Date: December 3, 2012

VRMF Level Data Results:

VRMF level From:	87.0.189.0
VRMF Level To:	87.5.11.0
Report for:	All DS8870

Code Bundle Contents

	SEA or LMC Version: Used with dscli <i>ver</i> command.	CLI Client Level	Storage Manager Code Level
87.5.11.0	7.7.5.23	7.7.5.23	5.7.5.1010

Overview of functions supported by 242x model 961.

Features at a glance:

- MES support
- USGv6 support
- T530 Laptop HMC support

General:

- Improvements to VAAI support
- Improvements to FlashCopy

This is a 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

Acute: An irrecoverable error with potential loss of data.

None

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

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 errors will cause a dual cluster reboot.
- 2. Potential Impact of Problem: loss of access
- 3. Problem Severity: HIPER, High Impact, Moderate, Service, Improvement
- 4. Pervasive Problem: Yes

ID#: 270745

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

VMWare® VAAI extended copy command accepted for all volumes

- **1. Problem Description:** The XCOPY command is accepted for all volume types, including those that to not support XCOPY.
- 2. Potential Impact of Problem: Repeated retires to XCOPY a volume
- 3. Problem Severity: Moderate
- 4. Pervasive Problem: Yes

ID#: 276674

Service: A recoverable error, Service improvements.

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

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
- Problem Severity: Service
 Pervasive Problem: Yes

ID#: 276138

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

Problem Severity: Service
 Pervasive Problem: No

ID#: 276562

Improvements: Improvement for better usability

None

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North Castle Drive
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