



Product Alert 45

Product	StorNext Storage Manager
Summary	In rare cases, StorNext Storage Manager customers may encounter a Linux problem that can cause a duplicate data block. The problem is isolated to instances where a <code>pse_snapshot</code> is collected during a store to tape. No data is lost, but intervention is required to correctly retrieve the entire file and remove the duplicate block.
Date	March 2014

Problem

A defect in the SCSI generic driver in the Linux kernels used in RedHat 5.x, 6.x, SLES 10, and SUSE 11 can cause a duplicate data block to be written during a store to tape if a `pse_snapshot` is taken during the store processing. Reference Red Hat Bug 1073124.

This issue applies to StorNext versions 4.0 through 4.7.0.1, and StorNext 5 version 5.0.0. No data is lost due to this condition, but intervention is required to correctly retrieve the entire file and remove the duplicate data block.

For more information, contact the Quantum Technical Assistance Center and reference Bug 47022.

Symptoms

Symptoms include the following:

- A corrupted copy of the file will be retrieved from the tape.
- A checksum error will be reported on file retrieve, if the feature was enabled at the store time.
- If checksums are enabled and multiple copies are stored, StorNext will automatically retrieve the alternate copy.

Cause

A duplicate data block may be written due to a Linux bug that can be triggered when collecting a `pse_snapshot` during a file store to tape processing.

Solution

The `pse_snapshot` process has been changed in StorNext versions 4.7.1 and StorNext 5 version 5.0.1 (and later releases) to avoid this problem.

To determine if this problem occurred, while running an at risk release, contact Quantum Technical Support and request the script `find_duplicate_record`.

Note: The script will use the database to analyze files written to a tape and identify files with an extra data block.

If any file is found containing a duplicate block and a second copy of that file does not exist, contact Quantum Technical Support for help retrieving the complete file without the duplicate data block.

Workaround

To avoid this issue until an upgrade to StorNext version 4.7.1 or StorNext 5 version 5.0.1 or later, the following workaround is available:

- 1 Edit the file: `/usr/adic/TSM/config/filelist`
- 2 Look for the line: `snap_cmd : 8 : tsm-stacks : 5`
- 3 And comment it out: `# snap_cmd : 8 : tsm-stacks : 5`

Note: If upgrading to a release which does not have this work around, you will have to repeat this procedure.

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Contacting Quantum

More information about StorNext is available on the Quantum Service and Support website at www.quantum.com/ServiceandSupport. The Quantum Service and Support website contains a collection of information, including answers to frequently asked questions (FAQs). You can also access software, firmware, and drivers through this site.

For further assistance, contact the Quantum Technical Assistance Center:

United States	800-284-5101 Option 5 (toll free)
EMEA	00800 7826 8888 (toll free) 49 6131 3241 1164
Online Service and Support	www.quantum.com/OSR
World Wide Web	www.quantum.com/ServiceandSupport

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