Operations Smart Plug-in for Systems Infrastructure

Software Version: 12.04
Operations Manager for Windows®, HP-UX, Linux, and Solaris operating systems

Release Notes

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Hewlett Packard Enterprise

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Operations Smart Plug-in for Systems Infrastructure Release Notes

For the Operations Manager for Windows®, HP-UX, Linux, and Solaris operating systems.

Software version: 12.04

Publication date: August 2017

This document is an overview of the changes made to Operations Smart Plug-in for Systems Infrastructure (SI SPI). It contains important information that is not included in manuals or the Online Help. You can find information about the following in this document:

- What's New in This Release

- Supported Environments

- License for the Software

- Support Matrix

- Installation Notes

- Known Problems and Workarounds

- Limitations

- Documentation Updates

- Localization Support

What's New in This Release

This release of SI SPI contains the following features:

SI-ProcessMonitor

The SI-ProcessMonitor policy monitors a set of processes in a process group. All processes and process groups that you want to monitor using the SI-SPI must be defined in the configuration file, `procmon.cfg` or in the SI-ProcessMonitorConfig File policy.

For more information, see the *Operations Smart Plug-in for Systems Infrastructure User Guide*.

SI-ZombieProcessCountMonitor

SI-ZombieProcessCountMonitor policy (Measurement Threshold) monitors the number of zombie processes running on a node. If the number of zombie processes exceed the set threshold, it sends an alert to the OM console.

For more information, see the *Operations Smart Plug-in for Systems Infrastructure User Guide*.

Configuration Change Monitoring (Change CI Monitoring or CCIMon) policy

The CCI Monitor policy monitors files, Windows registry settings, and command output for changes. All configuration changes that you monitor can be added to the Config File policy or to the configuration file `ccilist.cfg` located at:

On Windows

`%OvDataDir%\conf\ccimon\configuration`

On UNIX

`var/opt/OV/conf/ccimon/configuration`

The CCI Monitor policy reads the `ccilist.cfg` file at every run and sends alerts when there is a change in files, Windows registry settings, and command outputs.

Desired State Monitoring

Desired State Monitoring monitors files, windows registry settings, and command outputs in the configuration file `ccilist.cfg`.

After deployment, the Desired State Monitoring checks for `==` in the configuration file `ccilist.cfg` and compares the files, windows registry settings, and command outputs added in the configuration file with the corresponding reference or gold file. Alerts are generated whenever there is a change in the monitored file, windows registry settings, and command outputs.

For more information, see the *Operations Smart Plug-in for Systems Infrastructure User Guide*.

RealTimeAlerts Policy

The RealtimeAlerts policy monitors the bottlenecks in CPU, disk, memory, and networking. The Realtime Configuration policy defines the threshold for these parameters. During a threshold breach, alert messages notify the system administrator with no time delay and reduce the downtime in the production environment.

Note: You must enable RTMA license on the Operations Agent node for RealTimeAlerts policy to fetch real time data.

For more information, see the *Operations Smart Plug-in for Systems Infrastructure User Guide*.

Security Policies for Monitoring Log Files

- **Bad login policy for Linux**: This policy monitors the `/var/tmp/badlogs.log` file for bad logins and alerts users when an incorrect login occurs.

- **Bad login policy for AIX**: This policy monitors the `/etc/security/flogin` file for bad logins and alerts users when an incorrect login occurs.

- **Logins policy for AIX**: This policy monitors the `/var/adm/wtmp` file for login history and alerts users when a successful remote login, successful local login, system boot, system shutdown user, or system shutdown occurs.

- **SU policy for AIX**: This policy monitors the switch user history in the `/var/adm/sulog` file. Alerts are sent to users when the `SU` command is run.

- **Sys Log policy for AIX**: This policy monitors the messages sent to the `/tmp/syslog` file.

- **Bad logins policy for HP-UX**: This policy monitors the `/var/adm/loginlog` file for failed logins and alerts users when an incorrect login occurs.

- **Logins policy for HP-UX**: This policy monitors the `/var/adm/wtmps` file for logins and alerts users when an incorrect login occurs.

- **Switch User policy for HP-UX**:This policy monitors the `/var/adm/sulog` file for switch user events and alerts users when any switch user event occurs.

- **Syslog policy for HP-UX**:This policy monitors the messages sent to the `/var/adm/syslog/syslog.log` file.

- **Sun Solaris Bad logins**: This policy monitors the `/var/adm/loginlog` file for failed logins and alerts users when an incorrect login occurs.

- **Sun Solaris logins**: This policy monitors the `/var/adm/wmptx` file for login details and alerts when a successful remote login, successful local login, system login, system boot, system shutdown, or system shutdown/1 occurs.

- **Sun Solaris snmp log policy**: This policy monitors the `/var/adm/messages` file for SNMP log file entries.

- **Sun Solaris Syslog policy**: This policy monitors the system messages in the system log file `var/adm/messages` and alerts when a required condition matches successfully.

For more information, see the *Operations Smart Plug-in for Systems Infrastructure User Guide*.

FSMON Feature

The FSMON feature monitors filesystems when the `fsmon` flag is set to **True** in the Disk Capacity Monitor policy. Alert messages are sent to the users based on the thresholds defined in the configuration file.The policy reads the filesystems listed in the following configuration files:

- `osspi_fsmon.cfg`

- `osspi_global_fsmon.cfg`

- `osspi_local_fsmon.cfg`

For more information, see the *Operations Smart Plug-in for Systems Infrastructure User Guide*.

Energy SPI Collection

The Energy SPI Collector is a tool used to collect metrics from systems where Operations Agent version 12.01 is running. This tool measures the energy utilization of physical machines where multiple virtual machines are installed. The Energy SPI Collector tool is supported only on Windows and Linux platforms and functions only when Integrated Lights-Out (iLO) is installed on the physical server.

For more information, see the *Operations Smart Plug-in for System Infrastructure User Guide.*

Supported Environments

Before installing SI SPI, make sure that your system meets the following minimum requirements for Operations Manager (OM) management server and managed nodes.

For information about the supported operating system architectures, release versions, and for recent updates, go to the support matrix URL: Software Support Matrix.

Management Server Requirements

The Infrastructure SPI is supported on OM for Windows, HP-UX, Linux, and Solaris operating systems. The following table lists the OM requirements and the Software products you must install on the management server. The patches mentioned are the minimum applicable level. Always apply the latest available patches.

Product Name	Operating system	Versions Supported	Patch/Hot fix
Operations Manager	Windows	9.00	OMW_00185
		8.16	OMW_00186
	HP-UX	9.21.100	OMUADMINUI_00012.zip, OMHPUX_00013.depot
		9.21.130	OMHPUX_00021
	Linux	9.21.100	OMUADMINUI_00012.zip, OML_00089.rpm
		9.21.120	OML_00098
		9.21.130	OML_00099
	Solaris	9.21.100	OMUADMINUI_00012.zip, ITOSOL_00811.shar
		9.21.120	ITOSOL_00818
Performance Manager (to view graphs)	Windows	9.20	-
	HP-UX	9.20	-
	Solaris	9.20	-
	Linux	9.20	-
		9.21.120	OML_00098
Reporter (to view reports)	Windows - 64 bit	4.00	-
	Windows - 32 bit	3.90	-
		3.80	-

* Contact Support to obtain the hotfix

Supported Agent Versions on Managed Nodes

The Infrastructure SPIs provide support to nodes running Windows, AIX, Linux, HP-UX, or Solaris operating systems. The following table lists the agent version that you must deploy on the managed nodes.

Product Name	Version supported
Operations Agent	12.04

License for the Software

No separate license is required for the SI SPI. It is included with the purchase of Operations Agent Software LTUs (License to Use). Separate LTUs for SI SPI, CI SPI, and VI SPI are included with each Software Operations Agent LTU.

Support Matrix

You can find the Support Matrix for this product that lists all software and hardware requirements at this location: Support matrices.

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

To register for an Passport ID, go to Passport Registration.

Installation Notes

Installation requirements, as well as instructions for installing the SI SPI are documented in the Installation Guide *(Operations Agent and Smart Plug-ins for Infrastructure Installation Guide)*.

Known Problems and Workarounds

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

Problem: For Debian and Ubuntu service monitoring policies, place holder should be added in Availability policy group under Linux. For more information, see QCCR1A153787

Problem: If you uninstall Infrastructure SPI 12.01 after an upgrade, the inventory for Graphs shows the version as 12.01 instead of 11.xx

Workaround: Follow the steps:

1. Before upgrading to Infrastructure SPI 12.01, back up the `VPI_GraphsInfraSPI.txt` file located at:

   On Windows:

   `/opt/OV/newconfig/OVPM`

   On UNIX

   `/opt/OV/newconfig/OVPM`

2. Downgrade to Infrastructure SPI 11.xx

3. Replace the backed up file.

QCCR1A134939: SI-Discovery reports time out for large number of filesystems.

Workaround: You can increase the `agtrep` time out on the node using the following command:

`ovconfchg -ns agtrep -set ACTION_TIMEOUT 30`

Problem: Some Log monitoring policies do not work on RHEL and SLES systems running agent as non-root user.

Workaround: SI SPI supports policies and tools for alternative, non-root users on HTTPS agents. The following policies do not work on RHEL and SLES systems:

- SI-LinuxBootLog
- SI-LinuxSecureLog
- SI-LinuxKernelLog 2

To enable alerts for log monitoring for Infrastructure SPIs on non-root agents, follow these steps:

1. Update the permission of the required log files using the following commands:

   For RHEL:

   `chmod 444 /var/log/messages`

   `chmod 444 /var/log/boot.log`

   `chmod 444 /var/log/secure`

   For SLES:

   `chmod 444 /var/log/messages`

   `chmod 444 /var/log/boot.log`

2. Update the permission of OVBBCCB and OPCLE processes for RHEL and SLES using the following commands:

   ```
   chmod 4555 /opt/OV/bin/ovbbccb
   ```

   ```
   chmod 4555 /opt/OV/lbin/eaagt/opcle
   ```

3. Switch to non-root user for RHEL and SLES by running the following command:

   ```
   su - <non-root user name>
   ```

4. Restart ovc for RHEL and SLES by running the following commands:

   ```
   ovc -stop
   ```

   ```
   ovc -start
   ```

5. To check the status of all processes, run the `ovc` command. It displays all the processes which are up and running.

Problem: For the SNMP nodes added by Infrastructure SPIs on OM, the alert message appears as `critical node may be down`.

Workaround: To manually update the heartbeat polling protocol for the SNMP node to ICMP, follow these steps:

On Windows:

1. In the OM for Windows management server console, right-click the SNMP node.

2. Choose **Properties** from the pop-up menu.

3. Click the **Network** tab.

4. Under Heartbeat Polling, change the value of **Polling** to **Custom** and the value of **Ping Protocol** to **ICMP Only**.

5. Click **Apply** and then click **OK**.

On HP-UX, Linux, and Solaris:

Run the command:

```
opchbp -stop -nodegrp "VI-VMware Guests"
```

For Operations Agent:

- **Problem**: `opcle` aborts when Infrastructure SPIs policies are deployed to the node. For more information, see QCCR1A153786.

QCCR1A155301: All process monitoring policies shows default message, `XXX process is not running` even when the CPU utilization/memory usage of the process violates the condition.

Workaround: Contact Support.

QCCR1A187171: The SI-ZombieProcessCountMonitor policy is not supported in Infrastructure SPI version 12.01.

Workaround: None

QCCR1A187172: Direct upgrade from Infrastructure SPI version 11.10 to 12.01 is not supported.

Workaround: You must first upgrade from Infrastructure SPI version 11.10 to 11.11 and then upgrade to Infrastructure SPI version 12.01.

Limitations

- The language of the policies auto-deployed on the nodes depends on the locale of the OM for Windows management server. It does not depend on the locale of the node.
- SI SPI tools are not localized.

Documentation Updates

The following documentation is available for SI SPI:

- Operations Agent and Smart Plug-in for Infrastructure Installation Guide
- Concepts Guide
- User Guide

The first page of this document identifies the:

- Version number for the software.
- Software release date.

To check for recent updates or to verify that you are using the most recent edition, visit the Software Product Manuals web site.

To retrieve a document, select the:

1. **Product** name.

2. **Version** list.

3. **Operating System**.

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6. Click **Open** or **Download**.

You must have Adobe® Reader installed to view files in PDF format (*.pdf). To download Adobe Reader, go to the Adobe web site.

Localization Support

HPE supplies localized software and documentation in English.

The SI-LinuxRealTimeAlerts and SI-WindowsRealTimeAlerts policies are not localized.

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Feedback on Release Notes (Operations Smart Plug-in for Systems Infrastructure 12.04)

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