

# **IBM System Storage - DS8870 Disk Storage**

## **Microcode Bundle 87.21.16.0 Release Note Information v1**

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**Release Date: March 10, 2014**

### **VRMF Level Data Results:**

<b>VRMF level From:</b>	<b>87.21.8.0</b>
<b>VRMF Level To:</b>	<b>87.21.16.0</b>
<b>Report for:</b>	<b>All DS8870</b>

## **Code Bundle Contents**

This table includes code component reference information.

<b>DS8870 Code Bundle Level</b>	<b>SEA or LMC Version:</b>	<b>DS CLI Client</b>	<b>Easy Tier Client</b>	<b>STAT Tool</b>	<b>Heat Map Transfer Utility</b>	<b>Storage Manager</b>
<b>87.21.16.0</b>	<b>7.7.21.38</b>	<b>7.7.21.38</b>	<b>7.7.21.38</b>	<b>7.7.21.38</b>	<b>7.7.21.38</b>	<b>5.7.21.1012</b>

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

### **At a glance:**

- 'Lights-on' fastload RPQ
- 4TB Nearline performance profile update
- Easy Tier Application support enhancements

**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.**

#### **Device Adapter loop hang**

1. **Problem Description:** During Device Adapter loop recovery, a command is sent that is no longer supported by firmware. While normally harmless, in this scenario, the command was not properly handled, causing the loop to hang, which interfered with the recovery process.
2. **Potential Impact of Problem:** loss of data
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No

ID#: 283044

### **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

#### **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

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

#### **Global Mirror stuck in first pass due to a microcode logic error**

1. **Problem Description:** Global Copy pairs are stuck in first pass and do not form consistency groups.
2. **Potential Impact of Problem:** Global Mirror not forming consistency groups
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes

ID#: 283328

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### **Read I/O on FlashCopy source volumes not being counted by ET**

1. **Problem Description:** On Flashcopy CST operation, Easy Tier records the read I/O statistics on FlashCopy source volume against the target volume.
2. **Potential Impact of Problem:** degraded performance
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 291892

### **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#: 291892

### **Easy Tier can over-utilize SSD ranks with high sequential writes**

1. **Problem Description:** SSD ranks are over utilized by Easy Tier when a workload has a very high sequential write ratio. This change addresses problem of over utilizing SSD ranks for workloads with high percentage of sequential writes. Only CKD volumes are affected by this problem.
2. **Potential Impact of Problem:** degraded performance
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 293420

### **Service: A recoverable error, Service improvements.**

### **SRC BE30CEB7 Loop Error is reported when DDMs are idle**

1. **Problem Description:** SRC BE30CEB7 indicating an error on loops from DA adapters to storage enclosures. Due to a microcode error idle DDMs can be reported as causing loop errors. This problem is most common on machines without logical configuration.
2. **Potential Impact of Problem:** Invalid error reported
3. **Problem Severity:** Service
4. **Pervasive Problem:** Yes

ID#: 292102

### **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

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### **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

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