

# **IBM System Storage DS8870 Disk Storage**

## **87.5.x.x Release Notes Cumulative Summary v5.1**

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**Date:** March 5, 2015

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

<b>VRMF level From:</b>	<b>87.0.189.0</b>
<b>VRMF Level To:</b>	<b>87.5.21.0</b>
<b>Report for:</b>	<b>DS8870</b>

## **Code Bundle Contents**

<b>DS8000 Code Bundle</b>	<b>SEA or LMC Version: Display with dscli ver command</b>	<b>CLI Client Level</b>	<b>Storage Manager Code Level</b>
<b>87.5.22.0</b>	<b>7.7.5.61</b>	<b>7.7.5.61</b>	<b>5.7.5.1024</b>
<b>87.5.21.0</b>	<b>7.7.5.61</b>	<b>7.7.5.61</b>	<b>5.7.5.1024</b>
<b>87.5.17.0</b>	<b>7.7.5.46</b>	<b>7.7.5.46</b>	<b>5.7.5.1010</b>
<b>87.5.14.0</b>	<b>7.7.5.37</b>	<b>7.7.5.37</b>	<b>5.7.5.1010</b>
<b>87.5.11.2</b>	<b>7.7.5.35</b>	<b>7.7.5.23</b>	<b>5.7.5.1010</b>
<b>87.5.11.0</b>	<b>7.7.5.23</b>	<b>7.7.5.23</b>	<b>5.7.5.1010</b>
<b>87.0.189.0</b>	<b>7.7.0.598</b>	<b>7.7.0.595</b>	<b>5.7.0.1304</b>

This is a summary of the fixes in the R7 microcode releases.

### **Select Modifications Included in this Release Note:**

This is a list of some modifications contained across one or more LIC levels (License Internal Code) or microcode release(s). The potential impact is variable. Specific environments may aggravate or degrade the potential impact.

Problem(s) 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.**

#### **PAV base and alias devices can not exist in same 32 address range**

1. **Problem Description:** Detailed problem description and mitigation  
<http://www.ibm.com/support/docview.wss?uid=ssg1S1004395>
2. **Potential Impact of Problem:** loss of data
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No
5. **Release Bundle:** 87.5.21.0

ID#: 285209

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

#### **Degraded RAID 10 performance with certain DDM error conditions**

1. **Problem Description:** Write response time may not be guaranteed with certain DDM hardware error conditions, this could affect I/O performance or cause temporary loss of access.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** Yes
5. **Release Bundle:** 87.5.17.0

ID#: 282628

#### **VMWare® host using the xcopy command can lose access**

1. **Problem Description:** When a VMWare® host uses the xcopy command a microcode logic error can result in all hosts losing access.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
5. **Release Bundle:** 87.5.11.2

ID#: 281299

#### **Dynamic volume expansion does not notify host system**

1. **Problem Description:** When dynamically increasing the volume size the DS8000 does not notify the host system of the size change. Depending on usage of the volume, loss of access could occur.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
5. **Release Bundle:** 87.5.11.2

ID#: 280607

#### **Microcode errors if more than 64K FlashCopy pairs are established**

1. **Problem Description:** If more than 64k extent level FlashCopy pairs are established a microcode logic error will cause a dual cluster reboot.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
5. **Release Bundle:** 87.5.11.0

ID#: 270745

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

### **High response times when cloning VMWare® virtual machines**

1. **Problem Description:** Very high I/O response times receiving multiple VMWare® xcopy commands in parallel, which happens when cloning multiple virtual machines at one time.
  2. **Potential Impact of Problem:** I/O performance degradation
  3. **Problem Severity:** Moderate
  4. **Pervasive Problem:** No
  5. **Release Bundle:** 87.5.11.0
- ID#: 282714

### **VMWare® VAAI extended copy command accepted for all volumes**

1. **Problem Description:** The XCOPY command is accepted for all volume types, including those that do not support XCOPY.
  2. **Potential Impact of Problem:** Repeated retries to XCOPY a volume
  3. **Problem Severity:** Moderate
  4. **Pervasive Problem:** Yes
  5. **Release Bundle:** 87.5.11.0
- ID#: 276674

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

### **DC-UPS firmware change to correct battery life calculation**

1. **Problem Description:** Initial battery life was originally mis-configured for 7 years, rather than 5.5 years.
  2. **Potential Impact of Problem:** No early warning that batteries are approaching end-of-life
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** No
  5. **Release Bundle:** 87.5.501.501
- ID#: 296441

### **Last charge date greater than 8 months incorrectly reported**

1. **Problem Description:** DC-UPS incorrectly reports the last charge date of the battery modules is greater than 8 months due to a microcode logic error.
  2. **Potential Impact of Problem:** none
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** Yes
  5. **Release Bundle:** 87.5.22.0
- ID#: 285572

### **Global Mirror microcode logic error causes warmstart**

1. **Problem Description:** During task processing for Global Mirroring a microcode logic error during control block update a warmstart can occur.
  2. **Potential Impact of Problem:** warmstart
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** Yes
  5. **Release Bundle:** 87.5.21.0
- ID#: 281659

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### **Microcode logic error 0x22E0 during destage**

1. **Problem Description:** A microcode logic error 0x22E0 is encountered if a lock is not taken before the destage operations
  2. **Potential Impact of Problem:** Warmstart
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** Yes
  5. **Release Bundle:** 87.5.17.0
- ID#: 282674

### **PPRC microcode logic error 0x7D10**

1. **Problem Description:** When PPRC send the last track in the side file the lock is cleared. A microcode logic error can cause result in the lock being cleared a second time, resulting in the 0x7D10 microcode logic error
  2. **Potential Impact of Problem:** warmstart
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** Yes
  5. **Release Bundle:** 87.5.17.0
- ID#: 279977

### **DA adapters fail for compact flash error on raid 5 and raid 10**

1. **Problem Description:** The DA adapter can fail for a compact flash error. Raid 5 and raid 10 do not use the compact flash. This error will be suppressed unless raid 6 arrays are configured.
  2. **Potential Impact of Problem:** Adapter replacement not required
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** Yes
  5. **Release Bundle:** 87.5.11.2
- ID#: 281289

### **PE Package does not contain the object repository**

1. **Problem Description:** Due to a microcode change the object repository is not included in a PE Package
  2. **Potential Impact of Problem:** delayed problem analysis
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** No
  5. **Release Bundle:** 87.5.11.0
- ID#: 277146

### **Microcode error if more than 12 FlashCopy relationships on a volume**

1. **Problem Description:** A microcode error will occur when there are more than 12 FlashCopy relationships are issued to a volume.
  2. **Potential Impact of Problem:** none
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** Yes
  5. **Release Bundle:** 87.5.11.0
- ID#: 276138

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### **Microcode error when VMWare® host running VAAI with FlashCopy**

1. **Problem Description:** When a VMWare host running VAAI has more than 32,768 Flash Copy Relationships a microcode detected error will cause a warmstart.
  2. **Potential Impact of Problem:** none
  3. **Problem Severity:** Service
  4. **Pervasive Problem:** No
  5. **Release Bundle:** 87.5.11.0
- ID#: 276562

### **Improvements: Improvement for better usability**

None

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