

IBM System Storage - DS8870 Disk Storage 1 **Microcode Bundle 87.10.113.0 Release Note Information v1.1**

Release Date: March 10, 2014

VRMF Level Data Results:

VRMF level From:	87.10.102.0
VRMF Level To:	87.10.113.0
Report for:	All DS8870

Code Bundle Contents

This table includes code component reference information.

DS8870 Code Bundle Level	SEA or LMC Version:	DS CLI Client	Easy Tier Client	STAT Tool	Heat Map Transfer Utility	Storage Manager
87.10.113.0	7.7.10.354	7.7.10.354	7.7.10.354	7.7.10.354	7.7.10.354	5.7.10.1188

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

At a glance:

- Maintenance field release 7.1.7
- z/OS Synergy support

This new microcode release only supports the DS8870.

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 - 0x7178 MLE, SEFLC target volume in FC08 state

1. **Problem Description:** After recovery from 0x7178 microcode logic error a Track-Space-Efficient Flash Copy target volume can be left in FC08 (unable to destage) state
2. **Potential Impact of Problem:** loss of data
3. **Problem Severity:** Hiper
4. **Pervasive Problem:** Yes

ID#: 286857

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

Flashcopy target volume fenced

1. **Problem Description:** Fix a small time window during two destages to the same track, where CS may mark both as "allocation destage".
2. **Potential Impact of Problem:** loss of access to target volume
3. **Problem Severity:** Serious
4. **Pervasive Problem:** No

ID#: 282611

HIPER - Flash Copy relationship stuck revertible

1. **Problem Description:** If an inband Establish Revertible command aborts because of a communication timeout, the command is redriven on another path. But the original command may still be in flight, and the two commands can collide.
2. **Potential Impact of Problem:** GM fatal error, or repeated suspends.
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes

ID#: 285004

HIPER - Improved handling of Lost Data Frame errors

1. **Problem Description:** When a serviceable event is generated for Lost Data Frame errors on a Device Adapter loop, the affected loop will be placed in service mode.
2. **Potential Impact of Problem:** Multiple DDM rejections, possibly causing degraded array(s).
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes

ID#: 289221

Host Adapter MLE x60CA with heavy read workloads

1. **Problem Description:** During periods of heavy read activity, a Host Adapter may run out of Sequence Buffer Memory blocks, resulting in a microcode logic error.
2. **Potential Impact of Problem:** Fenced Host Adapter(s)
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No

ID#: 292581

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

Device Adapter MLE 0x14E

1. **Problem Description:** Adapter mailbox processing fails to get rank lock in time to assure commands are not processed out of order.
 2. **Potential Impact of Problem:** Fenced Device Adapter
 3. **Problem Severity:** Moderate
 4. **Pervasive Problem:** No
- ID#: 288831

Erroneous suspend of PPRC volume pair

1. **Problem Description:** After receiving long busy response when writing to the secondary volume, the primary volume also returned long busy for the write operation, as it should. The host did not re-drive the write operation, and code failed to reset the out-of-sync condition on the affected track(s).
 2. **Potential Impact of Problem:** PPRC suspend
 3. **Problem Severity:** Moderate
 4. **Pervasive Problem:** Yes
- ID#: 292581

PPRC link in High Failure Rate mode

1. **Problem Description:** Initial PPRC I/O operation on an adapter port is rejected, causing link to go into High Failure Rate mode. Subsequent I/O operations are not affected.
 2. **Potential Impact of Problem:** Degraded PPRC performance
 3. **Problem Severity:** Moderate
 4. **Pervasive Problem:** No
- ID#: 293529

Service: A recoverable error, Service improvements.

RAS FRU callout improvement for Lost Data Frame errors

1. **Problem Description:** FCIC cable is at the top of the FRU list, even though it is the least likely to fail. This change re-orders the list to put the FCIC cable at the bottom.
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 289351

Failed login count not synchronized on dual HMCs

1. **Problem Description:** After successful login on one HMC, the failed login counts on the partner HMC may not be reset.
 2. **Potential Impact of Problem:** User account locked
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 289485

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HMC reboot causes MRPD data off-load failure

1. **Problem Description:** After a reboot of the HMC a microcode logic error causes a MRPD data off-load failure. The only way to correct the MRPD data off-load failure is for the SSR to reconfigure the MRPD off-load.
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** Yes
- ID#: 290710

CUIR failed to vary off paths during host bay repair

1. **Problem Description:** During a host bay repair, a microcode logic error caused CUIR to skip vary off of one of the host adapters
 2. **Potential Impact of Problem:** Had to manually vary off the paths
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 292745

Improvements: Improvement for better usability

Eliminate an SSL vulnerability

1. **Problem Description:** Closes an HMC SSL vulnerability for UDP port 1701
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Improvement
 4. **Pervasive Problem:** No
- ID#: 285107

PCR 7500 - z/OS Synergy

1. **Problem Description:** Adds support for SPID Set/Reset Fence commands
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Improvement
 4. **Pervasive Problem:** No
- ID#: 289475

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