Hewlett Packard Enterprise

HPE 3PAR OS 3.2.2 MU6 Patch 119 Release Notes

Abstract

This release notes document is for Patch 3.2.2 MU6 P119.

Purpose

The HPE 3PAR OS 3.2.2 MU6 P119 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: 4.4.0 + latest SP Patch.

• Base OS: 3.2.2.709. See the Requires field in the Patch details.

Patch details

Patch ID: P119

Synopsis: Provides several critical quality improvements

Date: July 17, 2018, 11:15:42 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-api, tpd-cachesvr, tpd-cli, tpd-kernelpatch, tpd-libauth, tpd-libcli, tpd-libpamauthhelper, tpd-libtpdapi, tpd-libtpdtcl, tpd-sysmgr, tpd-update, tpd-utils, tpd-vasa, tpd-wsapi, tpd-prerevert

Obsoletes: OS-3.2.2.709-P114

Requires: OS-3.2.2.709-MU6,OS-3.2.2.709-P99

Patches Included: None

Patches Partially Superseded: OS-3.2.2.709-P99

Patches Obsolete by Combination: None

Supports Revert: Yes

Build Version: 3.2.2.750

Notes: Description of the obsoleted patches:

Patch ID: P114

Synopsis: Improved error handling for certain drive models

Date: June 13, 2018, 14:03:48 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-libcli, tpd-sysmgr, tpd-vasa, tpd-libtpdapi, tpd-libtpdtcl, tpd-prerevert

Obsoletes: OS-3.2.2.709-P110

Requires: OS-3.2.2.709-MU6,OS-3.2.2.709-P99

Build Version: 3.2.2.746

Notes: Description of the obsoleted patches:

Patch ID: P110

Synopsis: Provides quality improvements

Date: April 09, 2018, 09:33:45 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.709-MU6,OS-3.2.2.709-P99

Build Version: 3.2.2.733

NOTE:

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

Modifications

HPE 3PAR 119 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: 154391, 229530

Description: During an online 3PAR OS upgrade, the upgrade checks performed by the array may report that the incorrect controller is down.

Issue ID: 157422

Description: A process can hold its configuration lock for too long which causes the system manager to time out.

Table Continued

Issue ID: 161413

Description: 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.

Issue ID: 208712

Description: A Fibre Channel HBA may unexpectedly restart due to a time out resulting in a firmware diagnostic file being generated.

Issue ID: 215184, 225692, 225313

Description: A misbehaving physical disk (PD) may cause the entire loop to go offline affecting all the PDs on that loop.

Issue ID: 221985

Description: During controller node integration processing, an array with only two controller nodes may experience an unexpected array restart.

Issue ID: 226847, 165016

Description: 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.

Issue ID: 228035

Description: The controller node owning a VV can unexpectedly restart causing the array to unexpectedly restart if the internal log processing encounters an invalid internal log entry.

Issue ID: 231779

Description: Windows 2012R2 hosts may become unresponsive for several seconds when an I/O is aborted by the host. This can also delay persistent port fail-overs by several seconds. The issue is resolved.

Issue ID: 232538, 241248

Description: If a communications issue exists with the LDAP server, the SSMC will not successfully receive an authentication which requires the user to re-enter credentials. CLI or SSH sessions may also not be established.

Issue ID: 232561

Description: When removing Adaptive Flash Cache while data movement operations are active, (`tunesys`, `updatevv`, `promotevv`, etc...), the flash cache LD removal may not be successful and could result in unowned LDs which can then lead to unexpected controller node restarts.

Issue ID: 233223

Description: When a Virtual Volume ID (VVID) is reused, there is a possibility that the old VV using that ID has not been completely removed by the system which can, in extreme cases, lead to the array unexpectedly restarting.

Table Continued

Issue ID: 233560

Description: Running the command sequence `createvlun/removevlun/createvlun` within a very short time, against VASA volumes can result in 100% CPU utilization.

Issue ID: 233873, 194691

Description: An incorrect speed setting was used when SAS cables are connected to DCN2 cage types via an AOC cable. This resulted in `checkhealth` reporting an issue.

Issue ID: 233919

Description: In some environments, the `cachesvr` process memory consumption grows unbounded over time which may, in turn, cause other processes to unexpectedly restart.

Issue ID: 235622

Description: An internal inconsistency is encountered during a memory page allocation which causes the controller node to unexpectedly restart.

Issue ID: 236286

Description: During snapshot processing between controller nodes, a deadlock condition can be encountered. This can result in the host I/O being delayed and the array may become unresponsive.

Issue ID: 238391

Description: 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.

Issue ID: 239274, 216799

Description: An online upgrade may cause an unexpected array restart due to a mismatch of values between the OS versions.

Issue ID: 241356

Description: The CIM service does not respond to requests and cannot be activated with the CLI command `startcim`.

Affected components

Component	Version
CLI Server	3.2.2.750 (P119)
System Manager	3.2.2.750 (P119)
TPD Kernel Patch	3.2.2.750 (P119)
CIM Server	3.2.2.750 (P119)
WSAPI Server	3.2.2.750 (P119)

Table Continued

Software Updater	3.2.2.750 (P119)
VASA Provider	2.2.12 (P119)

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 119 can be verified from an interactive CLI session. Issue the CLI command `showversion -a -b` to verify that Patch 119 is listed:

```
showversion -a -b
Release version 3.2.2.709 (MU6)
Patches:  P99,P119

Component Name                       Version
CLI Server                           3.2.2.750 (P119)
CLI Client                           3.2.2.750
System Manager                       3.2.2.750 (P119)
Kernel                               3.2.2.709 (MU6)
TPD Kernel Code                      3.2.2.709 (MU6)
TPD Kernel Patch                     3.2.2.750 (P119)
CIM Server                           3.2.2.750 (P119)
WSAPI Server                         3.2.2.750 (P119)
Console Menu                         3.2.2.709 (MU6)
Event Manager                        3.2.2.709 (MU6)
Internal Test Tools                  3.2.2.709 (MU6)
LD Check Tools                       3.2.2.709 (MU6)
Network Controller                   3.2.2.725 (P99)
Node Disk Scrubber                   3.2.2.709 (MU6)
PD Scrubber                          3.2.2.709 (MU6)
Per-Node Server                      3.2.2.725 (P99)
Persistent Repository                3.2.2.709 (MU6)
Powerfail Tools                      3.2.2.709 (MU6)
Preserved Data Tools                 3.2.2.709 (MU6)
Process Monitor                      3.2.2.709 (MU6)
Rolling Upgrade Tools                3.2.2.709 (MU6)
Software Updater                     3.2.2.750 (P119)
TOC Server                           3.2.2.725 (P99)
VV Check Tools                       3.2.2.725 (P99)
File Persona                         1.2.4.3-20170601
SNMP Agent                           1.8.0
SSH                                  6.6p1-4~bpo70+1
VASA Provider                        2.2.12 (P119)
Firmware Database                    3.2.2.709 (MU6)
Drive Firmware                       3.2.2.709 (MU6)
UEFI BIOS                            04.08.39
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)                 2.86
Cage Firmware (DCS6)                 2.86
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    05.07.07
Emulex LP11002 HBA Firmware       02.82.x10
Emulex LPe12002 HBA Firmware      02.10.x03
Emulex LPe12004 HBA Firmware      02.10.x03
Emulex LPe16002 HBA Firmware      10.6.248.8
Emulex LPe16004 HBA Firmware      10.6.248.8
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          07.10.01
```

NOTE: When displaying the `showversion` command output from the SP, the CLI Client version is static 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:

www.hpe.com/support/AccessToSupportMaterials

ⓘ **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.

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 information for your product, see the links provided below:

HPE ProLiant and IA-32 Servers and Options
    www.hpe.com/support/ProLiantServers-Warranties
HPE Enterprise and Cloudline 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

Documentation feedback

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