

HP 3PAR Service Processor Software 4.2.x Release Notes

Abstract

These release notes are for storage administrators of the HP 3PAR Storage System. This document is cumulative and includes subsequent updates relating to the latest HP 3PAR Service Processor Software 4.2.0.



© Copyright 2015 Hewlett-Packard Development Company, L.P.

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Acknowledgments

Microsoft®, Windows®, Windows XP®, and Windows NT® are U.S. registered trademarks of Microsoft Corporation.

Contents

1	Introduction.....	4
	Related Documentation.....	4
2	Supported Platforms.....	5
3	Service Processor Software 4.2.0 Release.....	6
	What's New in the Service Processor.....	6
	Modifications to the Service Processor.....	7
	Known Issues with the Service Processor.....	7
	Cancel Validation does not cancel the validation process (Issue 95947).....	7
	SPOCC: Clicking an item in the left pane opens another tab in Internet Explorer 10 (Issue 97642).....	8
	SP does not warn user that another session of SPMAINT is running (Issue 98345).....	8
	Error when Hyper-V is installed with non-administrator user (Issue 95804).....	8
	Error when you use ESX VSP to update HP 3PAR OS software: "Can not find spPkgList on CDROM" (Issue 92718).....	8
	Admithw not started after verifying that firmware patch installed successfully (Issue 98952).....	8
	Cannot view SPLOR contents using custom user account that was created by using SPMAINT (Issue 100399).....	9
	Incorrect time is set for VSP on Windows Hyper-V Server 2008 (Issue 100477).....	9
	Clicking Kill Perf Analysis multiple times stops the httpd daemon (Issue 119527).....	9
4	Service Processor Software 4.2.0 P001 Release.....	10
	What's New in the Service Processor.....	10
	Modifications to the Service Processor.....	10
	Known Issues with the Service Processor.....	10
	Time difference of an hour between the SP and StoreServ (Issue 102446).....	10
5	Service Processor Software 4.2.0 P002 Release.....	11
	Modifications to the Service Processor.....	11
6	Service Processor Software 4.2.0 P003 Release.....	12
	Modifications to the Service Processor.....	12
7	Service Processor Software 4.2.0 P004 Release.....	13
	Modifications to the Service Processor.....	13

1 Introduction

The HP 3PAR Service Processor Software 4.2.x Release Notes document is cumulative and includes information about the base release of HP 3PAR Service Processor Software 4.2.0 and subsequent updates. Read this document before you install the SP 4.2.x software.

HP 3PAR open source software is available on the HP Portal in the Software Depot Kiosk:

www.software.hp.com/kiosk

- User name: 3PAROPEN_KIOSK
- Password: 3PAROPENSOURCE

Related Documentation

The following documents provide information related to HP 3PAR StoreServ Storage systems and the HP 3PAR Operating System.

These documents are available on the HP Storage Information Library:

<http://www.hp.com/go/storage/docs>

For information about...	Read the...
Using the Command Line Interface (CLI) to configure and administer HP 3PAR StoreServ Storage systems	<i>HP 3PAR Command Line Interface Administrator's Manual</i> and <i>HP Command Line Interface Reference</i>
Using the HP 3PAR Management Console graphical user interface to configure and administer HP 3PAR storage systems	<i>HP 3PAR Management Console User's Guide</i>
HP 3PAR storage system concepts and terminology	<i>HP 3PAR StoreServ Storage Concepts Guide</i>
Using Remote Copy	<i>HP 3PAR Remote Copy Software User's Guide</i>
Determining HP 3PAR storage system hardware specifications, installation considerations, power requirements, networking options, and cabling	<i>HP 3PAR StoreServ 10000 Storage Physical Planning Manual</i> <i>HP 3PAR E-Class/F-Class Storage System Physical Planning Manual</i> <i>HP 3PAR T-Class Storage System Physical Planning Manual</i> <i>HP 3PAR StoreServ 7000 Storage Site Planning Manual</i> <i>HP 3PAR StoreServ 7450 Storage Site Planning Manual</i>
Using the service processor to communicate with the HP 3PAR Storage system	<i>HP 3PAR Service Processor Software User Guide</i>

With the SP 4.2.0 release, the following documentation changes have been made:

- The information contained in the *HP 3PAR Service Processor Troubleshooting Guide* has been moved to the *HP 3PAR Service Processor User Guide*.
- The *HP 3PAR Service Processor Troubleshooting Guide* has been deprecated and is no longer offered as a standalone document.

2 Supported Platforms

The HP 3PAR Configuration Matrix for HP 3PAR OS 3.1.1 and later contains information about supported hardware and software platforms for HP 3PAR Service Processor 4.2.0 and subsequent releases.

NOTE: The physical Service Processor and virtual Service Processor (VSP) are supported on only English-locale platforms.

The following table describes the Service Processors supported with release level 4.2.0.

Service Processor	Platform type	Supported models
Virtual Service Processor	Virtual	ESXi 4.x, ESXi 5.0, ESXi 5.1, ESXi 5.5
Virtual Service Processor	Virtual	Hyper-V Server 2008 R2 and Hyper-V Server 2012
HP ProLiant	Physical	DL320e, DL360e
Supermicro	Physical	Supermicro II

For more details, see the Single Point of Connectivity Knowledge for HP Storage Products (SPOCK) website:

<http://www.hp.com/storage/spock>

NOTE: Beginning with the SP 4.1 release, the SP ID uses one of the following formats:

- 7-character SP ID: The literal **SP** string (2 characters) + 5 digits (for example, **SP09997**). This ID format is used for legacy SPs.
- 12-character SP ID: The literal **SP000** string (5 characters) + the HP 3PAR StoreServ 7000 7-digit 3PAR serial number that is located on a label affixed to the node enclosure (DCN1). The label is on a tab on the back right of the enclosure near Power Cooling Module1 (PCM 1, the PCM on the right). For example, if the HP 3PAR StoreServ 7000 3PAR serial number is **1601234**, the Service Processor ID will be **SP0001601234**.

For systems remaining at HP 3PAR OS 3.1.1.xxx, HP currently supports the use of only Service Processor software version SP-2.5.x to continue managing the array.

- Using 3.1.1.xxx with SP 4.2.0 is not currently supported.
- Only those systems being upgraded to HP 3PAR OS 3.1.2 or later should upgrade the Service Processor software to SP-4.2.0.
- If you are upgrading from HP 3PAR OS 3.1.1 and SP 2.5.2, you must first upgrade the SP to version 4.1.0 and then to version 4.2.0.
- There is no direct upgrade path from version 2.5.2 to version 4.2.0.

For more information about upgrading to version 4.1.0, see the *HP 3PAR Service Processor Software Upgrade Instructions*, published December 2012, and the *HP 3PAR Service Processor Software 2.5.2 P002 Upgrade Instructions*, published October 2013.

3 Service Processor Software 4.2.0 Release

The following release notes are for the HP 3PAR Service Processor (SP) Software 4.2.0 release.

What's New in the Service Processor

HP 3PAR Service Processor functions as the communication interface between the customer's IP network and HP 3PAR Central by managing all service-related communications in both directions. The Service Processor leverages the industry-standard HTTP over Secure Socket Layer (HTTPS) protocol to secure and encrypt data communication.

This release includes the following new enhancements:

- The SPMAINT 1.16.1 menu item is no longer a step in the HP 3PAR OS upgrade process. The 1.16.1 menu is used only to install SP software. All loading and staging of SP software and HP 3PAR OS software is done by using the SPMAINT 1.16.2 menu. This includes repackaging (if needed) and staging on the SP and on the array (if the OS software is at version 3.1.3 or later).
- When SP setup and connection to HP HQ are successfully completed, the SP is configured to accept automatic software downloads from HP HQ. Downloaded software updates will not be installed but will be available on the SP or HP 3PAR StoreServ Storage system for later installation.
- SP 4.2.0 adds support for Microsoft Hyper-V Server 2008 R2, Microsoft Hyper-V Server 2012 and Microsoft Hyper-V 2012 R2 for the virtual Service Processor (VSP).
- The Service Processor Onsite Customer Care (SPOCC) utility was enhanced with a step-by-step upgrade process interface for both SP software upgrade and HP 3PAR OS software upgrade.
- New drives are automatically recognized.
- Automatic firmware updates are enabled.
- Notifications and alerts are enabled for new software releases.
- The Automated Drive Log Collection feature is added.
- Support for an SP to Node Rescue scenario is added.
- Support is added for node rescue from a virtual SP using the eth0 port.
- Support is added for HP 3PAR Policy Server 6.1.5.

NOTE: With the release of HP 3PAR OS 3.1.3 and SP 4.2, HP 3PAR StoreServ 7000 customers now have the option of self-upgrades for HP 3PAR OS software. If your HP 3PAR StoreServ 7000 storage system is still on HP 3PAR OS 3.1.2 please contact HP or an HP authorized service provider to plan the HP 3PAR OS software upgrade. Once on HP 3PAR OS 3.1.3 and SP 4.2 you can self-upgrade your system with any future OS and SP releases. There are different methods for upgrading the HP 3PAR OS and SP software. The recommended method is Customer Self-Upgrade (CSU) using the SPOCC GUI included with the HP 3PAR Service Processor. This full-featured Upgrade Wizard included in version 4.2 of the Service Processor Software guides the end-user through the software upgrade process from end-to-end for both the HP 3PAR OS and Service Processor.

Modifications to the Service Processor

The following issues have been addressed in this release.

Issue ID	Item	Description
71269	Unable to add NTP server on VSP with SPmaint and SPOCC	The NTP server IP address will be configured as a server entry.
84161	Users should be able to re-run Storage System Setup Wizard	The issue in which the Storage System Setup Wizard may fail or hang before you start the "Set storage system network configuration" step has been resolved. You do not need to use the workaround that was described in the <i>HP 3PAR Service Processor 4.1.x Release Notes</i> .
86785	SP Setup Wizard spins on "Set date and time" in the Setup Progress page	The issue in which the "Set date and time" step appears to stop responding on the Setup Progress page of the Service Processor Setup Wizard has been resolved.
88187	Unable to add DNS via SPOCC and also not prompted for domain name	The issue in which users cannot modify the DNS configuration of the SP by using SPOCC has been resolved. You do not need to use the workaround that was described in the <i>HP 3PAR Service Processor 4.1.x Release Notes</i> .
90128	The Service Processor did not upload crashdumps and InSplores after high visibility elevation	This fix will increase the maximum file transfer size limit to nearly 2GB.
90261	Remote access is possible if customer sets outbound only	This change modifies the Secure Service Collector configuration to use the SP's loopback IP address instead of the SP's host/public IP address when a Remote Operations request is made from HQ for SPOCC connections. When remote operations is disabled the firewall rules will block connections to 127.0.0.1, port 443, preventing the remote operations connection to be made.
92336	Error with 3parcust user permissions in CCA menu	The issue in which SPMAINT does not correctly identify the user account when you log in to the SP as the 3parcust user by using the system console has been resolved. You are no longer incorrectly prohibited from using some commands that the 3parcust account should have permission to use, and you do not need to use the workaround that was described in the <i>HP 3PAR Service Processor 4.1.x Release Notes</i> .
95084, 96333	Maintenance Mode setting is not supported	This fix allows Maintenance Mode to be supported on arrays with names longer than 13 characters in length.
98183	The Service Processor scrubber is not removing all the required data on the weekly file; IP addresses remain visible	Handling the case to remove all IP addresses, SP mac addresses and e-mail addresses by default for any file not explicitly handled.

Known Issues with the Service Processor

Cancel Validation does not cancel the validation process (Issue 95947)

In SPOCC, during the upgrade of the HP 3PAR OS, you navigate to the *Check prerequisites* page, click **Next**, and notice that the pre-checks are being validated. If you then click **Cancel Validation**, the user interface indicates that the validation process was canceled; however, in the background, the validations are still running.

This behavior is by design so that the SPOCC user interface can remain responsive during an attempt to cancel the validation process.

SPOCC: Clicking an item in the left pane opens another tab in Internet Explorer 10 (Issue 97642)

When you are using Windows Internet Explorer 10 to run SPOCC and click **Update** in the left navigation pane, a second browser tab opens. This second browser tab does not include the left navigation pane of SPOCC. This issue may occur after you upgrade from Internet Explorer 9 to Internet Explorer 10.

Workaround: Change the default tabbed browser settings. To do this:

1. In Internet Explorer, click the **Tools** icon, and then click **Internet Options**.
2. On the **General** tab, click **Tabs**.
3. In the Tabbed Browser Settings dialog box, click to clear the **Enable Tab Groups** and **Open each new tab next to the current tab** check boxes.
4. Click **OK**.

SP does not warn user that another session of SPMAINT is running (Issue 98345)

If you log in to SPOCC and try to install an SP software update while an SPMAINT session is running and also installing an SP software update, you receive no warning, the SPOCC update fails, and SPMAINT displays an error such as the following:

```
SPcommctlr[915]: segfault at 22a0 ip 00be61d1 sp bfb79900 error 6 in libST_lm.so[be3000+6000]
```

You must not try to install two SP software updates simultaneously.

Error when Hyper-V is installed with non-administrator user (Issue 95804)

If you try to install Hyper-V as a non-administrator user, you receive an error message, and the installation fails.

Workaround: To work around this issue, run the `build.exe` file as an administrator by right-clicking the file name and then clicking **Run as administrator**.

Error when you use ESX VSP to update HP 3PAR OS software: "Can not find spPkgList on CDROM" (Issue 92718)

If you try to update the OS software by using SPMAINT and a CD or DVD with a virtual Service Processor (VSP) that is running on an ESX server, you may receive the following error message:

```
Can not find spPkgList on CDROM
```

This issue may occur when the `/mnt/cdrom` on an ESX virtual machine is not mounted properly or is not automatically updated when you put in a new CD or DVD.

Workaround: To work around this issue, manually unmount and then remount the `/mnt/cdrom`.

Admithw not started after verifying that firmware patch installed successfully (Issue 98952)

After you install a firmware patch, the "admit hardware" (`admithw`) command may not run automatically as expected. Post update tasks are not run automatically when upgrading from 3.1.2.x version to 3.1.2.x version, downgrading from 3.1.3.x to 3.1.2.x version and installing the patches on 3.1.2.x.

Workaround: To work around this issue, run `admithw` or `starttask admithw -ni` manually after installing a firmware patch. Daisy-chained DC3 cages must be updated manually.

Cannot view SPLOR contents using custom user account that was created by using SPMAINT (Issue 100399)

You log in to the SP by using the 3parcust account, start SPMAINT, and then create a custom user account. You then log out and launch SPOCC by using the custom account. When you run a SPLOR and click **View SPLOR contents**, you receive the following error message:

Sorry, you are not permitted to view this directory.

However, if you create a custom user account by using SPOCC instead of SPMAINT, you are able to view SPLOR contents as expected.

Incorrect time is set for VSP on Windows Hyper-V Server 2008 (Issue 100477)

When you use the SP Setup Wizard to configure the VSP on Hyper-V, if NTP is not configured and you use the manual date/time selection method to select the time zone, the date and time are incorrect. This issue occurs because after the SP setup process and reboot are complete, the date and time of the SP are synced with the host system time. This is a known limitation of Hyper-V with Linux clients.

Workaround: To work around this issue, use one of the following methods:

- Specify an NTP server rather than set the time zone manually.
- Set VSPs that are deployed from one Hyper-V server to the same time zone as that server.
- Set the Hyper-V time zone to UTC by using the date and time settings on the Windows desktop. When you do this, the VSP is set to the correct time after the VSP reboot.

NOTE: This workaround is viable only if the Windows server is being used only as a Hyper-V server for VSPs. This change will affect all of the users of the Windows server, and it may also cause problems for any Windows virtual machines that are being deployed.

Clicking **Kill Perf Analysis** multiple times stops the httpd daemon (Issue 119527)

When you launch the Performance Analyzer and then click **Kill Perf Analysis** multiple times, the httpd daemon stops working and you cannot launch SPOCC.

When this happens, you must manually reboot the SP from SPMAINT:

1. Enter 1 for **SP Control/Status**.
2. Enter 2 for **Reboot SP**.

Clicking **Kill Perf Analysis** only once will not cause this issue.

4 Service Processor Software 4.2.0 P001 Release

The following release notes are for the HP 3PAR Service Processor (SP) Software 4.2.0 P001 release.

NOTE: HP 3PAR Service Processor Software 4.2.0 P001 is a mandatory release.

What's New in the Service Processor

The following issues are addressed in this release:

- A new menu option, **Webserver Configuration** is available for configuring SSL connections.
- While running in Secure Network Mode, the Service Processor may stop sending files to headquarters (HQ). This patch addresses the issue. In addition, a watch-dog capability on the Service Processor can now revive or restart the agent responsible for sending files to HQ. This additional watch-dog capability provides another level of fault-tolerance.
- For customer sites where remote operations have been disabled, this patch accounts for the fact that the agent was deliberately disabled for remote operations and restarting the agent will not change its state.

Modifications to the Service Processor

The following issues are addressed in this release:

Issue ID	Item	Description
94625	A new menu option, Webserver Configuration is available for configuring SSL connections.	The user 3parcust can configure the web server on the Service Processor to only accept SSL connections using strong ciphers. From the SPOCC main menu, select SPmaint then Network Configuration → Webserver Configuration . Click the radio button next to Maximum to allow strong ciphers and then click Apply Changes to save this setting.
101202	File transfer overdue for 3PAR StoreServ	While running in Secure Network Mode, the Service Processor may stop sending files to HQ. This patch addresses the issue.
103813	Agent restarts every five minutes	While running in Secure Network Mode and with remote operations disabled, the agent restarts every five minutes, disrupting transmissions of large files to HP HQ. This patch addresses the issue.

Known Issues with the Service Processor

Time difference of an hour between the SP and StoreServ (Issue 102446)

If the SP and StoreServ are set up in a region that stops using daylight saving time, there appears to be a difference of one hour during the daylight saving time date range between the SP and the StoreServ.

5 Service Processor Software 4.2.0 P002 Release

The following release notes are for the HP 3PAR Service Processor (SP) Software 4.2.0 P002 release.

NOTE:

- HP 3PAR Service Processor (SP) Software 4.2.0 P002 is cumulative and includes updates from 4.2.0 P001.
- HP 3PAR Service Processor (SP) Software 4.2.0 P002 is a mandatory release.

SP 4.2.0 GA-P002 enforces the following HP 3PAR operating system upgrade and downgrade restrictions:

- You must install SP-4.2.0.GA-P002 before upgrading to 3.1.3.230-MU1
- The only allowed upgrade path from 3.1.3.202-GA is to 3.1.3.230-MU1
 - Offline Mode — If the current OS is 3.1.3.202-GA, you can upgrade to 3.1.3.230-MU1 in offline mode (3.1.3.202-P02 is not required)
 - Online Mode — Install 3.1.3.202-P02 before upgrading to 3.1.3.230-MU1 in online mode
- Downgrading to 3.1.3.202-GA is not allowed from any OS level

Modifications to the Service Processor

The following issues have been addressed in this release

Issue ID	Item	Description
107699	SPOCC and SPMAINT improperly handle upgrading the operating system to and from 3.1.3.GA	For OS versions 3.1.3.MU1 and after: if the OS is at 3.1.3.GA you must first upgrade to 3.1.3.MU1. This release prevents either upgrade or downgrade to 3.1.3 GA.
107771	Update status displays success even though the update fails.	When performing an online upgrade from 3.1.3 GA to 3.1.3 MU1, the upgrade status shows that the upgrade succeeded and the log shows that the update is complete and performs update checks. This release allows either an offline upgrade to 3.1.3 MU1 or installation of 3.1.3 GA-P02.
107844	The user is allowed to perform an advanced upgrade even though pre-update checks fail.	When performing an upgrade from 3.1.3 GA to 3.1.3 MU1 the pre-update checks fail but the user is prompted to continue the upgrade. This release allows either an offline upgrade or install of 3.1.3 GA-P02 and then an advanced upgrade.

6 Service Processor Software 4.2.0 P003 Release

The following release notes are for the HP 3PAR Service Processor (SP) Software 4.2.0 P003 release.

HP 3PAR Service Processor (SP) Software -4.2.0.GA-29.P003 is cumulative and includes updates from 4.2.0 P001 and 4.2.0 P002.



IMPORTANT:

- SP-4.2.0.GA-29.P003 is a mandatory patch for SP-4.2.0.GA-29.
- At the end of the update, the Service Processor will restart. It may take up to 5 minutes before the SP is available after the restart and you will be disconnected during that time.

Modifications to the Service Processor

SP-4.2.0.GA-29. P003 addresses the following issues:

Issue ID	Item	Description
117947	Shellshock Bash vulnerability	Addresses the Shellshock Bash vulnerability (CVE-2014-6271 and CVE-2014-7169).
119156	POODLE SSL vulnerability	Addresses the POODLE SSL vulnerability (CVE-2014-3566).
118537	Open SSL security vulnerabilities	Addresses several Open SSL vulnerabilities (CVE-2014-0224)

7 Service Processor Software 4.2.0 P004 Release

The following release notes are for the HP 3PAR Service Processor (SP) Software 4.2.0 P004 release.

HP 3PAR Service Processor (SP) Software - 4.2.0.GA-29.P004 is cumulative and includes updates from 4.2.0 P001, 4.2.0 P002, and 4.2.0 P003.



IMPORTANT:

- SP-4.2.0.GA-29.P004 is a mandatory patch for SP-4.2.0.GA-29.
- At the end of this update, the Service Processor will restart. It may take up to 5 minutes before the SP is available after the restart and you will be disconnected during that time.

Modifications to the Service Processor

SP-4.2.0.GA-29.P004 addresses the following issues:

Issue ID	Item	Description
116115	SP stops transferring files to secure server after rebooting the SP	After a reboot is performed on the SP, transfers in the outbound queue time out, preventing transmission to the HP 3PAR secure server. This patch addresses the issue.
127409	Security enhancement	Eliminates potential low-risk security vulnerabilities.