Release Date: July 13, 2012

VRMF Level Data Results:

VRMF level From:	N/A
VRMF Level To:	76.31.17.0
Report for:	All DS8700

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
76.31.17.0	6.6.31.25	6.6.31.18	5.6.31.1043

Overview of new features and functions supported by Microcode Release 76.31.17.0 for DS8700, 242x model 941.

At a glance:

• None (see 76.30.43.0 Release Notes for new functions in Release 6.3)

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.

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.

- A recoverable error (no impact) and service improvements. Service

Improvements - Improvement changes for better Usability and Serviceability.

Pervasive: Problems with 3 or more occurrences

Acute: An irrecoverable error with potential loss of data. None

Serious: An irrecoverable error with potential loss of access to data. Cache and NVS out of sync condition error handling causes loss of access

1. Problem Description: When cache and NVS have an out of sync condition the error recovery can lead to multiple microcode detected errors. This will result in multiple warmstarts and can lead to loss of access

2. Potential Impact of Problem: loss of access

3. Problem Severity: HIPER 4. Pervasive Problem: Yes

ID#: 266011

Loss of input AC can result in incorrect Primary Power Supply status

1. Problem Description: Loss of input AC power can cause the PPS to be fenced internally. Loss of input AC or failure of the other PPS can result in an emergency power off and fire hose dump.

2. Potential Impact of Problem: loss of access

3. Problem Severity: HIPER 4. Pervasive Problem: Yes

ID#: 271459

Unit abort when zOS writing to a FlashCopy target with link errors

1. **Problem Description:** When many link errors are causing large number of abort errors and zOS volumes are also FlashCopy target volumes a dual cluster reboot will occur due a microcode logic error.

2. Potential Impact of Problem: loss of access

3. Problem Severity: High Impact

4. Pervasive Problem: No

ID#: 270451

Loss of access possible for VMware® hosts using VAAI

1. Problem Description: http://www-01.ibm.com/support/docview.wss? uid=ssg1S1004112&myns=s028&mynp=OCSTXN8P&mynp=OCSTUVMB&mynp=OCHW2C2& mvnp=OCHW2B2&mvnc=E

2. Potential Impact of Problem: loss of access

3. Problem Severity: High Impact

4. Pervasive Problem: Yes

ID#: 266162

IBM TotalStorage® DS8700 Disk Storage

Microcode Bundle 76.31.17.0 v2 Release Note Information

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

Volume expansion only notifies hosts when the volume is in a group

1. Problem Description: When a volume is expanded the hosts are notified of the new size if the volume is part of a group. If a secondary volume is not part of a volume group TPC-r will not be able to establish a PPRC relationship.

2. Potential Impact of Problem: Can't establish PPRC pair

3. Problem Severity: Moderate

4. Pervasive Problem: No

ID#: 268944

PPRC suspend due to track format mismatch

1. Problem Description: PPRC pair suspends when a track format data mismatch is detected due to a microcode logic error.

2. Potential Impact of Problem: PPRC suspend

Problem Severity: Moderate
Pervasive Problem: No

ID#: 269263

Service: A recoverable error, Service improvements.

Secure Data Overwrite does not generate BE610030 when complete

1. Problem Description: Secure Data Overwrite did not generate a serviceable event BE610030 when SDO completed successfully if the HMC is rebooted during the SDO process.

2. Potential Impact of Problem: No notification that SDO completed

Problem Severity: Service
Pervasive Problem: No

ID#: 271689

Loss of communication between HMC and TKLM does not create event

1. Problem Description: When the HMC can not communicate with a TKLM server there is no serviceable event BE14EAF1 or BE14EAF2 created.

2. Potential Impact of Problem: No customer notification generated

Problem Severity: Service
Pervasive Problem: Yes

ID#: 270984

Volume migration takes an excessive amount of time

1. Problem Description: Volume migration can take an excessive amount of time because the free segments are not being properly managed when the source rank has too little free space due to a microcode logic error.

2. Potential Impact of Problem: slow volume migration

Problem Severity: Service
Pervasive Problem: No

ID#: 269541

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

Problem Severity: Service
Pervasive Problem: No

ID#: 263377

DSCLI returns unknown error

1. Problem Description: FlashCopy is not allowed between T10 DIF LUN and standard LUN. Reason Code Qualifier 03 added to Format 0 Message F Reason Code 92. ESSNI does not handle this new message which causes an unknown error.

2. Potential Impact of Problem: none

Problem Severity: Service
Pervasive Problem: No

ID#: 269924

Improvements: Improvement for better usability

Allow XRC and Global Mirror to use the same volume

1. **Problem Description:** Previously XRC and Global Mirror could not use the same volume. This change supports using XRC and GM on the same volume

Potential Impact of Problem: none
Problem Severity: Improvement

4. Pervasive Problem: N/A

ID#: 271663

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