

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.51.103.0 Release Note Information v1

Release Date: October 31, 2017

VRMF Level Data Results:

VRMF level From:	87.51.95.0
VRMF Level To:	87.51.103.0
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
87.51.103.0	7.7.51.2700	7.8.24.11	7.7.51.2700	7.7.51.2700	7.7.51.2700	5.7.51.1123

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

At a glance:

- Code fixes

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.

None.

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

HIPER Failover and cluster reboot during PCIe error recovery

1. **Problem Description:** During PCIe error recovery, Device Adapter deconfiguration may hang while attempting to unload the device driver
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes

ID#: 300160

HPFE Gen1 logical disk failure

1. **Problem Description:** During command timeout recovery, the SAS expanders may cause both V-RAID adapters to disconnect from the flash drives at the same time. This then causes the V-RAID adapters to fail multiple flash drives.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No

ID#: 326271

Cache LRU scan deadlock

1. **Problem Description:** A microcode logic error caused the LRU list pointer to become stuck at the top of the list, rather than scanning up from the bottom.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No

ID#: 327821

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

0x01B7 MLE

1. **Problem Description:** PPRC Write Intercept encountered a locking exception.
2. **Potential Impact of Problem:** ODD dump
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes

ID#: 312361

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PPRC Lock Contention and 0x01B7 MLE

1. **Problem Description:** Track Access Write Intercept may encounter lock contention on systems with 96 CPUs
2. **Potential Impact of Problem:** ODD dump
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 312654

0xDDA4 MLE during Easy Tier migration

1. **Problem Description:** On large systems, Easy Tier may time out while searching for free segments
2. **Potential Impact of Problem:** Warmstart
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 316701

Repeated 0x01B7-506A MLE

1. **Problem Description:** Copy services lock contention timeout on a lock that did not need to be active.
2. **Potential Impact of Problem:** Warmstart
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes

ID#: 319267

0x01B7 MLE

1. **Problem Description:** Lock contention in Write Intercept path
2. **Potential Impact of Problem:** ODD dump
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 320826

0x01B7 MLE scanloop timeout

1. **Problem Description:** CPU lock contention may cause task control block starvation in copy services environments.
2. **Potential Impact of Problem:** ODD dump
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 324202

0x166A MLE during DDM firmware update

1. **Problem Description:** During DDM firmware update, DDM exceeded the pre-emptive reconstruct timeout value
2. **Potential Impact of Problem:** ODD dump
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 325105

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0x01B7 MLE

1. **Problem Description:** Global Mirror collision function incorrectly setting Extended Distance Consistency session locks.
 2. **Potential Impact of Problem:** degraded performance, ODD dumps
 3. **Problem Severity:** Moderate
 4. **Pervasive Problem:** Yes
- ID#: 325696

Global Mirror suspend while removing a volume from the session

1. **Problem Description:** Volume removal exposed a timing window where a consistency group was beginning to form, but was not yet aware that the volume had been removed from the session.
 2. **Potential Impact of Problem:** Global Mirror suspend
 3. **Problem Severity:** Moderate
 4. **Pervasive Problem:** No
- ID#: 329059

LRC error incorrectly fenced a Host Adapter

1. **Problem Description:** Sector LRC was good across the 524-byte IBM i sector, but was not good across the 512-byte data portion. When the sector was subsequently read, the data area LRC was not checked until it got to the host adapter.
 2. **Potential Impact of Problem:** loss of path
 3. **Problem Severity:** Moderate
 4. **Pervasive Problem:** No
- ID#: 330688

Service: A recoverable error, Service improvements.

DSCLI lsarraysite, lsxtpool, and lsioport fail with CMUN00015E

1. **Problem Description:** Command hang when failing internal query of fibre channel ports caused an out-of-memory condition.
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 323754

Improvements: Improvements for better usability

None.

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