

IBM System Storage - DS8870 Disk Storage Microcode Bundle 87.52.28.0 Release Note Information v1.1

Release Date: April 30, 2019

VRMF Level Data Results:

VRMF level From:	87.52.19.0
VRMF Level To:	87.52.28.0
Report for:	All DS8870

Code Bundle Contents

DS8000 Code Bundle	SEA or LMC	DSCLI Client	STAT Tool	Easy Tier Client	Heat Map Transfer Utility	Storage Manager Code Level
87.52.28.0	7.7.52.830	7.7.52.830	7.7.52.830	7.7.52.830	7.7.52.620	5.7.52.1036

Overview of new features and functions supported by this release on DS8870 242x model 961

At a glance:

- Code fixes
- Note: Upgrades to 87.52.28.0 from levels below 87.5x.x.x will require two-step HMC transformation

This new microcode release supports DS8870 systems only.

Select Modifications Included in this Release Note:

This is a list of some modifications contained across one or more LIC (License Internal Code) or microcode release(s). The potential impact is variable. Specific environments may aggravate or degrade the potential impact. Problem(s) fixed and reported in this release note may not be in higher levels of code bundles.

Definition of Problem Severity:

1	High Impact	- Acute: An irrecoverable error with potential loss of data. - Serious: An irrecoverable error with potential loss of access to data.
2	Moderate	- A function not operational and/or performance might be degraded.
3	Service	- A recoverable error (no impact) and service improvements.
4	Improvements	- Improvement changes for better Usability and Serviceability.

HIPER: High Impact problem that is Pervasive: 3 or more occurrences

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Acute: An irrecoverable error with potential loss of data.

HIPER Possible data inconsistency on PPRC secondary

- 1. Problem Description:** Possible data inconsistency on PPRC secondary (or GM FlashCopy target as current instance) while running FlashCopy on PPRC ESE primary (PPRC primary is also FLC target)
- 2. Potential Impact of Problem:** loss of data
- 3. Problem Severity:** HIPER
- 4. Pervasive Problem:** Yes

ID# 341639

Serious: An irrecoverable error with potential loss of access to data.

Repeated 0x4422 MLEs

- 1. Problem Description:** An unusual (but legal) sequence of Format Write/Locate Record Erase commands can trigger repeated warmstarts that may escalate to cluster failover and loss of access.
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID#: 340203

Moderate: A system path is not operational and/or performance may be degraded.

Performance degradation when one MTMM leg is suspended

- 1. Problem Description:** In Multi-Target Metro Mirror configuration, using zHyperWrite, when one of the target relationships is suspended, the MTMM primary shows some increase in disconnect times.
- 2. Potential Impact of Problem:** degraded performance
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID#: 332739

FlashCopy target write inhibit

- 1. Problem Description:** A small timing window exists when writing to a FlashCopy target volume, where a bitmap may become corrupted.
- 2. Potential Impact of Problem:** Failed FlashCopy job
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID#: 333268

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0x7D0E MLE

- 1. Problem Description:** A race condition between threads caused a process control lock to be released twice.
- 2. Potential Impact of Problem:** Warmstart
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** Yes

ID#: 336221

PPRC Suspended

- 1. Problem Description:** PPRC multi-track writes deadlocked with safe data commit scan of cache metadata.
- 2. Potential Impact of Problem:** PPRC Suspend
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID#: 337297

Host Adapter path fail after warmstart

- 1. Problem Description:** Abort during Process Logout phase left behind a stale exchange, preventing link cleanup.
- 2. Potential Impact of Problem:** loss of path
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID#: 338688

CMUN80519E when modifying an existing PPRC pair

- 1. Problem Description:** When modifying an existing PPRC pair to enable Multi-Target or to start/stop Metro Global Mirror-Incremental Resync, internal logic flags are set incorrectly.
- 2. Potential Impact of Problem:** Cannot establish a Multi Target pair or send a Release Space command to the secondary
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID#: 339686

0x0B8A MLE and Host Adapter reboot

- 1. Problem Description:** z System aborted during a zHPF transfer with > 55 records, triggering a Host Adapter DSI and HA reboot
- 2. Potential Impact of Problem:** loss of path
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID#: 339936

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Service: A recoverable error, Service improvements.

0x01B7 MLE

- 1. Problem Description:** Lock contention during Copy Services write intercept to set/reset track Out of Sync bit
 - 2. Potential Impact of Problem:** On Demand Data (ODD) dump
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** Yes
- ID#: 330095

Auto-Offload PE package incomplete

- 1. Problem Description:** Auto-offload process sent the PE package before all compress operations were completed.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID#: 336710

SRC=BE3825A8 FRU list incomplete

- 1. Problem Description:** PCIe link failure SRC=BE3825A8 included the PCIe adapters in the CEC and I/O bay, but did not include the PCIe cable that connects between them
 - 2. Potential Impact of Problem:** Extended service actions
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID#: 336848

Serious alert, but no callhome

- 1. Problem Description:** Callhome of the event was left disabled by a prior failed repair attempt that was aborted by HMC reboot.
 - 2. Potential Impact of Problem:** Callhome failure
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID#: 337554

Expand FRU list for SRC=BE316003

- 1. Problem Description:** Improve FRU call for transient LRC errors on Device Adapter loops
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID#: 337555

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Unable to terminate MTIR pairs

- 1. Problem Description:** Multi-Target Incrementay Resync secondary pairs could not be manually terminated, where no path exists between the two secondary storage systems.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 339236

SRC=BE610034 after Secure Data Overwrite

- 1. Problem Description:** After SDO completes, if HMC is rebooted, SRC is logged for unexpected reboot during SDO.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 339446

HMC callhome, heartbeat, and remote support failure

- 1. Problem Description:** HMC firewall rules specified only the port, without including the destination IP address. If the rule is removed, it affects all destinations.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 339486

REST API fails to connect

- 1. Problem Description:** REST functions intermittently failing with internal SRC=BE7A1012 error
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 339516

Callhome entitlement failure

- 1. Problem Description:** System was attempting to call home using an incorrect machine type/serial number.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 339664

SRC=340029 during update to R7.5 SP10

- 1. Problem Description:** An HMC function failed to run after HMC update, because the LPARs were not yet updated with the companion function.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 340029

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Incorrect Copy Services User access controls

- 1. Problem Description:** Users with "Copy Services User" role are able to view and export log data that they should not be able to access.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 340362

DS GUI 'Events' view empty after CDA

- 1. Problem Description:** After code bundle upgrade, a missing javascript file causes DS GUI to show an empty 'Events' view
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 341226

Improvements: Improvements for better usability

Improve DA LRC checking

- 1. Problem Description:** Change CKD LRC strategy from per-track to per-record.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Improvement
- 4. Pervasive Problem:** No

ID#: 338865

Remove HMC warning popup

- 1. Problem Description:** Remove unnecessary warning message that displays when performing a repair action using an HMC that is not acting as Problem Analysis primary.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Improvement
- 4. Pervasive Problem:** No

ID#: 339498

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