

# IBM TotalStorage® DS8700 Disk Storage Microcode Bundle 76.10.122.0 Release Note Information

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Date: May 31, 2011

## VRMF Level Data Results:

VRMF level From:	N/A
VRMF Level To:	76.10.122.0
Report for:	All DS8700

## Code Bundle Contents

This table includes code component reference information.

DS800 Code Bundle Level	SEA or LMC Version: Used with dscli <i>ver</i> command.	CLI Client Level	Storage Manager Code Level
76.10.122.0	6.6.10.171	6.6.10.171	5.6.1.1468

## Overview of new features and functions supported by Microcode Release 76.10.122.0 for DS8700 , 242x model 941.

### At a glance:

- IBM System Storage Easy Tier II
- DS8000 I/O Priority Manager
- 8 Gb 4 port host adapters
- 16 TB LUN support (Host OS limitations or requirements will apply)
- Copy Services scope management
- Compliant with ITSC password requirements

**This is a new microcode release only supports the DS8700.**

### 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.

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### Definition of Problem Severity:

1. Acute - An irrecoverable error with potential loss of data.
2. Serious - An irrecoverable error with potential loss of access to data.
3. Moderate - A function not operational and/or performance might be degraded.
4. Service - A recoverable error (no impact) and service improvements.
5. Improvements - Improvement changes for better Usability and Serviceability.

### **Acute: An irrecoverable error with potential loss of data.**

#### **FSP reset time-out failure results in pinned data**

1. **Problem Description:** FSP reset time-out error handling in single cluster mode could result in pinned nonretryable data due.
2. **Potential Impact of Problem:** Loss of access, data loss possible
3. **Frequency of Problem:** Low

ID#: 256146

#### **No call home for serviceable events identifying MAP3200**

1. **Problem Description:** There is no call home for serviceable events that MAP3200 needs to used, there is customer notification only. This event needs to call home as it indicates DDMs with media errors.
2. **Potential Impact of Problem:** Data loss
3. **Frequency of Problem:** Low

ID#: 253804

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

#### **I/O Fabric error causes DA cache read command to hang**

1. **Problem Description:** An I/O fabric error causes a DA cache read command to hang due to an internal microcode error.
2. **Potential Impact of Problem:** Loss of access
3. **Frequency of Problem:** Low

ID#: 256941

#### **LUN marked long busy by PPRC during suspend**

1. **Problem Description:** A LUN can be marked long busy by PPRC during suspend PSF due to a microcode error.
2. **Potential Impact of Problem:** Loss of access to LUN
3. **Frequency of Problem:** Low

ID#: 246566

#### **Performance improvement for IMS WADS datasets**

1. **Problem Description:** A change to the handling of WADS datasets will allow cache to decrease the probability of cache misses on these specific datasets
2. **Potential Impact of Problem:** Improved performance for IMS WADS datasets
3. **Frequency of Problem:** High for IMS WADS

ID#: 249265

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### **Channel Command Word WTD with early end causes loss of access**

- 1. Problem Description:** When CCW chain contains the WTD command with an 'early end' a microcode error can result in a Data Storage Interrupt. This problem requires the length of data for the WTD command be more than one record and less than two records.
- 2. Potential Impact of Problem:** Loss of access
- 3. Frequency of Problem:** Low overall, high if early end is used frequently on WTD commands

ID#: 254445

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

#### **Repeated warmstarts when SEFLC repository is nearly full**

- 1. Problem Description:** When the repository is nearly full a microcode error can occur when working with the last slice of the repository.
- 2. Potential Impact of Problem:** Warmstarts, FlashCopy suspend
- 3. Frequency of Problem:** Low

ID#: 245177

#### **Global Copy initial copy performance is slow**

- 1. Problem Description:** Global Copy initial copy performance is slow when the target mapping is not 1:1 due to a microcode error.
- 2. Potential Impact of Problem:** Increased copy times
- 3. Frequency of Problem:** Low

ID#: 245034

#### **PPRC secondary not able to send asynchronous messages**

- 1. Problem Description:** When PPRC initiator logs out and back in a PPRC secondary is unable to send asynchronous messages to the primary.
- 2. Potential Impact of Problem:** PPRC suspend or performance problems
- 3. Frequency of Problem:** Low

ID#: 251371

#### **Cluster failover on GM master results in degraded I/O performance**

- 1. Problem Description:** Cluster failover on GM master may result in a large number of out of sync tracks. After failover consistency groups with many out of sync tracks can result in degraded I/O performance
- 2. Potential Impact of Problem:** Performance
- 3. Frequency of Problem:** Low

ID#: 227436

#### **Host performance issues during Global Mirror startup**

- 1. Problem Description:** Global Mirror forces a drain when forming the first consistency group. This can cause host performance problems if the Global Mirror is started during heavy host work loads
- 2. Potential Impact of Problem:** Host performance impact
- 3. Frequency of Problem:** High in long distance environments

ID#: 242323

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### **Global Mirror extended distance session is hung**

- 1. Problem Description:** Global Mirror can be hung and Consistency Groups are older than expected. This is due to a microcode error on the subordinate control unit.
  - 2. Potential Impact of Problem:** GM hang, old CGs
  - 3. Frequency of Problem:** Low
- ID#: 242476

### **Global Mirror drain time-out errors cause failures forming CGs**

- 1. Problem Description:** After a drain failure the number of OOS tracks is not calculated correctly the first time due to a microcode error. The second and subsequent calculations are correct.
  - 2. Potential Impact of Problem:** Failures forming consistency groups, host performance could be impacted
  - 3. Frequency of Problem:** Always, operational impact rare, environment dependent
- ID#: 249937

### **XRC suspend caused by microcode detected error**

- 1. Problem Description:** XRC suspend is caused by a microcode error processing side file entries.
  - 2. Potential Impact of Problem:** XRC suspend, failover possible
  - 3. Frequency of Problem:** Low
- ID#: 246531

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

### **Power ePLD MES failures on 4th and 5th rack**

- 1. Problem Description:** Installing the ePLD feature on 4th and 5th rack can fail from a timeout due to a microcode error.
  - 2. Potential Impact of Problem:** Failed installation, extended service
  - 3. Frequency of Problem:** High for ePLD on 4th and 5th rack
- ID#: 253127

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

### **Call home and customer notification of warmstart**

- 1. Problem Description:** Call home and email notification to the user when a warmstart occurs can be enabled by IBM support.
  - 2. Potential Impact of Problem:** N/A
  - 3. Problem Severity:** Improvement
- ID#: 254872

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