

# HP 3PAR OS 3.1.2 MU2 Patch 38 Release Notes

This release notes document is for Patch 38 and intended for HP 3PAR Operating System Software 3.1.2.422 (MU2) with Patch 11(P11).

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# 1 Overview of HP 3PAR OS

This release notes document describes the modifications and known issues for Patch 38. The application of this patch is intended for HP 3PAR OS 3.1.2.422 (MU2) with Patch 11(P11). Only an authorized HP Service Provider should perform this maintenance procedure.

## Supported platforms

The HP 3PAR Configuration Matrix for HP 3PAR OS 3.1.2 contains information about supported hardware and software platforms. For additional information, go to the Single Point of Connectivity Knowledge for HP Storage Products (SPOCK) website: <http://www.hp.com/storage/spock>.

## Verifying the patch installation

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 3.1.2.422 (MU2)
Patches: P11, P38

Component Name          Version
CLI Server              3.1.2.422 (MU2)
CLI Client              3.1.2.278
System Manager         3.1.2.422 (MU2)
Kernel                 3.1.2.422 (MU2)
TPD Kernel Code        3.1.2.422 (MU2)
TPD Kernel Patch       3.1.2.594 (P38)
...

```

**NOTE:** When displaying the `showversion` command output from the Service Processor, the CLI Client version is fixed in the SP code, and might differ from the output displayed on another system.

**NOTE:** Applying this patch to the HP 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 IMC sessions might be interrupted.

## Components

Component	Version
CLI Server	3.1.2.422 (MU2)
CLI Client	3.1.2.278
TPD Kernel Patch	3.1.2.594 (P38)

## Modifications to the HP 3PAR OS

The purpose of this patch is to avoid multi-node errors resulting from lockstep timeouts when the event handler becomes overloaded with events. The rate of event creation is reduced to 1 event per 100 milliseconds. A record of skipped events is maintained in the log.

This patch also resolves an issue where under certain circumstances, a timer in the Fibre Channel driver triggers a port reset which can result in an array shutdown.

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**NOTE:** This Patch obsoletes earlier patches HP 3PAR OS 3.1.2 MU2 P21, HP 3PAR OS 3.1.2 MU2 P23, and HP 3PAR OS 3.1.2 MU2 P36.

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This release addresses the following items:

<b>Issue ID</b>	<b>Description</b>
96827	During persistent port failover, multiple nodes might give an error and reboot due to a large number of SCSI command retry messages which overload the event handling mechanism.
97912	Under certain circumstances, a timer in the Fibre Channel driver triggers a port reset. This port reset can sometimes cause a node error. If timers running on two or more nodes of an array trigger port reset simultaneously causing node errors, this can result in an array shutdown.