

IBM TotalStorage® DS8800 Disk Storage 1 Microcode Bundle 86.20.121.0 v2 Release Note Information

Release Date: June 29, 2012

VRMF Level Data Results:

VRMF level From:	86.20.117.0
VRMF Level To:	86.20.121.0
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
86.20.121.0	7.6.20.660	7.6.20.660	5.6.20.1142

Overview of new features and functions supported by Microcode Release 86.20.101.0 for DS8800 , 242x model 951.

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® DS8800 Disk Storage 2

Microcode Bundle 86.20.121.0 v2 Release Note Information

Acute: An irrecoverable error with potential loss of data.

Change smart rebuild abort error handling

1. **Problem Description:** When smart rebuild is forced to abort due to too many errors on the source drive a full raid rebuild will be performed.
 2. **Potential Impact of Problem:** loss of data
 3. **Problem Severity:** HIPER
 4. **Pervasive Problem:** Yes
- ID#: 269509

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

Internal I/O fabric error caused by time-out

1. **Problem Description:** A time-out of a host adapter read from cache causes an internal I/O fabric error. All adapters in the I/O Enclosure will be fenced, the fabric error recovery could hold off I/O long enough to cause host I/O time-out errors.
2. **Potential Impact of Problem:** Loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes

Control unit ports have test initialization hung preventing re-login

1. **Problem Description:** Control unit ports are hung (TIN) test initialization and are unable to re-login to the switch due to a microcode logic error. This will cause MIH errors leading to loss of access on all paths.
 2. **Potential Impact of Problem:** loss of access
 3. **Problem Severity:** High Impact
 4. **Pervasive Problem:** No
- ID#: 269518

Single bit memory error causes DA adapter reset

1. **Problem Description:** Single bit memory error causes DA error and adapter reset, multiple errors are possible. This can result in a fenced DA adapter or loss of access
 2. **Potential Impact of Problem:** loss of access
 3. **Problem Severity:** HIPER
 4. **Pervasive Problem:** Yes
- ID#: 263990

DA adapter ports enabled during cluster failover

1. **Problem Description:** During cluster failover or quiesce the DA adapter leaves the ports enabled. Partner DA adapters are unable to communicate to the DA adapters because the processor is disabled.
 2. **Potential Impact of Problem:** loss of access
 3. **Problem Severity:** HIPER
 4. **Pervasive Problem:** Yes
- ID#: 265801

IBM TotalStorage® DS8800 Disk Storage 3

Microcode Bundle 86.20.121.0 v2 Release Note Information

Reset of host adapter leaves link light active

1. **Problem Description:** When a reset of a host adapter is delayed the link light is left active causing the host to retry the path until the 30 second timer on the turns the link light off
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes

ID#: 263194

Fencing an I/O enclosure leaves HA ports with light on

1. **Problem Description:** When an I/O Enclosure is fenced the host adapters light on the host adapter ports, which are also fenced
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No

ID#: 262907

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

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
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No

ID#: 269263

Service: A recoverable error, Service improvements.

Failure deleting PAV alias volumes

1. **Problem Description:** Deleting PAV alias volumes in parallel will fail and a warmstart will occur due to a microcode logic error.
2. **Potential Impact of Problem:** Unable to delete PAV alias volumes
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 269207

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
3. **Problem Severity:** Service
4. **Pervasive Problem:** No

ID#: 264617

Improvements: Improvement for better usability

None

IBM TotalStorage® DS8800 Disk Storage

Microcode Bundle 86.20.121.0 v2 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](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® DS8800 Disk Storage 5

Microcode Bundle 86.20.121.0 v2 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.