IBM System Storage - DS8870 Disk Storage
Microcode Bundle 87.51.23.4 Release Note Information v1

Release Date: February 12 2016

VRMF Level Data Results:

VRMF level From:	87.50.23.0
VRMF Level To:	87.51.23.4
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
87.51.23.4	7.7.51.69	7.7.51.66	7.7.51.66	7.7.51.66	7.7.51.66	5.7.51.1026

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

At a glance:

• Important bug fixes

This is a 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

Acute: An irrecoverable error with potential loss of data.

HIPER Both V-RAID adapters fenced
1. **Problem Description:** A flash card can fail in such a way as to expose microcode logic errors, that lead to fencing both V-RAID adapters.
2. **Potential Impact of Problem:** loss of data and/or loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
ID#: 312723, 313417

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

HIPER Repeated V-RAID adapter resets
1. **Problem Description:** A flash card failed in a way that led to repeated V-RAID adapter resets. Fix will detect the condition, and immediately bypass the failing flash card.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** No
ID#: 312369

HIPER Track Format Descriptor mismatch
1. **Problem Description:** Improper setting of flags leads to corruption of the modified sector bitmap.
2. **Potential Impact of Problem:** Global Mirror suspend
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
ID#: 312882

HIPER SVC mdisk offline
1. **Problem Description:** SAN Volume Controller managed disk went offline when a DS8870 microcode logic error caused fixed block task timeouts.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
ID#: 313106

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

0x7D13 MLE
1. **Problem Description:** A function that checks for out-of-sync track bitmap corruption, caused an out-of-order locking exception
2. **Potential Impact of Problem:** Warmstart
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes
ID#: 302086

Long global mirror RPO times

1. **Problem Description:** Changes made for Multi-Target PPRC support exposed a microcode logic error that results in delays forming consistency groups. This can be seen most often when a large number of volumes have low activity.
2. **Potential Impact of Problem:** Increased RPO
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes

ID#: 309360

PPRC extended query reports volume pending status

1. **Problem Description:** When performing flashcopy to a Global Mirror volume pair, the volume status always shows as 'pending'. The underlying state was intended to only be used for Metro Mirror pairs.
2. **Potential Impact of Problem:** May cause DR test to fail
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 311653

Service: A recoverable error, Service improvements.

None.

Improvements: Improvement for better usability

None.

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