



Hewlett Packard
Enterprise

HPE 3PAR OS 3.2.1 MU3 Patch 38 Release Notes

This release notes document is for Patch 38 and intended for HPE 3PAR Operating System Software 3.2.1.292 (MU3).

Part Number: QL226-99198
Published: August 2016
Edition: 1

© Copyright 2016 Hewlett Packard Enterprise Development LP

The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Acknowledgments

Intel®, Itanium®, Pentium®, Intel Inside®, and the Intel Inside logo are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Microsoft® and Windows® are trademarks of the Microsoft group of companies.

Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.

Java and Oracle are registered trademarks of Oracle and/or its affiliates.

UNIX® is a registered trademark of The Open Group.

Documentation

For the latest version of this document, go to www.hpe.com/info/enterprise/docs.

Contents

1 Purpose.....	4
Guidance.....	4
Prerequisites.....	4
Patch details.....	4
Warnings, cautions and notes.....	5
Affected components.....	6
Modifications.....	6
Verification.....	6

1 Purpose

HPE 3PAR OS 3.2.1 MU3 P38 provides several quality improvements for Persistent Ports, Remote Copy (RC), XCOPY, and Virtual Volume (VV) management.

Guidance

This patch is intended for 3PAR OS 3.2.1 MU3. This is a recommended patch. All supported hardware platforms are susceptible to the issues corrected in this patch.

Prerequisites

- SP: 4.3.0.GA-24-MU1 plus the latest SP patch (if any) or 4.3.0.GA-32-MU3 plus the latest SP patch (if any)
- OS: OS-3.2.1.292-MU3 + P17 + P18 + P30

Patch details

Patch ID: P38

Synopsis: Provides several quality improvements

Date: July 27, 2016, 07:46:50 PDT

Description: See the Release Notes for details about this patch

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

Obsoletes: OS-3.2.1.292-P37

Requires: OS-3.2.1.292-MU3 + P17 + P18 + P30

Build Version: 3.2.1.452

Support Revert: Yes

Notes: Description of the incorporated patches:

Patch ID: P37

Synopsis: Corrects behavior for unsupported SCSI commands on PE LUNs

Date: May 05, 2016, 17:00:10 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-prerevert

Obsoletes: OS-3.2.1.292-P31

Requires: OS-3.2.1.292-MU3 + P17 + P18

Build Version: 3.2.1.428

Notes: Description of the incorporated patches:

Patch ID: P31

Synopsis: Provides several important quality improvements

Date: March 24, 2016, 00:58:31 PDT

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-prerevert

Obsoletes: OS-3.2.1.292-P26

Requires: OS-3.2.1.292-MU3 + P18

Build Version: 3.2.1.396

Notes: Description of the incorporated patch:

Patch ID: P26

Synopsis: Prevents host I/O hangs due to disk port or host side driver issues.

Date: February 09, 2016, 15:34:26 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-prerevert

Obsoletes: OS-3.2.1.292-P25

Requires: OS-3.2.1.292-MU3 + P18

Build Version: 3.2.1.376

Notes: Description of the incorporated patch:

Patch ID: P25

Synopsis: Prevents an array hang/restart where 16Gb adapters are installed

Date: December 03, 2015, 17:22:34 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-prerevert

Obsoletes: OS-3.2.1.292-P24

Requires: OS-3.2.1.292-MU3 + P19

Build Version: 3.2.1.362

Notes: Description of the incorporated patch:

Patch ID: P24

Synopsis: Prevents host I/O disruption when deleting large RC snapshots.

Date: November 16, 2015, 17:35:15 PST

Description: See the Release Notes for details about this patch

Affected Packages: tpd-kernelpatch, tpd-prerevert

Obsoletes: None

Requires: OS-3.2.1.292-MU3 + P19

Build Version: 3.2.1.360

Warnings, cautions and notes

NOTE:

- If an HPE ProLiant DL120e Service Processor is installed with SP 4.3.0.GA-32, do not downgrade to SP 4.3.0.GA-24.
 - 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.
-

Affected components

Component	Version
System Manager	3.2.1.452 (P38)
TPD Kernel Patch	3.2.1.452 (P38)

Modifications

This patch includes the following modifications to 3PAR OS 3.2.1 MU3:

- Addresses unexpected array restarts when there are multiple volume exports from source to destination array in Peer Motion configuration.
- Unexpected controller node restarts no longer occur when changing a port from a mode that uses NPIV (persistent ports or peer motion) to a mode that does not.
- Avoids an XCOPY token inconsistency issue during controller node restarts.
- Prevents VV resizing when the system manager is restarted if the VV is not aligned on 256 MB boundary.
- In the System Manager process, the thread pools used by RC are now independent from the global thread pool. This avoids stalled I/O during RC manual resynchs.
- Avoids an unexpected controller node restart caused by an internal recovery message that was not properly cleared after deleting thin-provisioned virtual volumes (TPVV) or thin-duplicated virtual volumes (TDVV).

Verification

The installation of Patch 38 can be verified from an interactive CLI session. Issue the CLI command `showversion -a -b` to verify that Patch 38 is listed.

```
cli% showversion -a -b
Release version 3.2.1.292 (MU3)
Patches: P17, P18, P19, P23, P30, P34, P38

Component Name          Version
CLI Server               3.2.1.292 (MU3)
CLI Client               3.2.1.292
System Manager           3.2.1.452 (P38)
Kernel                   3.2.1.292 (MU3)
TPD Kernel Code          3.2.1.312 (P17)
TPD Kernel Patch         3.2.1.452 (P38)
CIM Server               3.2.1.312 (P17)
Software Updater         3.2.1.384 (P30)
VV Check Tools           3.2.1.320 (P18)
VASA Provider            2.1.8 (P18)
```