

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

Release Date: October 31, 2019

VRMF Level Data Results:

VRMF level From:	87.52.28.0
VRMF Level To:	87.52.35.0
Report for:	All DS8870

Code Bundle Contents

DS8000 Code Bundle	SEA or LMC	DSCLI Client	STAT Tool	Easy Tier Client	Heat Map Transfer Utility	Storage Manager Code Level
87.52.35.0	7.7.52.1060	7.7.52.1060	7.7.52.1060	7.7.52.1060	7.7.52.1060	5.7.52.1045

Overview of new features and functions supported by this release on DS8870 242x model 961

At a glance:

- Code fixes
- **Note:** Upgrades to 87.52.35.0 from levels below 87.5x.x.x will require two-step HMC transformation

This new microcode release supports DS8870 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

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

Acute: An irrecoverable error with potential loss of data.

None.

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

0x05E0 MLE

- 1. Problem Description:** FlashCopy establish C->A was triggered while A->B was still in progress.
- 2. Potential Impact of Problem:** Warmstart, could lead to loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID#: 341222

Incorrect drive allocation in RAID-10 arrays

- 1. Problem Description:** Error conditions while creating arrays caused both primary and secondary drives to be on the same loop, creating a single point of failure
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID#: 341427

Failing PPRC links led to loss of access

- 1. Problem Description:** Repeated PPRC link recovery with large numbers of relationships can lead to an Out of Task Control Blocks condition on the primary system.
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID#: 341443

Repeated 0x4143 MLE

- 1. Problem Description:** Mid-chain Locate Record / Erase commands sent by System Data Mover exposed a microcode logic error.
- 2. Potential Impact of Problem:** loss of access
- 3. Problem Severity:** High Impact
- 4. Pervasive Problem:** No

ID#: 342604

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

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

I/O bay repair failed deactivation

1. **Problem Description:** On systems with 128 host ports, Host Adapter resource managers may run out of memory
2. **Potential Impact of Problem:** Extended I/O bay repair
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes

ID#: 339888

0x4477 MLE

1. **Problem Description:** A zHPF multi-track read operation encountered a microcode logic error during end-of-chain processing.
2. **Potential Impact of Problem:** Warmstart
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 340236

Rank depopulation failed

1. **Problem Description:** Background QuickInit failed to acquire a Task Control Block
2. **Potential Impact of Problem:** DePop failure
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 341636

0x0632 MLE

1. **Problem Description:** End-of-chain processing began while still processing a CKD write domain.
2. **Potential Impact of Problem:** Warmstart
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes

ID#: 342547

0x1645 MLE

1. **Problem Description:** Device Adapter failure during array rebuild exposed a microcode logic error when bad sectors exist
2. **Potential Impact of Problem:** Warmstart, cluster failover
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 344894

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

High read response times

1. **Problem Description:** Excessive cache is being allocated to sequential workloads causing increased cache demote of random tracks.
2. **Potential Impact of Problem:** degraded performance
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes

ID#: 345393

Service: A recoverable error, Service improvements.

CMUN80000E DS Network server is unavailable

1. **Problem Description:** When remote authentication is enabled, local admin user could not connect because authentication request is being sent to LDAP
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 334265

0x723E MLE

1. **Problem Description:** When deleting a Fixed Block volume, not all metadata for the volume was deleted.
2. **Potential Impact of Problem:** On Demand Data (ODD) dump
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 337002

CMUN04003E lshost: Operation failure: internal error

1. **Problem Description:** When creating a very large number of host port definitions, internal Resource Manager query may exceed the allowed memory page size
2. **Potential Impact of Problem:** Cannot display/create host ports
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 339127

Unable to download code bundles from Fix Central

1. **Problem Description:** System was configured with administrator contact in a different country, and download did not try entitlement using both country codes
2. **Potential Impact of Problem:** Unable to perform Remote Code Load
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 340798

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

DSCLI unable to connect

1. **Problem Description:** HMC had ESSNI queue full condition, and did not redirect DSCLI request through the partner HMC
 2. **Potential Impact of Problem:** DSCLI command failures
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 340933

Collect additional code levels in heartbeat data

1. **Problem Description:** Heartbeat collected code levels file only contains HMC and ICS related entries. Process improved to collect all currently installed levels.
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 341259

HMCs inaccessible

1. **Problem Description:** Java.net.SocketException: Too many open files error caused by use of an incorrect parameter
 2. **Potential Impact of Problem:** Unable to monitor/control DS8000
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 341328

Unable to repair failed DDM

1. **Problem Description:** Replacement drive was rejected because a stale resource manager attribute was not cleared by the repair.
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 341505

DSCLI CMUN00018E message on HP-UX host

1. **Problem Description:** HMC code incorrectly attempted to connect using the wrong SSL protocols
 2. **Potential Impact of Problem:** Host unable to connect to HMC
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 342415

Deleted user ID reappears after reboot

1. **Problem Description:** When default local users like 'CE' or 'Customer' have been deleted, logic to recreate them during reboot was not suppressed.
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 342469

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

Spectrum Control out-of-memory condition

1. **Problem Description:** Log processor queue can fill faster than logs are able to be written to file
2. **Potential Impact of Problem:** Frequent out-of-memory dumps
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 342724

Unable to set SIM reporting to 4

1. **Problem Description:** Setting SIM reporting to 4 (none) results in an 'invalid value' message
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 342765, 342956

Spectrum Control NullPointerException

1. **Problem Description:** NullPointerException connecting to ESSNI service in HMCs
2. **Potential Impact of Problem:** Unable to monitor the system
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 342857

Auto PE Package offload failure

1. **Problem Description:** Function was present in code, but was not enabled.
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 343769

DSCLI 'showsu' incomplete output

1. **Problem Description:** DSCLI 'showsu' output does not show power and environmental output
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 343854

Heartbeat interval changed after CDA

1. **Problem Description:** After HMC transformation or rebuild, heartbeat callhome reverts to the default 7 day interval.
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 344092

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

DS GUI CMUN80564E message loading cache

1. **Problem Description:** In systems with large numbers of volume groups, the query selection string exceeds the maximum length
 2. **Potential Impact of Problem:** DS GUI failure
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 344232

False BE19B084 SRC during RPC replacement

1. **Problem Description:** While replacing Rack Power Control card, a new serviceable event was posted because of a register mismatch condition.
 2. **Potential Impact of Problem:** Extended service action
 3. **Problem Severity:** Service
 4. **Pervasive Problem:** No
- ID#: 344546

Improvements: Improvements for better usability

Disable direct ssh login from Customer network

1. **Problem Description:** Improve security by closing ssh port 22 for direct login. Does not affect remote support via AOS or RSC
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Improvement
 4. **Pervasive Problem:** No
- ID#: 338691

ESSNI tracing improvements

1. **Problem Description:** Improve logging in ESSNI, to provide better information about the cause of HMC communication issues.
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Improvement
 4. **Pervasive Problem:** No
- ID#: 339955

Update remote access information in callhome data

1. **Problem Description:** Provide additional information for AOS and RSC remote support access methods
 2. **Potential Impact of Problem:** none
 3. **Problem Severity:** Improvement
 4. **Pervasive Problem:** No
- ID#: 345136

IBM System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

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 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 System Storage - DS8870 Disk Storage

Microcode Bundle 87.52.35.0 Release Note Information

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.