

IBM System Storage - DS8880 Disk Storage

Microcode Bundle 88.51.49.0 Release Note Information

Release Date: December 7, 2018

VRMF Level Data Results:

VRMF level From:	88.50.184.0
VRMF Level To:	88.51.49.0
Report for:	All DS8880

Code Bundle Contents

DS8880 Code Bundle Level	SEA or LMC Version:	DSCLI Client	Heat Map Transfer Utility	Storage Manager	Copy Services Manager
88.51.49.0	7.8.51.148	7.8.51.148	7.8.51.148	5.8.51.1055	6.2.3

Overview of new features and functions supported by this release

At a glance:

- zHyperLink Write support
- 15.36TB High Capacity Flash Drive
- High Capacity Flash intermix
- HPFE Gen2 performance improvements
- DSGUI Fiber Channel port in use indicator
- DS8882F I/O bay and host adapter upgrade
- Spectrum Control Storage Insights – Phase 2
- Medallia Survey

This new microcode release supports DS8880 systems only.

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

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Acute: An irrecoverable error with potential loss of data.

None.

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

HPFE Gen2 enclosure boot failure

- 1. Problem Description:** Enclosure SAS interface card would not boot because it could not read both redundant copies of the enclosure midplane VPD.
- 2. Potential Impact of Problem:** loss of access, nonconcurrent repair
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID# 337649

Multiple HA MLE during failback

- 1. Problem Description:** Failback phase exceeded the Host Adapter timeout value, causing microcode logic errors on multiple adapters.
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID# 337972

HPFE Gen2 enclosure hang

- 1. Problem Description:** Multiple SAS error recovery actions exposed a microcode logic error that blocked access to the enclosure.
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID# 338141

During LPAR IML, operational LPAR rebooted

- 1. Problem Description:** During single LPAR IML, a latent Rack Power Control hardware error led to reboot of the operational LPAR.
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID# 338282

HPFE Gen2 dual adapter resets

- 1. Problem Description:** Single flash drive failure led to multiple dual adapter resets
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID# 339272

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Moderate: A system path is not operational and/or performance may be degraded.

PPRC suspended

- 1. Problem Description:** Copy Source to Target process hung while processing the last partial stride in the source extent
- 2. Potential Impact of Problem:** PPRC Suspend
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID# 336924

PPRC Suspended

- 1. Problem Description:** PPRC multi-track writes deadlocked with safe data commit scan of cache metadata.
- 2. Potential Impact of Problem:** PPRC Suspend
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID# 337297

0x2716 MLE during rank creation

- 1. Problem Description:** ESE extent was allocated for QuickInit metadata, before rank setup was complete.
- 2. Potential Impact of Problem:** Cluster Failover
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID# 337522

0x0109 MLE with IBM i hosts

- 1. Problem Description:** Error during cache access while processing a Skip Read/Write command
- 2. Potential Impact of Problem:** Warmstart
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID# 337751

0x0109 MLE when disabling zHyperLink writes

- 1. Problem Description:** Disable function attempted to acquire a lock when it already had another.
- 2. Potential Impact of Problem:** Warmstart
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID# 338524

HA path fail after warmstart

- 1. Problem Description:** Abort during Process Logout phase left behind a stale exchange, preventing link cleanup.
- 2. Potential Impact of Problem:** loss of path
- 3. Problem Severity:** Moderate
- 4. Pervasive Problem:** No

ID# 338688

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0x0109 MLE

- 1. Problem Description:** Lock contention while processing the low-priority PPRC wait queue
 - 2. Potential Impact of Problem:** Warmstart
 - 3. Problem Severity:** Moderate
 - 4. Pervasive Problem:** No
- ID# 338866

0x7F07 MLE

- 1. Problem Description:** Performing CDA from R8.2 or earlier levels, to R8.5 or later levels, the LPAR on the old code does not understand the flashcopy status being sent by the LPAR that running on the new code.
 - 2. Potential Impact of Problem:** Warmstart, CDA suspend
 - 3. Problem Severity:** Moderate
 - 4. Pervasive Problem:** No
- ID# 339520

Service: A recoverable error, Service improvements.

False BSM set EoL message

- 1. Problem Description:** Battery End-of-life check failed because of a communication error.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 334468

DC-UPS battery still fenced after replacement

- 1. Problem Description:** Battery End-of-Life check ran while the battery set was still being replaced.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 335620

CMUN80293E creating IPSEC connection

- 1. Problem Description:** Code could not determine that IPSEC service was running because an OS change renamed the .pid file
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 336684

Abort field install when an unknown rack is present

- 1. Problem Description:** Field-merge A and B racks were installed as a system, leaving some install tasks undone
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 336709

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Auto-Offload PE package incomplete

- 1. Problem Description:** Auto-offload process sent the PE package before all compress operations were completed.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 336710

Serious alert, but no callhome

- 1. Problem Description:** Callhome of the event was left disabled by a prior failed repair attempt that was aborted by HMC reboot.
 - 2. Potential Impact of Problem:** Callhome failure
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 337554

Expand FRU list for SRC=BE316003

- 1. Problem Description:** Improve FRU call for transient LRC errors on Device Adapter loops
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 337555

Allow DSGUI/DSCLI passwords > 16 characters

- 1. Problem Description:** Client was unable to create strong user passwords longer than 16 characters
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 338295

0x166A MLE during HPFE Gen2 firmware download

- 1. Problem Description:** System date/time was adjusted during firmware download, exposing a microcode logic error
 - 2. Potential Impact of Problem:** ODD dump
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 338304

DS GUI reports false Global Mirror session messages

- 1. Problem Description:** DS GUI repeatedly displays false "GM session copy state changed to running" messages.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 338372

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Rank create failed

- 1. Problem Description:** Ranks were previously removed, but stale Resource Groups were left behind.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 338551

zHyperLink transceiver wrap error

- 1. Problem Description:** Wrap test continually failed because cumulative wrap test link error counters were not being cleared.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 338830

I/O enclosure repair action failed

- 1. Problem Description:** IOBay firmware was not unpacked on the HMC that was driving the repair.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 338923

Unable to terminate MTIR pairs

- 1. Problem Description:** Multi-Target Incrementay Resync secondary pairs could not be manually terminated, where no path exists between the two secondary storage systems.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 339236

LDAP configuration failures

- 1. Problem Description:** HMC cipher suite is insufficient for some current LDAP implementations
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 339340

Remote syslog message flood

- 1. Problem Description:** Incorrect HMC rsyslog rule order
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 339450

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CSM/DSCLI show incorrect SafeGuarded Copy information

- 1. Problem Description:** In systems upgraded to R8.5 bundles before Copy Services license key is installed, SafeGuarded Copy message service is not started
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Service
 - 4. Pervasive Problem:** No
- ID# 339620

Improvements: Improvements for better usability

Callhome for PPRC link errors

- 1. Problem Description:** Provide visibility for PPRC links that are experiencing intermittent FC link errors
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Improvement
 - 4. Pervasive Problem:** No
- ID# 331024

Enable DC-UPS automatic battery test

- 1. Problem Description:** Improve detection of batteries that have reached early end-of-life
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Improvement
 - 4. Pervasive Problem:** No
- ID# 334711

Add cloud type for generic S3 cloud

- 1. Problem Description:** Add new cloud type support for Transparent Cloud Tiering
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Improvement
 - 4. Pervasive Problem:** No
- ID# 337174

New SRC BE198CFA

- 1. Problem Description:** Provide new refcode to indicate "RPC internal register contains unexpected value".
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Improvement
 - 4. Pervasive Problem:** No
- ID# 338733

Improve Device Adapter LRC checking

- 1. Problem Description:** Change CKD LRC strategy from per-track to per-record.
 - 2. Potential Impact of Problem:** none
 - 3. Problem Severity:** Improvement
 - 4. Pervasive Problem:** No
- ID# 338865

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Remove HMC warning popup

- 1. Problem Description:** Remove unnecessary warning message that displays when performing a repair action using an HMC that is not acting as Problem Analysis primary.
- 2. Potential Impact of Problem:** none
- 3. Problem Severity:** Improvement
- 4. Pervasive Problem:** No

ID# 339498

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