Hewlett Packard Enterprise

HPE 3PAR OS 3.2.2 MU4 Patch 60 Release Notes

Abstract

This release notes document is for Patch 60 and intended for HPE 3PAR Operating System Software 3.2.2.612 (MU4).

Contents

Purpose

The HPE 3PAR OS 3.2.2 MU4 Patch 60 provides several quality improvements.

Guidance

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

Prerequisites

- SP prerequisite: 4.4.0.GA-58 plus the latest SP patch (if any)
- OS prerequisites: OS-3.2.2.612-MU4,OS-3.2.2.612-P59

Patch details

Patch ID: P60

Synopsis: Provides several quality improvements

Date: May 03, 2017, 10:49:57 PDT

Description: See the Release Notes for details about this patch

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

Obsoletes: None

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

Build Version: 3.2.2.652

Supports Revert: Yes

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 60 addresses following issues:

Issue ID	Description
195415	Resolves an issue where the cache server (cachesvr) unexpectedly restarts while an **updatevv** is in progress where there are snapshots present. This can also lead to high CPU utilization and CLI becomes unresponsive.
193815	Resolves an issue where stale data is detected in the cache server (cachesvr) after a peer volume object state change is processed by System Manager. This primarily occurs when the **admitvv** task runs during online imports. This results in the online import not completing.
170348	Resolves an issue where the System Manager terminates unexpectedly due to an invalid pointer when an API makes a direct call to the System Manager to obtain information about LUNs.
198296	Resolves an issue where a controller node unexpectedly restarts if a Virtual Volume (VV) block is in progress on an internal system volume and the ddcscan process attempts to scan the same VV.
200304	Addresses an issue where an unexpected controller node restart occurs due to a rare problem with TPVV metadata consistency.
199218	Reduces host I/O stall times while processing updatevv of VV sets and while importing consistency groups.
159516	Reduces host I/O stall times near the end of a Peer Motion migration where consistency groups are being used.

Affected components

Component	Version
System Manager	3.2.2.649 (P60)
TPD Kernel Patch	3.2.2.649 (P60)

Verification

The installation of P60 can be verified from an interactive CLI session. Issue the CLI command `showversion -a -b` to verify that P60 is listed:

```
cli% showversion -a -b
Release version 3.2.2.612 (MU4)
Patches:   P56,P59,P60

Component Name                     Version
CLI Server                         3.2.2.642 (P59)
CLI Client                         3.2.2.642
System Manager                     3.2.2.652 (P60)
Kernel                             3.2.2.612 (MU4)
TPD Kernel Code                    3.2.2.612 (MU4)
TPD Kernel Patch                   3.2.2.652 (P60)
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                    3.2.2.612 (MU4)
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                   3.2.2.642 (P59)
TOC Server                         3.2.2.612 (MU4)
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

Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (**docsfeedback@hpe.com**). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.