

HP Server Automation

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Introduction

This document provides an overview of the HP Server Automation 9.17 release. It contains important information not included in the manuals or in the online help.

Up-to-Date Documentation

For the most updated release notes, see [the HPSW Support Portal](#) on the HP Support website.

Audience

These release notes contain information for users who are familiar with the installation and maintenance of Server Automation and its integrated products, SVA, ADM, and DMA.

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What's New In this Release

This section describes new functionality and other relevant release-specific information.

For information about what was new in previous releases, use your HP Passport Credentials to log in to the [HPSW Support Portal](#) and use the Search button to search for a specific release-note document.

New Managed Platforms supported

- RHEL 7
- SLES 12
- RHEL 5.11
- RHEL 6.6

Support and Compatibility Information

For complete Server Automation support and compatibility information for this release, see the SA Support and Compatibility Matrix.

For more information about supported configurations, see the SA 9.17 Installation Guide.

New for Software Management

Zypper

Zypper support was added to this release.

RHEL 7 Import Available

Import of RHEL 7 content is now possible using the new `redhat_import` tool through Red Hat Subscription Management.

For more information on SA software management, see the SA 9.x Software Management Guide on the [HPSW Support Portal](#) on the HP Support website.

New for Provisioning

Samba

Samba was upgraded to version 3.6.25.

For more information on SA provisioning, see the SA 9.x Provisioning Guide the [HPSW Support Portal](#) on the HP Support website.

New for Application Deployment

- Apache-tomcat was upgraded to version 6.0.43.

Deprecation and End-of-Support Announcements

This section lists deprecated platforms, features, and agents for this release as well as previously deprecated items that have now reached the end of their support lifecycle.

When a platform/agent/feature is identified as *deprecated* for a release, it means that you (the SA customer) are considered notified of its future removal. Deprecated features are still fully supported in the release they are deprecated in, unless specified otherwise. The intent is that deprecated features or platforms will have support removed in the next major or minor SA release; however, eventual removal is at the discretion of HP. The following sections list features that were deprecated in the SA 7.80 release. Current and future availability of these features is also described here.

Deprecated API Methods

In SA 9.x, moving application configurations and configuration templates into folders changed the behavior of the associated classes and services.

Attributes folder and lifecycle of the VO-s are required for the following API calls:

- `com.opsware.acm.ConfigurationService#create`
- `com.opsware.acm.ConfigurationService#update`
- `com.opsware.acm.CMLService#create`
- `com.opsware.acm.CMLService#update`

The following methods have been deprecated, but they still perform as expected. Method `com.opsware.folder.FolderVO#getCustomers` should be used instead.

- `com.opsware.acm.ConfigurationVO#getCustomers`
- `com.opsware.acm.CMLVO#getCustomers`

The following methods have been deprecated and they have a void implementation. Method `com.opsware.folder.FolderVO#setCustomers` must be used instead.

- `com.opsware.acm.ConfigurationVO#setCustomers`
- `com.opsware.acm.CMLVO#setCustomers`

Code Deployment and Rollback (CDR) and Configuration Tracking

Code Deployment and Rollback (CDR) was deprecated in the SA 7.80 release, but is still supported in SA 9.0. In a future release, this feature will not be supported. The new Application Deployment Manager in SA 9.0 is intended to replace CDR. See Application Deployment Manager in the SA Application Deployment User Guide for more information.

If you upgrade to SA 9.17 and also upgrade to an SA 9.17 agent, you will no longer be able to use CDR because it is only supported if you are using SA 9.01 (or earlier) agents. However, you will be able to use CDR with SA 9.17 if you uninstall the SA 9.17 agent and reinstall an SA 9.01 (or earlier) agent (not recommended, as you will be unable to use other SA 9.17 features).

For more information about the deprecation of CDR, contact your HP Technical Support representative.

Agent Deprecation

In SA 9.0, HP announced the deprecation of the Server Automation Agent for the following versions:

- Server Automation 7.01
- Server Automation 7.00
- Server Automation 6.xx
- Server Automation 5.xx

Although releases of HP Server Automation prior to 9.0 will continue to support these versions of the Agent, it is recommended that customers migrate to newer versions of the Agent on their managed platforms.

HP SA will stop supporting these versions of the Agent in an upcoming major or minor release. Agents from Server Automation 4.xx and earlier are not supported in this release.

DOS-Based OS Provisioning

DOS-based OS Provisioning was deprecated in the SA 7.80 release and is not supported in SA 9.0 or later. For more information, contact your HP Technical Support representative.

start_opsware.sh and stop_opsware.sh scripts

As of SA 7.80, the following scripts are no longer supported:

- start_opsware.sh
- stop_opsware.sh

In SA 9.0 and later you must use the unified start script:

- /etc/init.d/opsware-sas

If you have any applications or scripts that depend on this script, you must rewrite them to use the unified start script.

Virtualization

The Open Console action (for VMware virtual machines of ESX agent-managed hypervisor) was removed in the SA 9.0 release.

The Open Web Access action (for ESX agent-managed hypervisors) was removed in the SA 9.0 release.

As of SA 9.0, virtualization actions for agent-managed ESX 3.0 hypervisors are no longer supported, unless the ESX 3.0 hypervisor is managed by a Virtualization Service. It cannot be directly added to the Virtual Servers view (through Add Hypervisor); it needs to be vCenter managed.

The following Virtual Server reports were deprecated in 9.14:

- Server Reports/ Virtualization Reports/Virtual Servers by Virtualization Technology
- Server Reports/ Virtualization Reports/All Virtual Servers
- Server Reports/Virtualization Reports/VMware Virtualization Reports/Virtual Servers by Hypervisor (VMware only)
- Server Reports/Virtualization Reports/VMware Virtualization Reports/Resource Allocation by Hypervisor (VMware only)

Deprecated SMOs

The following SMOs were deprecated in 9.14:

- Library > (select by folder) > Opsware > Tools > Server Modules > com.opsware.server.module.hypervmanager_windows
- Library > (select by folder) > Opsware > Tools > Virtualization Management Modules > (here are 7 zip files and one software policy)
- Package: vmm-vmware-esx-45.0.2748.0.zip (VMware ESX Server 3)
- Package: vmm-vmware-esx-45.0.2749.0.zip (VMware ESX Server 3.5)
- Package: vmm-vmware-esx-45.0.2749.0.zip (VMware ESX Server 4)
- Package: vmm-vmware-esx-45.0.2749.0.zip (VMware ESX Server 4.1)
- Package: vmm-vmware-esx-45.0.8508.0.5.zip (VMware ESX Server 3)
- Package: vmm-vmware-esx-45.0.8508.0.5.zip (VMware ESX Server 3.5)
- Package: vmm-vmware-esx-45.0.8508.0.5.zip (VMware ESX Server 4)
- Package: vmm-vmware-esx-45.0.8508.0.5.zip (VMware ESX Server 4.1)
- Software Policy: VMware ESX VMM

Installation

This section describes the installation procedure.

Preinstallation Steps

Core, Satellite, and Multimaster Mesh Environments

Before you install/upgrade/uninstall, all core/satellite services must be up and running. If any services are stopped or dysfunctional (as reported by the `/etc/init.d/opsware-sas status` command), the patch operation will terminate.

If you are patching a multihost core/satellite, you must patch each core and satellite host separately, one at a time.

If you are patching a multimaster mesh, HP recommends that you patch the primary core first, followed by secondary cores and satellites, thus ensuring that the primary core is at a higher version (such as SA 9.17 or higher) than the secondary cores

Mixed version core environments are not supported. However, during the patch upgrade, a transitory mixed core version environment is supported. For example, while the patch upgrade is in progress, cores at different patch levels can temporarily coexist in a multimaster mesh.

Certificate Requirements

- **spog.pkcs8 Certificate**

In order to patch and/or roll back Wayscripts, the spog.pkcs8 certificate must exist under `/var/opt/opsware/crypto` (typically the certificate is installed with the Shell, SAS Web Client, or Build Manager). If the certificate does not exist, the patch operation will fail with the following error:

```
Could not find spog.pkcs8 /var/opt/opsware/crypto/occ
```

Copy the certificate from another core machine (for example, occ) to `/var/opt/opsware/crypto/occ` and retry this operation.

- **spin.srv Certificate**

In order to patch and/or roll back Software Repository (Word) updates, the spin.srv certificate must exist under `/var/opt/opsware/crypto/spin` (typically the certificate is installed with the Web Services Data Access Engine (Spin)). If the certificate does not exist, the patch operation will fail with the following error:

```
Could not find spin.srv under /var/opt/opsware/crypto/spin.
```

Copy the certificate from another core machine (such as occ) to `/var/opt/opsware/crypto/spin` and retry this operation.

Solaris Patching

The following error may occur during upgrade on cores on which Solaris patching has not yet been set up (you can safely disregard this error):

```
You don't have permission to update the patch meta database in HP SA. Please re-run this command with a proper hpsa_user and hpsa_pass. The hpsa_user needs permission to write the folder "/Opware/Tools/Solaris Patching" and the Package Management Client Feature, "Manage Package" permission set "Read & Write". There was a problem with running update_supplements.
```

Refer to the section Patch Management for Solaris in *Users Guide: Application Automation* for details on how to set up Solaris patching on your core.

SA Agents

This patch includes updated Server Agents that will be uploaded to the Software Repository. However, no agents will be upgraded on core machines (that is, in the Model Repository) or on Managed Servers without manual intervention.

SA Versions Required on Your System

SA 9.17 can only be installed on systems running the following:

- SA version 9.10 GA build (Build ID of opsware_45.0.6790.0)
- SA versions 9.10.01, 9.10.02, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16

If any installed SA components (other than a previously installed patch) have a different build ID, you will not be allowed to install SA 9.17.

To determine the build ID for a core machine:

1. Open the file `/var/opt/opsware/install_opsware/inv/install.inv` and find the section beginning with `%basics_`.
2. Under this line, find the `build_id`.

For example:

```
%basics_linux
```

```
build_id: opsware_45.0.6790.0
```

3. When you install an SA patch, the patch installation updates the `install.inv` file to record the patch installation and the patch build ID.

For example:

```
%opsware_patch
```

```
build_id: opsware_45.0.17090.0
```

Server Time Zones

All SA Core Servers must have their time zone set to Coordinated Universal Time (UTC).

Dual Layer DVD Requirements

All SA installation DVDs require a DVD drive that supports dual layer.

Script Running Order

The pre-patch, database update, and patch install scripts must be run in the following order:

SA Script Running Order - Upgrade

Upgrade From	To	Script Running Order
9.10, 9.10.01, 9.10.02, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16	9.17	<ol style="list-style-type: none">1. patch_database.sh2. patch_opsware.sh3. patch_contents.sh

SA Script Running Order - Rollback

Roll Back From	To	Script Running Order
9.17	9.10	1. patch_opsware.sh 2. patch_database.sh

Notes:

- SA 9.17 can be rolled back, but only to the previous full release, SA 9.10.
- The patch_database.sh script is used both for installing and rolling back database schema changes required for SA 9.17.
- You must run the patch_database.sh script on the First Core and all Secondary Cores. Note that the Model Repository and Oracle database can exist on a different host than the SA host. You must run the script on the machine that has the Model Repository installed.
- The response file used to last install/upgrade of the SA Core must be supplied when invoking patch_database.sh.
- The patch_opsware.sh script is used both for installing and for uninstalling SA 9.17.
- There's no need to supply a response file with patch_opsware.sh.
- Upon completion of a patch operation, all services on the core/satellite machine should be up and running.
- If you must roll back the SA 9.17 patch in a Multi-master Mesh, HP recommends that you roll back the secondary cores and satellites first, then the primary core.

Migrating from SA 7.8 or SA 9.0 to SA 9.17

Migrating Order

When migrating from SA 7.8 to SA 9.1x:

1. Upgrade to 7.87 first.
2. Migrate all Windows Server 2008 R2 servers using the script: windows_2008_R2_fix_script.pyc.
3. Upgrade to 9.1x.

When migrating from SA 9.0 to SA 9.1x:

1. Upgrade to 9.06 first.
2. Migrate all Windows Server 2008 R2 servers using the script: windows_2008_R2_fix_script.pyc.
3. Upgrade to 9.1x.

Adobe Flash Player

HP BSA Launcher Issues

Certain SA Client features (such as Run OS Build Plan or HP UX Provisioning) require the Adobe Flash Player. If you try to run these features, and you have not yet installed Adobe Flash Player, you will get an error.

To make sure Adobe Flash Player functions correctly and to avoid the error message, you should:

1. Stop any instances of the SA Client.
2. Using Internet Explorer, access the following site: <http://www.adobe.com/software/flash/about/>
3. Make sure that the latest version of Adobe Flash Player is installed in Internet Explorer.
4. Restart the SA Client and run the features normally.

The error message should not display.

Database Schema Update Procedure

The script run during this procedure makes required changes to the Model Repository, including adding required tables and objects.

Note: All SA Core Servers must have their time zone set to Coordinated Universal Time (UTC). In a RAC environment, all RAC nodes must have the exact same time.

1. Mount the SA 9.17 distribution. Invoke `patch_database.sh` on the Model Repository host:

```
<distro>/opsware_installer/patch_database.sh --verbose -r <response file>  
Where <response file> is the response file last used to install/upgrade the system.
```

```
Usage: patch_database.sh [--verbose] -r <response file>
```

`patch_database.sh` automatically detects if a database update is already installed and presents a corresponding menu:

- a. If the database update has not been previously applied, you see the following:

```
Welcome to the Opsware Installer. It appears that you do not have  
a database update installed on this system.  
Press 'i' to proceed with patch installation.  
Press 's' to show patch contents.  
Press 'q' to quit.  
Selection: i
```

- b. Enter *i* at the prompt to begin the database update.

- c. If the database update has previously been applied, you see the following:

```
Welcome to the Opsware Installer.  
It appears that you have installed or attempted to install a  
previous version of the database update on this system.  
Press 'u' to upgrade the patch to the current version.  
Press 'r' to remove this patch.  
Press 's' to show patch contents.  
Press 'q' to quit.  
Selection: u  
You chose to upgrade the patch. Continue? [y/n]: y
```

Enter *u* at the prompt then *Y* to begin the database update.

2. After you make your selection, the installer completes the new (or interrupted) installation. On completion, you see a screen similar to the following:

```
[timestamp] Done with component Opsware SQL patches.
[timestamp] #####
[timestamp] Opsware Installer ran successfully.
[timestamp] #####
```

Note: After running the `patch_database.sh` script, you may see the following error when running the System Diagnostic test on your core (you can disregard the error):

```
Test Name: Model Repository Schema
Description: Verifies that the Data Access Engine's version of the
schema matches the Model Repository's version.
Component device: Data Access Engine (spin)
Test Results: The following tables differ between the Data Access
Engine and the
Model Repository: local_data_centers, role_class_bridge.
```

Patch Installation Procedure

Note: Before performing the tasks in this section make sure you have completed the tasks listed in Database Schema Update Procedure.

Installation Steps

Make sure you follow these steps before you install SA:

1. Mount the SA 9.17 patch distribution to a directory.
2. Copy the entire content of the directory mentioned in step 1 to a *writable* file system. This file system *must* have the equivalent free-disk space equal to double the size of the ISO file plus 1 GB. For example, if the ISO file is 4 GB, make sure the file system has at least 9 GB of free-disk space available.
3. Run `patch_opsware.sh` on every core and satellite facility from the *writable* directory, not from the original mount location.

```
<distro>/opsware_installer/patch_opsware.sh --verbose
```

Usage: `patch_opsware.sh` [--verbose]

`patch_opsware.sh` automatically detects whether or not there is a patch already installed and presents a corresponding menu:

- a. **Non-upgraded System** : If your system has not been previously patched with a 9.1x patch, you see the following menu:

```
Welcome to the Opsware Installer. It appears that you do not have
any patches installed on this system. Press 'i' to proceed with
patch installation.
Press 's' to show patch contents.
Press 'q' to quit.
Selection: i
```

Enter `i` at the prompt to begin the installation.

- b. **Previously Upgraded System** : If an SA patch has already been installed successfully, when `patch_opsware.sh` is invoked from a newer patch release, you see the following menu:

```
Welcome to the Opsware Installer. It appears that you have installed
or attempted to install a previous version of the patch on this
system.
Press 'u' to upgrade the patch to the current version.
Press 'r' to remove this patch.
Press 's' to show patch contents.
Press 'q' to quit.
Selection: u
```

Enter `u` at the prompt to begin the upgrade.

3. After you make your selection, the installer completes the new (or interrupted) installation. The installer displays the following upon completion:

```
[<timestamp>] Done with component Opsware Patch.
[<timestamp>]
#####
[<timestamp>] Opsware Installer ran successfully.
[<timestamp>]
```

Software Repository Content Upgrade

This section details upgrades to the software repository content on the upload distribution (such as agent packages to be reconciled to managed servers).

General Information

- Upgrading software repository content data is similar to using `patch_opsware.sh` from the upload distribution, but will only update those packages that have changed since the last major version.
- If you are upgrading a core hosted on multiple servers, the Software Repository content patch must be applied to the server hosting the Software Repository Store (Word store).
- If you are upgrading a Multimaster Mesh, the Software Repository content upgrade should only be applied to the First Core (the upgraded content will automatically be propagated to other cores in the mesh).

Note: Unlike core patches, Software Repository content upgrades cannot be rolled back.

Upgrading the First Core Content

1. On the First Core Software Repository store (word store) host, invoke the upgrade script:

```
<distro>/opsware_installer/patch_contents.sh --verbose -r <response file>
```

where `<response file>` is the response file last used to install/upgrade the SA Core.

The following menu is displayed:

```
Welcome to the Opsware Installer. Please select the components to install.
1 ( ) Software Repository - Content (install once per mesh).
Enter a component number to toggle ('a' for all, 'n' for none).
When ready, press 'c' to continue, or 'q' to quit.
```

Enter either `1` or `a`, and press `c` to begin the installation.

2. If the Software Repository content image is not installed on the server, the following message will be displayed:

```
[<timestamp>] There are no components to upgrade.  
[<timestamp>] Exiting Opsware Installer.
```

Rolling Back the Patch

Steps to Roll Back the Patch

To roll back SA 9.17 to SA 9.10, invoke the script:

```
<distro>/opsware_installer/patch_opsware.sh --verbose
```

If this is a patched system, the following will be displayed:

```
Welcome to the Opsware Installer. It appears that you have previously  
completed installation of this patch on this system.  
Press 'r' to remove this patch.  
Press 's' to show patch contents.  
Press 'q' to quit.  
Selection:
```

Enter *r* at the prompt to remove the patch.

Note: Rolling back SA 9.17 does not remove the Windows Server 2008 data that was created when the core was upgraded. For example, any Windows Server 2008 patches or policies created will remain. If you try to install these patches or attach the policies, an error will occur.

Rolling back SA 9.17 does not delete any patches and policies that you have imported or created after the upgrade and these may fail with an error if you attempt to run them.

Rolling Back the Database Schema Update

To roll back the database schema update, enter this command:

```
<distro>/opsware_installer/patch_database.sh --verbose -r <response file>
```

Where <response file> is the response file last used to install/upgrade the system.

If the database has been updated, you see the following:

```
Welcome to the Opsware Installer. It appears that you have previously  
completed the installation of this database update on this system.  
Press 'r' to remove this patch.  
Press 's' to show patch contents.  
Press 'q' to quit.  
Selection: r
```

Enter *r* at the prompt to begin the database schema update rollback.

Post-Installation / Upgrade Tasks

This section lists the tasks that should be performed after you install or upgrade to SA 9.17. Some tasks might not be appropriate for your situation.

Installing SA on Red Hat EL 5.9

If SA 9.17 is installed on Red Hat EL 5.9, sporadic `org.omg.CORBA.COMM_FAILURE` exceptions will be displayed in the SA Client console.

To work around this issue:

1. Set the following kernel parameters:

```
sysctl net.ipv4.tcp_tw_recycle=1
sysctl net.ipv4.tcp_tw_reuse=1
```

2. Set the property to *not* use the socket option: `SO_REUSEADDR` on all gateways:

```
# edit /etc/opt/opsware/opswgw-agw*/opswgw.custom
# edit /etc/opt/opsware/opswgw-cgw*/opswgw.custom
# edit /etc/opt/opsware/opswgw-mgw*/opswgw.custom
Directive: opswgw.SoReuseAddr=false
```

3. Restart all gateways using the following command:

```
service opsware-sas restart
```

Redhat has a description of this issue on their website: <https://access.redhat.com/site/solutions/357683>

Windows Server OCLI Installation

If you plan to install the SA Command-line Interface (OCLI) on a Windows Server after upgrading to SA 9.17, you must update the SA Agent on that server to the latest version. Errors occur during OCLI installation on Windows servers with earlier SA Agent versions.

Installing Slices

If you install additional Slice Component bundle instances after patching the SA Core to version 9.1X, wayscript versions are set to version 9.10 rather than to the patch version. Use the following procedure to remedy the situation:

1. Identify the SA core server by checking the value field of the custom attribute `CORD_OPSPwayscripts`. To do so, log in to the SA Client as administrator (opsware admin user) and navigate to Administration > Customers. Select the Opsware Customer and view the Custom Attributes.

2. Log in to the SA Core server you identified in step 1 and execute the following two commands:

Command #1:

```
cd /var/opt/opsware/OPSWpatch/OPSWwayscripts/scripts
```

Command #2:

```
./post_after_startup.sh
```

This command will restore the wayscripts to the current CORD version.

3. If you also have a hotfix roll up deployed on top of the current CORD:
 - a. Log into the SA server which has the latest installed rollup package.
 - b. From the rollup's main directory (for example, rollup_9.15.013_59103), run the following command:

```
# ./tools/wRepair wayscript/.
```

Upgrades

Customized Settings

If you have customized such settings as Java heap settings, you must reapply your customizations after you install 9.17, as the settings are set to the SA default during installation or upgrade.

Upgrading SA Agents

Since 9.11, SA Agents have used Python 2.4.4.

The 9.17 SA Agents provide security enhancements. After you upgrade to SA 9.17, you should also upgrade to the 9.17 SA Agents on each Managed Server in the facility. If you do not upgrade your agents, the new functionality will not be available.

Post-Upgrade Tasks

Patch De-Duplication Steps for Windows Patching

Duplicate patches can be inadvertently created in the SA database if you import the Microsoft Patch Supplement (MPS) and then run the SA Patch Import process using the Microsoft Offline Patch Catalog (wsusscn2.cab). These duplicates can cause conflicts during remediation and compliance checks. SA provides a Windows patch de-duplication process that enables you to eliminate these duplicates and resolve this issue.

IMPORTANT: When to perform the de-duplication process:

The Windows patch de-duplication process is only required for SA upgrades, and is only required to be performed once:

- The de-duplication process is not required for fresh installs.
- If you have previously performed the de-duplication process when upgrading to SA 9.14, you do not need to do it again.
- If you are upgrading to 9.17 from any other version of SA, then the de-duplication process is required.

How do I know if I have duplicates?

Starting in 9.14, the patch database has a new field, “Last Import Summary, which reports if any duplicates were found in your database. In the SA Client, navigate to Administration > Patch Settings > Patch Database to view this field. If it displays a warning message after performing a patch import, then there are duplicates in your database. If duplicates are found, these de-duplication steps are strongly recommended.

Resolving Duplicates

To resolve this, a one-time de-duplication procedure is available that enables you to remove the duplicates and eliminate the source of these conflicts to prevent future duplication.

Step-by-step instructions are provided in the whitepaper, Resolving Conflicts between SA Patching and the MS Patch Supplement, which is available on the HP Software Support Online site under the 9.17 Server Automation release.

IMPORTANT: The de-duplication procedure varies based on your version of SA. For this reason, there will be multiple versions of this whitepaper, each providing release-specific instructions. Be sure to use the version of the whitepaper recommended for this release.

See the section Documentation Information for more information on how to find the whitepaper on the [HP Software Support portal](#).

Adding a Secondary Core after the SA Patch is Installed

While creating the secondary core on a RACed environment, the SA installer fails with the following error:

```
Processing object type SCHEMA_EXPORT/PROCEDURE/PROCEDURE^M
ORA-31685: Object type PROCEDURE:"AAA"."GATHER_AAA_SCHEMA_STATS" failed due
to insufficient privileges. Failing sql is:^M
CREATE PROCEDURE gather_aaa_schema_stats IS^M
v_count NUMBER:=0;^M
BEGIN^M
DBMS_STATS.GATHER_SCHEMA_STATS(ownname=>'AAA',
estimate_percent=>dbms_stats.auto_sample_size, degree=>10, method_opt=>'FOR
ALL COLUMNS SIZE AUTO', options=>'GATHER', cascade=>TRUE,
gather_temp=>TRUE);^M
EXCEPTION^M
WHEN OTHERS THEN^M
raise_application_error(-20001,'An error was encountered - '|^M
Processing object type SCHEMA_EXPORT/PROCEDURE/ALTER_PROCEDURE^M
```

To resolve this issue, on the database server:

1. Log into one of the RAC nodes and run the following commands:

```
su - oracle
Sqlplus opsware_admin/<password>
SQL> select * from dba_sys_privs where grantee = 'AAA'; -- privilege
'create procedure' will not be there
SQL> grant create procedure to aaa;
SQL> select * from dba_sys_privs where grantee = 'AAA'; -- privilege
'create procedure' should be there
```

2. Restart the SA installer. The installer determines that AAA is incomplete, cleans up the AAA schema, and reimports it.

Known Issues

This section describes known issues for SA 9.17. The tables list issues first alphabetically by Subsystem, then numerically within each subsystem..

- [Known Issues](#)

Known Issues

Module	QCCR1D	Platform	Symptom/Description	Workaround Note
Agent	150358	Linux	Cannot run RPM remediation on XEN6.02.	Execute the following script on XEN6.0.2 in order to grant access for other users: <code>chmod 755 /</code>
Agent	167917	Windows	The process of uninstalling an agent on Windows freezes and does not proceed without user input when the following command is run: <code>msiexec /x C:\Program Files\Opsware\agent\pylibs\cog\uninstall\agent_uni?ninstall_x64.msi /qn FORCE="1"</code>	Use the following command (which performs a silent agent install) instead: <code>C:\Program Files\Opsware\agent\pylibs\cog\uninstall>agent_uninstall.bat --force</code>
Agent	156515	All	Cannot add any new servers with SA Agents that are older than those supported by the release.	To register new servers you must use compatible SA Agent versions for your release.
Agent Deployment/Upgrade UI	152367	Windows	Manage Server menu is grayed out when trying to manage a Windows 2012 server with the Server Discovery and Agent Installation Tool (ADT).	The machines had the NetBIOS over TCP/IP protocol disabled. The scan returns no open ports, hence the Manage Server action is grayed-out.
Application Config Backend	160790	Linux	When you define CML template with two blocks and the configuration data for the template, data for the second block is loaded into the first block.	Set <code>delimiter="["</code> for first block to instruct the CML parser that first block ends when it reaches the starts of the second block. <code>@*firstfield;unordered-string-set;;delimiter="["@</code>

Module	QCCR1D	Platform	Symptom/Description	Workaround Note
APX Framework	142069/161564		Recurring Scheduled Extensible Discovery Job doesn't update servers.	None.
DOC-Administration	157288	All	Cannot edit my profile from HPSA Java Client when a user is part of Customer Group Admin "My Profile" window. An authorization error is thrown when this is attempted.	Edit My Profile using the SA Web Client.
DOC-Software Management	142320	All	Server Instance name is not automatically renamed at migration time.	Do not have the same name for appconfigs and templates before doing the data migration 7.8x -> post 7.8x If the configuration has a different name by the template name, this corner case will never appear. For example: use unix_group_emea.app and unix_group_emea.tpl.
Gateway	136865	All	The gateway interactive install used to have three options for contacting the core: 1) Via an existing Gateway's ProxyPort 2) Via direct connections (no NATs) 3) Via a temporary (local) Gateway Gateway installer now forces the use of ProxyPort and port 3003 and provides no choices.	Ensure that port 3003 is open in the firewall for the use of the SA Gateways.
HPUX Virtualization-HPVM Frontend	157368	HP-UX	Search with IP Address or Hostnames on Add Virtual Server screen does not list HP-UX machines. This issue is noticed for machines with vpar & hpvm software installed.	Servers can still be listed when "All" is selected on the Add Virtual Server screen.
Manage Platform	139516	Linux	Reprovisioning on server running XEN6 fails.	Standard provisioning can be used to install a new OS on the server.

Module	QCCR1D	Platform	Symptom/Description	Workaround Note
NA Integration	143667/143675	All	Changing integration from a more recent NA server to an older NA server doesn't work.	None.
OS Provisioning Backend	165435	Linux	The SA agent will fail to start when PXE booting a server with the "linux6-ogfs" option and the following message is displayed: "The agent successfully registered with HPSA Core, but not able to start."	Add in /opt/opsware/boot/kickstart/opsware/ks-rhel6SERVER-ogfs.cfg, in the %pre section of the file, time and date synchronization instructions like: hemlock --set --date="3/29/13 10:37:00" date +%D -s 2013-03-29 date +%T -s 10:37:00
OS Provisioning Backend	165440	Linux	Cannot install any G7 or Gen8 Servers that have AMD CPU's. This happens during the HPSA assisted installer process. This has been tested on both blades BL465 as well as rackmount servers DL365's. The final line during the installation process is: Fixing recursive fault but reboot is needed!	None.
OS Provisioning Backend	172963	Windows	OS provisioning fails for windows server 2012 VM's if customer specifies more than 1 partition in an unattended file and the first partition is too small for the OS to fit. The OS provisioning is failing with an error in the [specialize step].	Ensure the partition layout will not change the %SystemDriver% environment value.
OS Provisioning Backend	174726	Windows 2008	Winpe64-OGFS no longer contains drivers for BCM5709C NetXtreme II GigE (14e4:1639)	Use the 9.14 WIM image or update the current wim images with the needed drivers. For details see the KM1405856 knowledge article at http://support.openview.hp.com/selfsolve/document/KM1405856 .

Module	QCCR1D	Platform	Symptom/Description	Workaround Note
OS Provisioning Backend	177204	Windows	OS Provisioning of WinPE images will fail about 10% of the time when using a port channel, or two bonded NICs.	Disable the second NIC in either the switch or WinPE image resolves the issue.
OS Provisioning Backend	203636	Linux	User defined scripts are deleted from AutoYaST.xml when performing SLES OSBP provisioning.	None.
Patch Management Backend	137915/152933	Solaris	SAS: LNC Solaris supplement won't import.	None.
Patch Management Backend	146902	Solaris	Solaris 11 Patch policies should prevent the user from changing the reboot option to something other than the default option: 'Hold all server reboots until all actions are complete.'	Always ensure that the reboot option is 'Hold all server reboots until all actions are complete.' when remediating Solaris 11 Patch Policies.
Patch Management Backend	157363	Windows	Uninstall patch job message shows "The Agent reports that this software is not uninstallable." However, the patch can be manually uninstalled.	None.
Patch Management Backend	161643/168655	HP-UX	impor_ hpux_ metadata script should support new mechanism to download hp-ux software catalog file	
Patch Management Backend	139209	Windows	SA is preventing multi-binary patches containing non-installing components from being uninstalled.	A user can now uninstall Windows multi-binary patches that have non-installing components. For example, a Windows multi-binary patch may contain a non-installing component, such as an MSIPatchRegFix script that amends a registry file. This script is not installed or uninstalled. It just amends the registry file when the patch is installed, and it cannot be undone. Previously, SA prevented these types

Module	QCCR1D	Platform	Symptom/Description	Workaround Note
				of multi-binary patches from being uninstalled.
Patch Management Backend	144269	Windows	KB929300 fails to install if not remediated with 110806.	If performing an individual patch installation, the following patches must be installed as pairs in order for the job to succeed. KB929300 -- must be remediated along with 110806. KB2416400 -- must be remediated along with 2467659. For these pairs, if the patch installation job contains one of the patches in the pair but does not contain the other, the job will fail.
Patch Management Backend	204068	Windows	Provide option to skip importing superseded MBSA patches.	None.
Patch Management UI	136931/137014	Windows	Office viewer installed recommends Microsoft Office 2007 patches.	None.
Patch Management UI	148400/153334	Windows	After MBSA import completes, it takes a long time to update patches in library and database info in admin page.	None.
PowerShell Integration	180325	Windows	If a managed server has .NET Framework 4.0 as the latest .NET version installed then SA power shell integration won't work.	Problem is caused by a defect inside .Net Framework 4.0. Details are available at: http://support.microsoft.com/kb/2675468 Microsoft patch needs to be applied to the systems manifesting the behavior.
Server Module (SMO) Backend	156262	All	Running snapshot with Perform Inventory fails.	This issue is caused by incorrect usage of the product.

Module	QCCR1D	Platform	Symptom/Description	Workaround Note
Software Management Backend	164397	Linux	RPM Remediation is failing.	None.
Software Management Backend	149521	Linux	HTTP Error 500 Internal Server error encountered when using rhn_import on RHN satellite with an invalid encrypted password.	Change the rhn_pass field to the cleartext version and then reuse the --hide_password option on the new core.
Software Management Backend	154714	All	If a user imports a package in folder A, then imports the same package in folder B and tries to install it, the analysis phase might fail reporting the package from folder B as missing.	Delete the yum primary sqlite file from the managed server (in /var/opt/opsware/yum/plugins/cache/).
Software Management UI	178465	Linux	The SA client does not prevent attaching a policy of one customer to a device of another customer. This issue has no security impact since the units that have no matching customer are filtered out at runtime.	The units that do not have a matching customer are filtered out at runtime even if the UI does not help the user with the customer constraints, so there are no security holes.
Truth (Model Repository)	172371	All	During secondary core creation on Oracle 11.2.0.3 RACed environment, the following error is displayed: ORA-01031: insufficient privileges: grant execute on dbms_utility to data_owner.	Apply Oracle PSU 11.2.0.3.7 and re-run the HPSA installer.
Twist (Web Services Data Access Engine)	179479	All	The tokens used by recurring application configuration compliance jobs stop working after their one-year limited lifetime, causing the recurring jobs to stop working at one year also.	The workaround is to recreate the job.
Twist (Web Services Data Access Engine)	163506	Windows	You might experience slowness while Deleting Windows patches from the SA library.	Contact HP Support for a hotfix.

Module	QCCR1D	Platform	Symptom/Description	Workaround Note
Virtualization Backend	201488	SLES, RHEL	Cannot create SLES 12 and RHEL 7 VMs through virtualization since OS Sequences are deprecated.	None.
Way (Command Engine)	177571	Linux	<p>When adding new slices to a mesh with recerted cores, the installer fails with the following message:</p> <pre>Archive: /mnt/90/packages/././OPSWwayscripts-40.0.0.0.71.2.zip inflating: wayscripts.archive [Oct-11-2013 15:02:08] Running script wayscripts/post. Installing Wayscripts: ... Traceback (most recent call last): File "./util/wayscript_installer.py", line 878, in ? ... method: sign_and_update module: signor.py ... [Oct-11-2013 15:02:14] Component installation script encountered an error (exit status 1) [Oct-11-2013 15:02:14] Exiting Opsware Installer.</pre>	<p>Copy the following two directories from a slice that is already in the recert mesh to your new slice:</p> <pre>/var/opt/opsware/crypto/waybot/archives/ /var/opt/opsware/crypto/wordbot/archives/</pre>
Word (Software Repository)	194285	All	If a unit is uploaded with the same unit_loc of a previously deleted unit, then the deleted unit's REALM_UNITS is not removed from the table.	None.

Word (Software Repository)	194285	All	If a unit is uploaded with the same unit_loc of a previously deleted unit, then the deleted unit's REALM_UNITS is not removed from the table.	None.
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Fixed Issues

The Fixed Issues table includes issues that:

- Were found during SA 9.17 release period.
- Were in the Known Issues table, but are now fixed.

The table lists issues first by subsystem, then numerically within each subsystem.

Module	QCCR1D	Platform	Symptom/Description
Agent	182983	Linux	When bs_hardware erroneously returns '.....' for the chassis id and the serial number, each subsequent system installation results in a spin.permissions error because SA treats the new chassis id and serial numbers as duplicate records.
Agent	183515	Linux	OS provisioning jobs intermittently fail at HPSA agent installation step because of an rc: 2560 error.
Agent	185253/186003	AIX	Fallback to ISO-8859-1 in coglib when Python does not have support for the codeset defined in the environment's locale.
Agent	193649/193652	Windows	Agent doesn't work properly when code page cp28605 is set on managed Windows platform.
Agent	194419/194422	AIX	Agent init.d script fails to run on AIX when /etc/environment contains a variable declaration that already exists and it's read-only.

Module	QCCR1D	Platform	Symptom/Description
Agent	195034/195040	AIX	Unicode characters outside the ASCII codeset from server scripts are replaced with "?" (question marks).
Application Configuration	192952/192964	All	Application Configuration and Custom Attribute inheritance does not work correctly.
APX	189127/190393	Windows	SA Agent problem with vSphere customization spec on Windows Server 2012.
APX	187113/201441	All	When BRDC is used to sanitize a VM, it does not interact well with the vCenter configuration wizard. A static IP address configuration is clobbered and will be restored to DHCP.
Audit and Compliance	187751	Linux	<p>When performing audits on multiple servers (23), the following error appears in the job report for about 10 servers: "HPSA-1511 : A Web Services Data Access Engine (twist) method was called incorrectly. The application returned the displayed message.</p> <p>A Web Services Data Access Engine (twist) method was called incorrectly.</p> <p>The Audit result looks correct and complete for the failed servers, but waybot log report error messages similar to below: command finish date: 07/17/2014 02:13:38 UTC cmd results: {'\$opsware_error': ['OpswareError', {'timestamp': '', 'error_name': 'twist.usage', 'hostname': '', 'request': '', 'module': '', 'faultCode': 101, 'params': {}, 'line': -1, 'method': ''}]}</p>
Audit and Compliance	179435/194551	All	Audit result migration logic fails for non-compliant SCO policy check rules.
Audit and Compliance	176351/176353	Linux	Audit fails with snapshot as source on Windows 2008 R2 - Recursive directory structure option.
Audit and Compliance	187792	All	The Server Automation username and password credentials for a user used to import the content from HPLN into SA are displayed when importing content from HPLN.

Module	QCCR1D	Platform	Symptom/Description
Audit and Compliance	193457	Linux	If some devices are deemed Non-Compliant as result of an audit, and then you run a Remediate All operation, SA takes over an hour to display the Remediate Audit Results dialog, regardless of the number of devices requiring remediation.
Custom Extension	181151	Linux	The change password custom extension fails because the log character limit of 4000 has been exceeded, but the actual unreported error is "Password was recently used and is not valid for reuse."
Discovered Software SMO	178579		The signature catalog content is out of date. Looking for Tivoli Workload Scheduler 8.2.1 and 8.5.1 specifically https://hpln.hp.com/node/118/contentfiles .
DCML Export Tool (det)	181106	Linux	CBT should be faster when importing packages into a folder with large number of packages (>3000).
Gateway	172459	Linux	Monitoring the Gateway FLOWS from the SA Web Client it was observed that one or more connections remained in an ACK state with InFlight=-1 until cgws is restarted.
Gateway	182548/183766	All	Executing ttlg command with the -S option can cause core dumps that take up disk space
Gateway	186115/189178	All	Proxied TCP flows are subject to random hangs.
Global Filesystem/Shell	190679/190682	Linux	bash vulnerabilities CVE-2014-7169, CVE-2014-6271
Global Filesystem/Shell	167608	Linux	Intermittent failures have been observed running OGS commands in SA from OO. The return code given is simply -1 with no more detail. The following error can be seen in twist logs: 2013-05-20 14:21:05,656 WARNING Thread-29 [com.opsware.fido.impl.user.TokenFactory] [decryptTokenAsString] Caught Exception

Module	QCCR1D	Platform	Symptom/Description
			<p>javax.crypto.IllegalBlockSizeException: Input length must be multiple of 16 when decrypting with padded cipher</p> <p>at weblogic.work.ExecuteThread.run(ExecuteThread.java:173)</p>
Global Filesystem/Shell	182454/183768	All	Unexpected core dumps are getting emitted that could cause failure in running jobs and other functionality in HPSA.
Jobs	189298	Solaris	If you enter a ticket ID when you run a job, the ticket does not show in the email results.
Jobs	185038	Linux	<p>The output for script jobs executed on the managed servers is not properly formatted when generating CSV reports.</p> <p>If the script output contains more than one line then it will not be displayed correctly when opening the CSV report with a spreadsheet application like Microsoft Excel. Instead of being displayed into a single cell, it will span over multiple lines in the spreadsheet.</p>
Jobs	188399	Linux	<p>Consolidated CSV export of script results adds trailing newline into quoted output field.</p> <p>If you try to import this CSV file into Excel, it won't import the Output field correctly due to this newline character being embedded.</p>
Managed Platforms	170040	Linux	Certain non-remediated software policies (previously detached) are installed instead of uninstalled when executing method: SoftwarePolicyService.startRemediateNow.
OCC Client Framework	168719	All	Editing the package script causes heavy CPU use and takes a long time because the interface lags behind the keystrokes.
OS Provisioning Backend	190284/190516	Linux	MBC job does not fail when DHCP reconfiguration fails.
OS Provisioning Backend	159441	Linux	OS provisioning fails at the SA Agent installation step with error code 32512 for SLES and error code 1024 for RHEL.

Module	QCCR1D	Platform	Symptom/Description
OS Provisioning Backend	120072/161507	Linux	MBC fails if a realm has multiple satellites and one of them is down.
Patch Management	193736/202687	All	Multi-platform patch exceptions trigger "Incorrect Device Platform or Account" sys diag errors.
Patch Management	177309	Windows	Windows Patch compliance scans might fail with a traceback error.
Patch Management	179631	Linux	While patching approximately 100 Unix-based servers (Linux, Solaris and AIX), the environment becomes unresponsive and requires a restart. The problem was found to be circular dependencies of few packages with AIX platforms.
Patch Management	183949	Windows	In certain environments, export Patch Info to CSV file can take up to 15 to 20 minutes for two devices. It was found that the extra time is used to create/refresh cache. After the cache is created, the second export for the same two devices takes about 3 minutes.
Patch Management	183881/184046	Solaris	solpatch_import command tool failed to import Solaris patches.
Patch Management	185871	AIX	The following error is displayed when remediating a patch policy on an AIX 6.1 server: Error Messages: An unexpected error has occurred. Please contact your HP Server Automation Administrator.Traceback (most recent call last): File "/var/opt/opsware/waybot/scripts/opsware.swprov.doer~45.0.5", line 7214, in doitInstallUnitsFinish AttributeError: GroupReq instance has no attribute 'get_greatest_satisfying_fileset'
Patch Management	187052	All	The following traceback error is displayed: Traceback (most recent call last): File ".\way.py", line 367, in doCommand ... File ".\nt\nt_hotfix_handler.py", line 512, in filterMbsa20ResultByInstalledOrRecommended TypeError: unpack non-sequence

Module	QCCR1D	Platform	Symptom/Description
Patch Management	190708	Solaris	Solaris Patches that are categorized as IDR and Test cannot be imported and remediated: File "/var/opt/opsware/waybot/scripts/opsware.swprov.doer~40.0.1", line 5633, in doitInstallUnitsFinish self.platformSpecificPostProcessing() File "/var/opt/opsware/waybot/scripts/opsware.solpatch_applicability~40.0.0", line 422, in testUnitInner patch = self.patchDB.find(patch_name)
Patch Management	191519	Linux	After importing the Microsoft patch catalog, about 90% of the previously imported patches are erroneously displayed as non-imported.
Patch Management	202022	Solaris	If you import the latest Solaris patch supplement from the HPLN, the Solaris 10 1/13 patch bundle is not shown in the output of --available_bundles, so the bundle cannot be imported to the SA core with solpatch_import tool.
Patch Management	174155	AIX	When a master software policy embeds several child software policies, and the master policy is remediated, the following error is displayed: "Install tivoli.tsm.client.oracle.aix.64bit-5.5.2.0 Will Not Install" the reason being "Fileset is missing requisite bos.rte.v=5.r>0" When the failing child policy is remediated alone all the policy items it contains install properly. No changes are necessary for this to happen.
Patch Management UI	176141	Windows	Patch compliance export for a group of servers to a CSV file from the SA Client takes a long time.
Patch Management UI	187191	Linux	Viewing a Windows server's Patches with Policies or Exceptions (Inventory > Patches > Patches with Policies or Exceptions) can generate an "ORA-00913: too many values" error, that can be seen in the SA Client javaws.log
Patch Management UI	188110	Windows	After attaching a windows patch policy to a server, the SA Client doesn't show that the policy is available for remediation until the cache is reloaded - either manually or via the timed cache updater.
Server Management	188755	Windows	Two RDP sessions to a Windows 2012 R2 managed server through HPSA causes the python.exe process to use 100% CPU.

Module	QCCR1D	Platform	Symptom/Description
UI			
Server Module (SMO) Backend	186501	Linux	Logging in to a slice fails with the following Exception error: Exception: com.opsware.rmi.SpokeConnectionException Spoke connection failed. In addition, scheduled jobs fail to run and Authentication errors are displayed in the spoke logs.
Software Management Backend	177166	Linux	Preview mode can fail after 5 minutes timeout with the following error: Non-zero exit code (None) from dependency solver.
Software Management Backend	177995	Linux	When installing a zip package, all zip files install on the server, but the following error is still displayed: Job Error: "Unzip returned status 256. Some files may not be present".
Software Management Backend	180436	Linux	RPM remediation jobs hang, and the waybot becomes unresponsive.
Software Management Tools	192225	Linux	When you run rhn_import, one of the following error messages is displayed: 1) RHN SSO Login Failed (cannot locate login form) Maximum retries exceeded: RHNDownloadAuthError: Package download error: Download login failed OR: 2) Unexpected error: HTMLParseError: EOF in middle of construct, at line 53, column 21
Software Management Tools	192987/193227	Linux	rhn_import fails to connect to rhn network if proxy with basic authentication is configured.
Software Management Tools	193663	Linux	When you run rhn_import, the following error message is displayed: Unexpected error: httperror_seek_wrapper: HTTP Error 403: Forbidden

Module	QCCR1D	Platform	Symptom/Description
Software Management Tools	129781/133942	All	SA Web Client using excessive amount of local PC resources (memory & CPU) ending in eventual PC crash when updating software packages. No errors generated.
Software Management Tools	201463/201464	Linux	Provide support for RHEL 7 packages using rhn_import tool.
Software Management	144785	All	The output from the installation of an AIM (Application Installation Media) package gets truncated.
Spin (Data Access Engine)	170523	All	For every single cert request, the current algorithm parses and validates *all* certificates in a store, sorts them, and uses the oldest one. As the highwater (number of cached certs) is increased, the issue gets worse and becomes a blocker when trying to recert thousands of servers.
Spoke (Global File System)	162289/162450	All	Storage snapshot: ORA-00060: deadlock detected while waiting for resource.
Twist (Web Services Data Access Engine)	192429	Windows	Performance issue when scheduling significant numbers of windows patch remediation jobs. If the call to startRemediate takes longer than 1800 seconds, it will time out.
Twist (Web Services Data Access Engine)	195146/201979	All	When connecting to one server, followed by a second, the authentication performed on the second connect uses the authentication from the previous connection
Twist (Web Services Data Access Engine)	179528	All	The database is severely loaded, causing general performance problems for the production mesh.
Twist (Web Services Data Access Engine)	190492	All	Cannot log in to the SA Client.

Module	QCCR1D	Platform	Symptom/Description
Word (Software Repository)	183704	Linux	Core content mirroring doesn't work correctly. With mirroring enabled, users finds a file that exists in both mmword_cache and mmword_local (one valid and the other invalid).
Word (Software Repository)	160527	All	Current wordbot and agws default config allows anyone with a bootstrap cert to download any unit.

Documentation Information

This section discusses documentation information for this release.

Related Documents

The following white paper applies to this release:

[Best Practices for using SA rhn_import to download Red Hat content for RHEL 7](#)

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