HPE 3PAR OS 3.2.2 MU4 Patch 92 Release Notes

Abstract

This release notes document is for Patch 92 and intended for HPE 3PAR Operating System Software 3.2.2.612 (MU4).

Purpose

The HPE 3PAR OS 3.2.2 MU4 Patch 92 adds quality improvements including OS upgrade and controller node down recovery.

Guidance

- This is a recommended patch for HPE 3PAR OS 3.2.2 MU4.
- All HPE 3PAR StoreServ Storage systems running 3.2.2 MU4 are susceptible to issues corrected in this patch.

Prerequisites

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

Patch details

Patch ID: P92

Synopsis: Adds quality improvements including OS upgrade and node down recovery

Date: August 26, 2017, 19:27:11 PDT

Affected Packages: tpd-cli, tpd-nodesvr, tpd-update, tpd-libcli, tpd-kernelpatch, tpd-sysmgr, tpd-tocsvr, tpd-prerevert

Obsoletes: OS-3.2.2.612-P87

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

Build Version: 3.2.2.687

Patches Partially Superseded: OS-3.2.2.612-P59, OS-3.2.2.612-P84

Patches Obsolete by Combination: None

Revert Supported: Yes

Patches Included: None

Notes: Description of the incorporated patches:

    Patch ID: P87

    Synopsis: Provides Common Criteria updates

    Date: July 13, 2017, 15:26:51 PDT

    Description: See the Release Notes for details about this patch

    Affected Packages: tpd-cli, tpd-prerevert

    Obsoletes: None

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

    Build Version: 3.2.2.673

    Notes:

NOTE:

- Applying this patch to the 3PAR OS might restart the affected OS components. With these restarts, events and alerts might be generated and this is an expected behavior. The system continues to serve data, but existing CLI or SSMC sessions might 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 might differ from the output displayed from any other system.

Modifications

Patch 92 includes:

Issue ID	Description
199754 212401 211833	Corrects an issue when upgrading drive FW on DOPE drive models, the drive becomes unresponsive and rejects I/O requests
178672 199904 168180	Prevents an unexpected controller node restart when region moves occur on Thinly Provisioned Virtual Volumes (TPVVs).
184963	Corrects an issue where Remote Copy LUNs were inaccessible to the host when the LUNs are in a transitioning state during System Manager startup, even when this was no issue on the secondary array in the Remote Copy configuration.
205730	Prevents unexpected controller node restarts when the DDCscan encounters a VV that has already been removed as a result of vvcopy or promotevv that has not completed successfully.
188681 212903	Resolves an issue with Asynchronous Streaming Remote Copy configurations where on the primary array, during controller node recovery, metadata was not properly processed which lead to an unexpected controller node restart.
209286	Corrects a situation when running `compactcpg` on CPG containing a fully provisioned VV with set size of 6+1 and 8 TB, or greater in size, the System Manager becomes unresponsive.
170695	Addresses an issue where the array becomes unresponsive due to system level TDVV snapshots that are not removed when the TDVV RW snapshot is removed.
210195	Resolves an issue where an array with six controller nodes will experience a decreased dedup ratio. This issue does not affect arrays with a two, four or eight controller nodes.

Table Continued

Issue ID	Description
188463	Resolves an issue where, after properly shutting down the array, if a power regulator failure prevents a controller node from booting, the array will not become available to serve data because it is waiting for the missing controller node to boot.
213124	Prevents unexpected controller node restarts, which can lead to an unexpected array restart, when snapshots are removed out of order.

Verification

The installation of P92 can be verified from an interactive CLI session. Issue the `showversion -a -b` CLI command to verify that P92 is listed:

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

Component Name                  Version
CLI Server                      3.2.2.687 (P92)
CLI Client                      3.2.2.687
System Manager                  3.2.2.687 (P92)
Kernel                          3.2.2.612 (MU4)
TPD Kernel Code                 3.2.2.612 (MU4)
TPD Kernel Patch                3.2.2.687 (P92)
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                3.2.2.687 (P92)
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               3.2.2.612 (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 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:

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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