



Hewlett Packard
Enterprise

HPE 3PAR OS 3.2.2 MU4 Patch 118

Release Notes

Abstract

This release notes document is for Patch 3.2.2 MU4 P118.

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Notices

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Purpose

The HPE 3PAR Patch 118 provides several quality improvements.

❗ **IMPORTANT:** See the [HPE 3PAR OS and Service Processor Software Update Guide \(HPE 3PAR OS 3.2.x HPE 3PAR Service Processor 4.x\)](#) for instructions on updating your specific software.

Guidance

This is a critical patch.

Prerequisites

- Minimum Service Processor required: SP-4.4.0 + latest SP patch.
- Base OS: 3.2.2.612-MU4. See the Requires field in the Patch details.

Patch details

Patch ID: P118

Synopsis: Provides several critical quality improvements

Date: July 27, 2018, 14:54:40 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-cachesvr, tpd-kernelpatch, tpd-libcli, tpd-sysmgr, tpd-prerevert

Obsoletes: OS-3.2.2.612-P108

Requires: OS-3.2.2.612-MU4, OS-3.2.2.612-P59, OS-3.2.2.612-P84, OS-3.2.2.612-P92, OS-3.2.2.612-P94, OS-3.2.2.612-P98, OS-3.2.2.612-P113

Build Version: 3.2.2.753

Notes: Description of the obsoleted patches:

Patch ID: P108

Synopsis: Prevents unwanted interaction between region moves and flash cache

Date: March 27, 2018, 13:53:55 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-sysmgr, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.612-MU4, OS-3.2.2.612-P59, OS-3.2.2.612-P84, OS-3.2.2.612-P92, OS-3.2.2.612-P94, OS-3.2.2.612-P98

Build Version: 3.2.2.731

Notes:

NOTE:

Hewlett Packard Enterprise recommends installing patches in the same sequence as they are released, unless instructed otherwise.

Modifications

HPE 3PAR OS 3.2.2 MU4 P118 addresses the following issues:

Issue ID: 235834

Description: Improved error handling within the HPE 3PAR OS for certain drive models to avoid data inconsistency issues in the rare instance where the affected drives perform an internal reset.

Affected Drive Models:

AREX0400S5xnNTRI	AREX3840S5xnFTRI	AREA0920S5xnNTRI
AREX0480S5xnNTRI	AREA7680S5xnNTRI	AREA1920S5xnNTRI
AREX0920S5xnNTRI	AREA15T4S5xnNTRI	AREA3840S5xnNTRI
AREX1920S5xnNTRI	AREA7680S5xnFTRI	AREA0920S5xnFTRI
AREX3840S5xnNTRI	AREA15T4S5xnFTRI	AREA1920S5xnFTRI
AREX0920S5xnFTRI	AREA0400S5xnNTRI	AREA3840S5xnFTRI
AREX1920S5xnFTRI	AREA0480S5xnNTRI	

NOTE: AREA models greater than 4 TB and all AREX drives are impacted by this issue. However, once installed, this patch provides improvements for all AREA and AREX drives.

Issue ID	Description
161413	The system manager user space garbage collector (AFL) may not free objects needed by the system manager which can lead to unrestricted memory consumption and an eventual unexpected restart of the system manager.
208712	A Fibre Channel HBA may unexpectedly restart due to a time out resulting in a firmware diagnostic file being generated.
221985	During controller node integration processing, an array with only two controller nodes may experience an unexpected array restart.
226847, 165016	During an online upgrade certain FibreChannel requests may be dropped. This may lead to a brief interruption of the host I/O during an online upgrade.
227837, 233919	In some environments, the <code>cachesvr</code> process memory consumption grows unbounded over time which may, in turn, cause other processes to unexpectedly restart.

Table Continued

Issue ID	Description
232561	When removing the Adaptive Flash Cache (AFC) while data movement operations are active, (<code>tunesys</code> , <code>updatevv</code> , <code>promotevv</code>) underlying Logical Disks (LDs) may become "orphaned" which can lead to unexpected controller node restarts or an unexpected array restart.
238391	An online upgrade may cause an unexpected controller node restart when the new version of 3PAR OS requests information from an administrative volume still using the old 3PAR OS version.
239274, 216799	An online upgrade may cause an unexpected array restart due to a mismatch of values between the OS versions.

Affected components

Component	Version
System Manager	3.2.2.753 (P118)
TPD Kernel Patch	3.2.2.753 (P118)

NOTE: Applying an HPE 3PAR OS patch can cause a restart of the affected OS components. This restart is an expected behavior, which will generate events and alerts. The system continues to serve data, but existing CLI or SSMC sessions could be interrupted.

Verification

The installation of Patch 118 can be verified from an interactive CLI session. Issue the CLI command `showversion -a -b` to verify that Patch 118 is listed:

```
showversion -a -b
Release version 3.2.2.612 (MU4)
Patches: P56,P59,P94,P98,P113,P118
```

Component Name	Version
CLI Server	3.2.2.744 (P113)
CLI Client	3.2.2.744
System Manager	3.2.2.753 (P118)
Kernel	3.2.2.612 (MU4)
TPD Kernel Code	3.2.2.612 (MU4)
TPD Kernel Patch	3.2.2.753 (P118)
CIM Server	3.2.2.744 (P113)
WSAPI Server	3.2.2.744 (P113)
Console Menu	3.2.2.612 (MU4)
Event Manager	3.2.2.612 (MU4)
Internal Test Tools	3.2.2.612 (MU4)
LD Check Tools	3.2.2.612 (MU4)
Network Controller	3.2.2.724 (P98)
Node Disk Scrubber	3.2.2.612 (MU4)
PD Scrubber	3.2.2.612 (MU4)
Per-Node Server	3.2.2.724 (P98)
Persistent Repository	3.2.2.612 (MU4)
Powerfail Tools	3.2.2.612 (MU4)
Preserved Data Tools	3.2.2.612 (MU4)
Process Monitor	3.2.2.626 (P56)
Rolling Upgrade Tools	3.2.2.612 (MU4)
Software Updater	3.2.2.744 (P113)
TOC Server	3.2.2.724 (P98)
VV Check Tools	3.2.2.724 (P98)
File Persona	1.2.2.6-20161017
SNMP Agent	1.8.0
SSH	6.6p1-4~bpo70+1
VASA Provider	2.2.11 (P113)
Firmware Database	3.2.2.612 (MU4)
Drive Firmware	3.2.2.612 (MU4)
UEFI BIOS	04.08.38
MCU Firmware (OKI)	4.8.29
MCU Firmware (STM)	5.2.53
Cage Firmware (DC1)	4.44
Cage Firmware (DC2)	2.64
Cage Firmware (DC3)	08
Cage Firmware (DC4)	2.64
Cage Firmware (DCN1)	4078
Cage Firmware (DCN2)	4078
Cage Firmware (DCS1)	4078
Cage Firmware (DCS2)	4078
Cage Firmware (DCS5)	1.93
Cage Firmware (DCS6)	1.93
Cage Firmware (DCS7)	4078
Cage Firmware (DCS8)	4078
QLogic QLA4052C HBA Firmware	03.00.01.77
QLogic QLE8242 CNA Firmware	04.15.08
QLogic 8300 HBA FC Firmware	08.01.05

QLogic 8300 HBA FCoE Firmware	08.01.05
QLogic 8300 HBA iSCSI Firmware	05.07.06
Emulex LP11002 HBA Firmware	02.82.x10
Emulex LPel2002 HBA Firmware	02.03.x11
Emulex LPel2004 HBA Firmware	02.03.x11
Emulex LPel6002 HBA Firmware	10.6.248.4
Emulex LPel6004 HBA Firmware	10.6.248.4
3PAR FC044X HBA Firmware	200A8
LSI 9201-16e HBA Firmware	17.11.00
LSI 9205-8e HBA Firmware	17.11.00
LSI 9300-8e HBA Firmware	07.00.00

NOTE: When displaying the `showversion` command output from the SP, the CLI Client version is fixed in the SP code and may differ from the output from any other system.

Websites

General websites

Hewlett Packard Enterprise Information Library

www.hpe.com/info/EIL

Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix

www.hpe.com/storage/spock

Storage white papers and analyst reports

www.hpe.com/storage/whitepapers

For additional websites, see **[Support and other resources](#)**.

Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:
<http://www.hpe.com/assistance>
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:
<http://www.hpe.com/support/hpesc>

Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates:

Hewlett Packard Enterprise Support Center

www.hpe.com/support/hpesc

Hewlett Packard Enterprise Support Center: Software downloads

www.hpe.com/support/downloads

Software Depot

www.hpe.com/support/softwaredepot

- To subscribe to eNewsletters and alerts:
www.hpe.com/support/e-updates
- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:

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- ❗ **IMPORTANT:** Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HPE Passport set up with relevant entitlements.
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Customer self repair

Hewlett Packard Enterprise customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website:

<http://www.hpe.com/support/selfrepair>

Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

If your product includes additional remote support details, use search to locate that information.

Remote support and Proactive Care information

HPE Get Connected

www.hpe.com/services/getconnected

HPE Proactive Care services

www.hpe.com/services/proactivecare

HPE Proactive Care service: Supported products list

www.hpe.com/services/proactivecaresupportedproducts

HPE Proactive Care advanced service: Supported products list

www.hpe.com/services/proactivecareadvancedsupportedproducts

Proactive Care customer information

Proactive Care central

www.hpe.com/services/proactivecarecentral

Proactive Care service activation

www.hpe.com/services/proactivecarecentralgetstarted

Warranty information

To view the warranty for your product or to view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products* reference document, go to the Enterprise Safety and Compliance website:

www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional warranty information

HPE ProLiant and x86 Servers and Options

www.hpe.com/support/ProLiantServers-Warranties

HPE Enterprise Servers

www.hpe.com/support/EnterpriseServers-Warranties

HPE Storage Products

www.hpe.com/support/Storage-Warranties

HPE Networking Products

www.hpe.com/support/Networking-Warranties

Regulatory information

To view the regulatory information for your product, view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at the Hewlett Packard Enterprise Support Center:

www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional regulatory information

Hewlett Packard Enterprise is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at:

www.hpe.com/info/reach

For Hewlett Packard Enterprise product environmental and safety information and compliance data, including RoHS and REACH, see:

www.hpe.com/info/ecodata

For Hewlett Packard Enterprise environmental information, including company programs, product recycling, and energy efficiency, see:

www.hpe.com/info/environment

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