upgrade.

Workaround: None

QCCR1A189030: `datasources` file is not updating properly during ECBM policy registration after custom DSI class configuration, causing ECBM logging failure after HPE Operations Agent upgrade.

Workaround: New line is required during custom DSI datasource configuration. After a manual entry in the `datasources` file in the HP Operations Agent 11.x, new line or blank line below the entry is required.

Installation and Upgrade

QCCR1A185387: Operations Agent 12.00 HPUX IA64 package is shipping older 11.xx 32-bit LCore libraries/binaries instead of 12.00 32 bit libraries.

Solution: This issue is fixed in Operations Agent 12.01 and above with Operations Manager 9.22.

QCCR1A180762: Operations Agent monitoring component is removed if you install Performance Manager 9.x on a Windows x86 system where the Operations Agent 12.00 is installed.

Workaround: Reinstall Operations Agent 12.00 on the system to restore all the removed files and components.

> **Note:** Make sure that you install the Operations Agent 12.00 only after installing the Performance Manager 9.x.

QCCR1A184993: In mixed mode configuration, **oacore** and **hpsensor** processes are running in non-root mode on HP-UX platform.

Workaround: None

QCCR1A189487: When the management server is not active during the HPE Operations Agent upgrade to 12.02, auto actions do not get executed at the agent node until the management server is restored.

Workaround: None

QCCR1A189376: Error logged in oainstall.log while deleting the register key - HKEY_LOCAL_ MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Control Panel\CPLs\PACPL.

Workaround: None

QCCR8D97320: On Linux, during Operations Agent upgrade from 12.02 or 12.03 to Operations Agent 12.04 using Yum deployment, Perl component is not getting updated to 5.16.017.

Workaround: To resolve the issue, manually upgrade Perl component to 5.16.017 after upgrading Operations Agent to 12.04.

Log on to the node as a root user and run the following command:

```
yum -y upgrade HPOvPerlA
```

Perl

QCCR1A158330: Custom compiled CPAN modules and the behavior of the CPAN Perl modules are not supported.

Workaround: None

Health View

QCCR1A186749: Instance count of custom data sources is not correct in process view of **oacore** in Health View.

Workaround: None

hpsensor

QCCR1A186595: Collection interval mentioned in the **Metric Streaming Configuration** policy for **hpsensor** is not getting updated for system performance metrics.

Workaround: None. By default, the collection interval is 10 seconds.

QCCR1A186861: Custom metrics tool should consolidate the metrics when the same metric comes with different instances from different policies.

Workaround: None

QCCR1A186919: **ddflog** fails to send data to **hpsensor** if **oacore** is not running even though metric streaming is enabled.

Workaround: **oacore** must be running for **ddflog** to send data to **hpsensor**.

QCCR1A187055: Metric Streaming - **hpsensor** is not publishing metrics with UTF8-characters in metric, class, datasource, or instance name.

Workaround: None

QCCR1A186620: As compared to Linux and Windows, the performance of **hpsensor** on Solaris is slower and CPU and memory utilization is more.

Workaround: None

Other

QCCR1A186971: **opcmona** and **opctrapi** abort and dump core while enabling FIPS on HPUX IA 11.31.

Workaround: None

QCCR1A189518: With a non resolvable value of **OPC_NAMESRV_LOCAL_NAME** auto or operator initiated action is not getting executed on the node.

Workaround: None

QCCR1A189624: **opcmona** aborts on Windows, when any system environment variable value is more than 980 bytes.

Workaround: To resolve the issue, follow the steps:

1. Reduce the PATH size (or any system environment variable, whose value is crossing 1024) to less than 980 characters.

2. `ovc –kill`

3. `ovc –start`

QCCR1A167902: On Linux, when you install the Operations Agent, the user `opc_op` in `/etc/passwd file` and the group `ovgrp` in `/etc/group` are not created.

Workaround: Use the command **groupadd opcgrp** to create the `opcgrp` group manually before installing the Operations Agent. In case Operations Agent is already installed, run the following command to create the user:

`useradd -g opcgrp -d /home/opc-op opc_op`

QCCR1A153010: Opcle multiple monitoring template policy fails to send messages after restarting the opcle process from the Ubuntu operating system.

Workaround: Set the locale to **en_US.utf8**.

Limitations

- On an HP-UX system, if you open the character-mode interface of glance during the installation of the Operations Agent, the following error message appears in the glance console:

  `Glance fatal error. == Fatal Nums Error ==`

  Ignore this error.

- If you have created and registered ECBM policy in Operations Agent 11.14, upgraded to Operations Agent 12.00 with ECBM policy running, and again upgraded to Operations Agent 12.01 and above, then the data collected in Operations Agent 12.00 will not be in proper format as ECBM is not supported in Operations Agent 12.00. You may have to discard the data collected in Operations Agent 12.00.

- Microsoft Visual C++ 2005 Redistributable package is a pre requisite if you want to use the ECS

functionality with OM. Contact your Microsoft partner for support.

> **Note:** This is applicable only for new installation of Operations Agent 12.04 and above.

- Upgrade from Operations Agent 12.00.052 to any higher version of agent is not supported.

- On Debian and Ubuntu, upgrade from Operations Agent 12.00 to 12.01, 12.02 and upgrade from Operations Agent 12.01 to 12.02 is not supported.

- On AIX, the FS_SPACE_RESERVED metric is typically zero for local file systems since AIX does not reserve any file system space by default for the superuser.

- OM server with IPv4 stack configured with dual stack Reverse Channel Proxy cannot communicate with an IPv6 stack Operations agent node and vice versa.

- The GBL_NUM_VG metric shows zero if you disable the Logical Volume class of metrics.

- On Solaris non-global zones and AIX WPARs, the following metric classes are not supported by the Performance Collection Component, GlancePlus, and RTMA:
  - CPU class (BYCPU)

  - Disk class (BYDSK)

  - Swap class (BYSWP)

  - Logical volume (LVM)

  - Logical system (BYLS)

    Note: In addition, the Performance Collection Component does not support metrics of the NFS metric class in AIX WPARs.

- The following metrics are not supported by the Performance Collection Component in Solaris non-global zones:
  - GBL_DISK_TIME_PEAK

  - GBL_DISK_REQUEST_QUEUE

  - GBL_CPU_WAIT_UTIL

  - GBL_DISK_PHYS_IO_RATE

  - GBL_DISK_PHYS_READ_RATE

  - GBL_DISK_PHYS_WRITE_RATE

  - GBL_DISK_PHYS_BYTE_RATE

  - GBL_DISK_PHYS_WRITE_BYTE_RATE

  - GBL_DISK_VM_IO_RATE

- ○ GBL_MEM_SYS_AND_CACHE_UTIL

- ○ GBL_SWAP_SPACE_AVAIL

- ○ GBL_SWAP_SPACE_RESERVED

- ○ GBL_SWAP_SPACE_AVAIL_KB

- ○ GBL_SWAP_SPACE_MEM_AVAIL

- ○ GBL_CPU_CYCLE_ENTL_MIN

- ○ GBL_DISK_UTIL_PEAK

- ○ GBL_DISK_PHYS_READ_PCT

- ○ GBL_CPU_WAIT_TIME

- ○ GBL_DISK_PHYS_IO

- ○ GBL_DISK_PHYS_READ

- ○ GBL_DISK_PHYS_WRITE

- ○ GBL_DISK_PHYS_READ_BYTE_RATE

- ○ GBL_DISK_PHYS_BYTE

- ○ GBL_DISK_VM_IO

- ○ GBL_MEM_CACHE_HIT_PCT

- ○ GBL_SWAP_SPACE_USED

- ○ GBL_SWAP_SPACE_UTIL

- ○ GBL_CPU_MT_ENABLED

- ○ GBL_SWAP_SPACE_DEVICE_AVAIL

- ○ GBL_CPU_CYCLE_ENTL_MAX

- ○ TBL_PROC_TABLE_UTIL

- ○ TBL_FILE_LOCK_USED

- ○ GBL_ZONE_APP

- For the following metrics, the Performance Collection Component shows global zone values in non-global zones:

  - ○ GBL_MEM_DNLC_HIT_PCT

  - ○ GBL_FS_SPACE_UTIL_PEAK

  - ○ GBL_NET_PACKET_RATE

  - ○ GBL_NET_IN_PACKET

- GBL_NET_IN_PACKET_RATE

- GBL_NET_OUT_PACKET

- GBL_NET_OUT_PACKET_RATE

- GBL_NET_COLLISION_RATE

- GBL_NET_COLLISION_PCT

- GBL_NET_DEFERRED_PCT

- GBL_NET_ERROR_RATE

- GBL_NET_IN_ERROR_PCT

- GBL_NET_IN_ERROR_RATE

- GBL_NET_OUT_ERROR_PCT

- GBL_NET_OUT_ERROR_RATE

- GBL_NET_COLLISION_1_MIN_RATE

- GBL_NET_ERROR_1_MIN_RATE

- GBL_RUN_QUEUE

- GBL_LOADAVG

- GBL_LOADAVG5

- GBL_BLOCKED_IO_QUEUE

- The Performance Collection Component always reports zero for the following metrics in non-global zones:
  - GBL_NUM_DISK

  - GBL_NUM_LS

  - GBL_NUM_ACTIVE_LS

  - GBL_NUM_DISK

- On Linux, the following metrics are logged only for SUSE Linux Enterprise Server 11 and Red Hat Enterprise Linux 5.4 or higher:
  - APP_DISK_PHYS_IO_RATE

  - APP_DISK_PHYS_READ

  - APP_DISK_PHYS_READ_RATE

  - APP_DISK_PHYS_WRITE

  - APP_DISK_PHYS_WRITE_RATE

- APP_IO_BYTE

- APP_IO_BYTE_RATE

- To view the man pages on UNIX/Linux platforms, you must manually set the `MANPATH` variable to the following locations:
    - On AIX: `/usr/lpp/OV/man`, `/usr/lpp/perf/man`

    - On HP-UX, Solaris, and Linux: `/opt/OV/man`, `/opt/perf/man`

- You cannot enable or disable a policy with the ovpolicy command if the policy name includes the **:** character.

- You cannot use the `PROCESS` object with the `SCOPE` data source in Measurement Threshold policies where the source is set to `Embedded Performance Component`.

- Limitations for using a non-default (no-root or non-privileged) user

    - The non-privileged user mode is not supported on the HP-UX platform.

    - The non-privileged and mixed modes are not supported on AIX WPAR.

    - By default, the agent user with non-privileged and mixed user modes will not have permission to read the monitored log file.

    - By default, the agent user with non-privileged and mixed user modes will not have permission to start a program using an automatic command, operator-initiated command, tool, or scheduled task.

    - Operations Smart Plug-ins may require additional configuration or user rights if the agent user with non-privileged and mixed modes does not have administrative rights.

    - The Operations Agent cannot collect metrics starting with `PROC_REGION_*` or `PROC_FILE_*` for all instances of processes owned by non-privileged users. Also, processes running with higher privileges like `ovbbccb` and `sshd` are not available in the non-privileged mode.

    - On Windows, the `PROC_USER_NAME` metric is displayed as `Unknown` for processes owned by users other than the agent user.

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If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on Release Notes (Operations Agent 12.05)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to docfeedback@hpe.com.

We appreciate your feedback!