

# IBM TotalStorage® DS8700 Disk Storage 1

## Microcode Bundle 76.20.90.0 v2 Release Note Information

Release Date: March 30, 2012

### VRMF Level Data Results:

VRMF level From:	76.20.87.0
VRMF Level To:	76.20.90.0
Report for:	All DS8800

### Code Bundle Contents

DS800 Code Bundle Level	SEA or LMC Version: Used with dscli <i>ver</i> command.	CLI Client Level	Storage Manager Code Level
76.20.90.0	6.6.20.230	5.6.20.230	5.6.20.1127

### Overview of new features and functions supported by Microcode Release 76.20.90.0 for DS8700 , 242x model 941.

#### At a glance:

none

**This is a new microcode release only supports the DS8800.**

#### 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 HIPER - 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.

**Pervasive: Problems with 3 or more occurrences**

# IBM TotalStorage® DS8700 Disk Storage

## Microcode Bundle 76.20.90.0 v2 Release Note Information

2

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

#### **RAID10 array member with a mis-compare error is read for recovery**

- 1. Problem Description:** A RAID10 array member has a mis-compare error and during recovery the same DDM is read instead of the mirrored partner drive. This result in data loss for the affected tracks.
- 2. Potential Impact of Problem:** loss of data
- 3. Problem Severity:** HIPER
- 4. Pervasive Problem:** Yes

ID#: 261209

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

#### **Device Adapter port is disabled due to a microcode logic error**

- 1. Problem Description:** Port on a DA is disabled after a recovered error on FC-AL loop fails to clear the interrupt due to a microcode logic error.
- 2. Potential Impact of Problem:** Unnecessary DA replacement, loss of access possible
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID#: 263428

#### **Primary Power Supply in an internal fence state not being cleared**

- 1. Problem Description:** When a Primary Power Supply is set to internal fence pending state this state is not cleared due to a microcode logic error. If the partner Primary Power Supply has a failure while internal fence pending state is set the machine go through emergency shutdown.
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** HIPER
- 4. Pervasive Problem:** Yes

ID#: 265581

#### **Alias volumes are inaccessible after host adapter error recovery**

- 1. Problem Description:** If we receive a SPID DISBAND command when all of the volumes in the LSS are not in a good state then a microcode logic error could cause alias volumes to become inaccessible. If host software error recovery only retries access to alias volumes then a permanent I/O error will result.
- 2. Potential Impact of Problem:** loss of access, unplanned hyperswap
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID#: 265713

# IBM TotalStorage® DS8700 Disk Storage

## Microcode Bundle 76.20.90.0 v2 Release Note Information

3

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

### **Slow FlashCopy performance with background copy**

- 1. Problem Description:** When the configuration which use extent pool striping has all low numbered ranks on one DA Pair and all high numbered ranks on another DA Pair there can be slow performance for FlashCopy back ground copy.
- 2. Potential Impact of Problem:** Degraded FlashCopy performance
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** Yes

ID#: 238791

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

### **Smart rebuild failure when source drive can not be read**

- 1. Problem Description:** If the source drive can not be read during smart rebuild the source drive is not rejected, causing smart rebuild to abort.
- 2. Potential Impact of Problem:** extended maintenance
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 267042

### **FICON commands with chained data can cause IFCC**

- 1. Problem Description:** If commands with chained data are received it is possible a microcode error will cause the command to cause an interface control check.
- 2. Potential Impact of Problem:** IFCC
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 265644

### **Improved fault isolation for SRC BE304442 FC-AL loop error**

- 1. Problem Description:** A single DDM can cause BE304442 multiple DDMs single port active error to be logged. If a single DDM is identified as single port active that DDM will be identified as the failing part.
- 2. Potential Impact of Problem:** extended or repeat service
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** Yes

ID#: 255215

### **Repeated recovered faults on internal I/O fabric does not call home**

- 1. Problem Description:** Repeated unisolated fabric faults on an I/O bay are recovered by warmstart but no serviceable event is opened. This change will call home if previous fabric faults have occurred on the same I/O bay.
- 2. Potential Impact of Problem:** additional recovered fabric faults
- 3. Problem Severity:** Service
- 4. Pervasive Problem:** No

ID#: 259669

# **IBM TotalStorage® DS8700 Disk Storage**

## **Microcode Bundle 76.20.90.0 v2 Release Note Information**

4

### **MIH errors during FlashCopy withdraw on extended address volumes**

- 1. Problem Description:** FlashCopy withdraw can take longer than 30 sec. for extended address volumes because of the time required for meta data update.
  - 2. Potential Impact of Problem:** MIH errors during FlashCopy withdraw
  - 3. Problem Severity:** Service
  - 4. Pervasive Problem:** No
- ID#: 263377

### **DSCLI Isavailpprcpath command returns CMUC00234I error**

- 1. Problem Description:** Command reject prevents all valid PPRC paths from being displayed by the Isavailpprcpath command. This problem is due to a microcode error.
  - 2. Potential Impact of Problem:** Invalid PPRC path information
  - 3. Problem Severity:** Service
  - 4. Pervasive Problem:** No
- ID#: 265457

### **DSGUI menus not accessible with Mozilla Firefox® 3.5**

- 1. Problem Description:** DSGUI main page will load but when a menu is selected it will not complete loading.
  - 2. Potential Impact of Problem:** No DSGUI access from browser
  - 3. Problem Severity:** Service
  - 4. Pervasive Problem:** No
- ID#: 264541

**Improvements: Improvement for better usability**  
**None**

# **IBM TotalStorage® DS8700 Disk Storage**

## **Microcode Bundle 76.20.90.0 v2 Release Note Information**

5

### **Trademarks**

The following terms are trademarks of the International Business Machines Corporation in the United States, other countries, or both.

- > AIX
- > Enterprise Storage Server
- > ESCON
- > FICON
- > i5/OS
- > iSeries
- > IBM
- > pSeries
- > S/390
- > System Storage
- > TotalStorage
- > z/OS
- > zSeries

IBM, the IBM logo, and [ibm.com](http://www.ibm.com) are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at Copyright and trademark information at <http://www.ibm.com/legal/us/en/copytrade.shtml>.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation in the United States, other countries, or both.

© Copyright IBM Corp. 2004, 2011

### **Notices**

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.

# **IBM TotalStorage® DS8700 Disk Storage**

## **Microcode Bundle 76.20.90.0 v2 Release Note Information**

6

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATIONS "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.