HPE 3PAR OS 3.2.2 MU4 Patch 101 Release Notes

Abstract

This release notes document is for Patch 101 and intended for HPE 3PAR Operating System Software 3.2.2.612 (MU4).

Purpose

The HPE 3PAR OS 3.2.2 MU4 Patch 101 provides support for specific drive models while leaving the DOPE and DOPM drives at their current firmware level. The patch adds support for new 480G, 1920G, and 3840G drives to systems with 3.2.2 MU4, without upgrading the following older drives:

DOPE0480S5xnNMRI

DOPE1920S5xnNMRI

DOPM3840S5xnNMRI

Guidance

- This patch is intended for 3PAR OS 3.2.2.612-MU4.
- This is an as needed patch.

Prerequisites

- SP prerequisite: SP-4.4.0.GA-58 plus the latest SP patch
- Base OS: OS-3.2.2.612-MU4. See Requires in Patch details.

Patch details

Patch ID: P101

Synopsis: Provides support for drive FW updates

Date: January 16, 2018, 19:36:50 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P57,OS-3.2.2.612-P74,OS-3.2.2.612-P95

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

Build Version: **3.2.2.718**

Patches Included: None

Patches Partially Superseded: None

Patches Obsolete by Combination: None

Supports Revert: Yes

Notes: Description of the obsoleted patches:

  Patch ID: P57

  Synopsis: Provides support for drive FW updates and new drives

  Date: February 21, 2017, 15:51:53 PST

  Description: See the Release Notes for details about this patch

  Affected Packages: tpd-drivefw, tpd-fwdb, tpd-sysmgr, tpd-prerevert

  Obsoletes: OS-3.2.2.612-P50

  Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P56

  Build Version: 3.2.2.628

  Notes: Description of the incorporated patches:

    Patch ID: P50

    Synopsis: Provides support for drive FW updates and new drives

Date: December 08, 2016, 14:35:12 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-fwdb, tpd-drivefw, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.612-MU4

Build Version: 3.2.2.617

Notes:

Patch ID: P74

Synopsis: Provides support for drive FW updates and new drives

Date: April 25, 2017, 12:44:06 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-utils, tpd-prerevert

Obsoletes: OS-3.2.2.612-P58,OS-3.2.2.612-P73

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P59

Build Version: 3.2.2.647

Notes: Description of the incorporated patches:

Patch ID: P58

Synopsis: Provides support for drive FW updates and new drives

Date: March 16, 2017, 21:06:22 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P56,OS-3.2.2.612-P57

Build Version: 3.2.2.636

Notes:

Patch ID: P73

Synopsis: Provides additional support for SSD drives

Date: April 14, 2017, 14:45:58 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P72

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P56,OS-3.2.2.612-P57,OS-3.2.2.612-P58

Build Version: 3.2.2.645

Notes: Description of the incorporated patches:

Patch ID: P72

Synopsis: Provides additional support for SSD drives

Date: March 31, 2017, 19:44:14 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-fwdb, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.2.612-MU4,OS-3.2.2.612-P56,OS-3.2.2.612-P57,OS-3.2.2.612-P58

Build Version: 3.2.2.641

Notes:

Patch ID: P95

Synopsis: Provides support for new drive and drive FW updates

Date: October 30, 2017, 17:48:31 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

Obsoletes: OS-3.2.2.612-P91

Requires: OS-3.2.2.612-MU4, OS-3.2.2.612-P59,OS-3.2.2.612-P74,OS-3.2.2.612-P84

Build Version: 3.2.2.710

Notes: Description of the obsoleted patches:

   Patch ID: P91

   Synopsis: Provides support for new second source drives and drive FW updates

   Date: August 14, 2017, 15:29:35 PDT

   Description: See the Release Notes for details about this patch

   Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

   Obsoletes: OS-3.2.2.612-P90

   Requires: OS-3.2.2.612-MU4, OS-3.2.2.612-P59, OS-3.2.2.612-P74,OS-3.2.2.612-P84

   Build Version: 3.2.2.682

   Notes: Description of the incorporated patches:

      Patch ID: P90

      Synopsis: Provides support for drive FW updates and enhanced logging.

      Date: July 31, 2017, 11:43:58 PDT

      Description: See the Release Notes for details about this patch

      Affected Packages: tpd-drivefw, tpd-fwdb, tpd-prerevert

      Obsoletes: None

      Requires: OS-3.2.2.612-MU4, OS-3.2.2.612-P59,OS-3.2.2.612-P74,OS-3.2.2.612-P84

      Build Version: 3.2.2.680

      Notes:

NOTE:
- Applying an HPE 3PAR OS patch can cause a restart of the affected OS components. When components are restarted, events and alerts are generated and this is an expected behavior. The system continues to serve data, but existing CLI or SSMC sessions could be interrupted.
- Hewlett Packard Enterprise recommends installing patches in the same sequence as they are released, unless instructed otherwise.
- 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.

Modifications

Patch 101 provides firmware updates for the following 3PAR StoreServ Storage drive models:

CAUTION:

Arrays running on prior to 3.2.2 MU4 P57 should NOT upgrade to P57, P58, P74, P90, P91 and P95 and should instead use P101.

NOTE:

HPE drive models DOPE and DOPM will not be upgraded (remain at the current FW level).

Drive	Category	Capacity	Speed	StoreServ 10000	StoreServ 7000	StoreServ 8000	StoreServ 20000	FW
STHB1200S5xeF010	FC	1.2TB	10K	Yes	Yes	Yes	Yes	3P00
STHB0600S5xeN010	FC	600GB	10K	Yes	No	No	No	3P02
STHB1200S5xeN010	FC	1.2TB	10K	Yes	No	No	No	3P02
STHB1800S5xeN010	FC	1.8TB	10K	Yes	No	No	No	3P02
HAKP2000S5xeN7.2	NL	2TB	7.2K	Yes	Yes	Yes	Yes	3P03
HAKP4000S5xeN7.2	NL	4TB	7.2K	Yes	Yes	Yes	Yes	3P03
HAKP6000S5xeN7.2	NL	6TB	7.2K	Yes	Yes	Yes	Yes	3P03
HVIPC0300GBFC15K	FC	300GB	15K	Yes	No	No	No	3P05
HVIPC0600GBFC15K	FC	600GB	15K	Yes	No	No	No	3P05
HCBF0600S5xeN010	FC	600GB	10K	Yes	Yes	Yes	Yes	3P05
HCBF1200S5xeN010	FC	1.2TB	10K	Yes	Yes	Yes	Yes	3P05
HCBF1800S5xeN010	FC	1.8TB	10K	Yes	Yes	Yes	Yes	3P05
HCBF1200S5xeF010	FC	1.2TB	10K	No	Yes	Yes	Yes	3P05
SMBP4000S5xeN7.2	NL	4TB	7.2K	Yes	Yes	Yes	Yes	3P01
SMBP6000S5xeN7.2	NL	6TB	7.2K	Yes	Yes	Yes	No	3P01
SMBP4000S5xeF7.2	NL	4TB	7.2K	Yes	Yes	Yes	Yes	3P01
SMBP6000S5xeF7.2	NL	6TB	7.2K	Yes	Yes	Yes	Yes	3P01
AREA1920S5xnFTRI	SSD	1.92TB	100K	Yes	Yes	Yes	Yes	3P00
AREA3840S5xnFTRI	SSD	3.84TB	100K	No	Yes	Yes	Yes	3P00
AREA0920S5xnFTRI	SSD	920GB	100K	No	Yes	Yes	Yes	3P00
SLTN0450S5xnN010	10K	450GB	10K	Yes	Yes	No	No	3P02
SLTN0600S5xnN010	10K	600GB	10K	No	Yes	No	No	3P02
SLTN0900S5xnN010	10K	900GB	10K	Yes	Yes	No	No	3P02
SLTN0450S5xnE010	10K	450GB	10K	Yes	Yes	No	No	3P01
SLTN0900S5xnE010	10K	900GB	10K	Yes	Yes	No	No	3P01
SLTN0450S5xnF010	10K	450GB	10K	Yes	Yes	No	No	3P01

SLTN0900S5xnF010	10K	900GB	10K	Yes	Yes	No	No	3P01
AREA0480S5xnNTRI	SSD	480GB	100K	No	Yes	Yes	Yes	3P01
AREA0400S5xnNTRI	SSD	400GB	150K	No	Yes	Yes	Yes	3P01
AREA0920S5xnNTRI	SSD	920GB	150K	No	Yes	No	No	3P01
AREA1920S5xnNTRI	SSD	1.92TB	100K	Yes	Yes	Yes	Yes	3P01
AREA3840S5xnNTRI	SSD	3.84TB	100K	No	Yes	Yes	Yes	3P01
DDYE0400S5xnNMRI	SSD	400GB	150K	No	Yes	Yes	Yes	3P03
DDYE1920S5xnNMRI	SSD	1.92TB	100K	No	Yes	Yes	Yes	3P03
DDYE3840S5xnNMRI	SSD	3.84TB	100K	No	Yes	Yes	Yes	3P03
DDYM7680S5xnNMRI	SSD	7.68TB	100K	No	No	Yes	Yes	3P03
AREA15T4S5xnNTRI	SSD	15.3TB	100K	No	No	Yes	Yes	3P03
AREA15T4S5xnFTRI	SSD	15.3TB	100K	No	No	Yes	Yes	3P00

Affected components

Component	Version
Firmware Database	3.2.2.718 (P101)
Drive Firmware	3.2.2.718 (P101)

Installing Drive Firmware

After a firmware patch is installed successfully, the firmware (drive or cage) must be updated manually. To update the firmware, run the CLI command `starttask admithw -ni`. This command runs the update process as a task. Record the task ID for monitoring purposes. Monitor the task for successful completion using the CLI command `showtask -d <task_ID>`. See the appropriate upgrade documentation for details on patch installation. If the task fails, resolve the issue due to which the task failed. After the issue is resolved, issue the CLI command `starttask admithw -ni`. Note the new task ID number and monitor the `admithw` task completion.

Verification

The installation of P101 can be verified from an interactive CLI session. Issue the CLI command `showversion -a -b` to verify that P101 is listed.

```
showversion -a -b
Release version 3.2.2.612 (MU4)
Patches:  P56,P59,P84,P92,P94,P101

Component Name                 Version
CLI Server                     3.2.2.712 (P94)
CLI Client                     3.2.2.476
System Manager                 3.2.2.712 (P94)
Kernel                         3.2.2.612 (MU4)
TPD Kernel Code                3.2.2.612 (MU4)
TPD Kernel Patch               3.2.2.712 (P94)
CIM Server                     3.2.2.612 (MU4)
WSAPI Server                   3.2.2.612 (MU4)
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             3.2.2.612 (MU4)
Node Disk Scrubber             3.2.2.612 (MU4)
PD Scrubber                    3.2.2.612 (MU4)
Per-Node Server                3.2.2.687 (P92)
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               3.2.2.712 (P94)
TOC Server                     3.2.2.687 (P92)
VV Check Tools                 3.2.2.612 (MU4)
File Persona                   1.2.2.6-20161017
SNMP Agent                     1.8.0
SSH                            6.6p1-4~bpo70+1
VASA Provider                  2.2.10
Firmware Database              3.2.2.718 (P101)
Drive Firmware                 3.2.2.718 (P101)
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 LPe12002 HBA Firmware       02.03.x11
Emulex LPe12004 HBA Firmware       02.03.x11
Emulex LPe16002 HBA Firmware       10.6.248.4
Emulex LPe16004 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
```

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 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:

ww.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:

ww.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:

ww.hpe.com/info/reach

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

ww.hpe.com/info/ecodata

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

ww.hpe.com/info/environment

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