

# IBM System Storage - DS8900F Disk Storage Microcode Bundle 89.22.19.0 Release Note Information v1.1

Release Date: December 8, 2022

## VRMF Level Data Results:

VRMF level From:	89.22.17.0
VRMF Level To:	89.22.19.0
Report for:	DS8900F

## Code Bundle Contents

DS8900F Code Bundle Level	SEA or LMC Version:	DSCSI Client	Heat Map Transfer Utility	Storage Manager	Copy Services Manager
89.22.19.0	7.9.22.54	7.9.22.48	7.9.22.48	5.9.22.1021	6.3.2

Overview of new features and functions supported by this release on DS8900F 533x models 993/994/996/998

## At a glance:

- Code fixes

**This new microcode release supports DS8900F 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: Irrecoverable error with potential loss of data. - Serious: Irrecoverable error with potential loss of access to data, or critical function.
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 - DS8900F Disk Storage**

## **Microcode Bundle 89.22.19.0 Release Note Information v1.1**

**Acute: An irrecoverable error with potential loss of data.**

None.

**Serious: An irrecoverable error with potential loss of access to data, or critical function.**

### **HIPER Temporary loss of access with an unusual workload pattern.**

**1 Problem Description:** Workloads with a small number of tracks in NVS, but very high update write activity to those same tracks, may lead to a destage stall condition. Problem is more likely to occur in DS8910F systems with minimum cache/NVS size.

<https://www.ibm.com/support/pages/node/6857815>

**2 Potential Impact of Problem:** Warmstart, loss of access

**3 Environment:** Systems running R9.2 SP2 – 89.22.17.0.

**4 Problem Severity:** HIPER

**5 Pervasive Problem:** Yes

ID# 358142

### **Failure to establish additional PPRC relationships**

**1 Problem Description:** Multi-Target relationships could not be created because there were no free primary relationship entries. Original Relation IDs still existed in the control structures, but were not reused. <https://www.ibm.com/support/pages/node/6857809>

**2 Potential Impact of Problem:**

- Unexpected full copy

- Unable to create Multi-Target relations

**3 Environment:** Copy services – See notification link.

**4 Problem Severity:** High Impact

**5 Pervasive Problem:** No

ID# 358170

### **XRC session forward time creep**

**1 Problem Description:** In R9 systems, timekeeping based on processor ticks causes a forward time creep, which System Data Mover and XRC software do not handle well. Systems that have extended periods with no updates on any volume in a LCU / SSID may see message ANTX5001E with No Record Found, or Invalid Track Format, and ANTX5104E RC=0901 indicating incorrect data is written to the secondary volume

**2 Potential Impact of Problem:** XRC failure

**3 Environment:** XRC on R9 systems

**4 Problem Severity:** High Impact

**5 Pervasive Problem:** No

ID# 358622

# **IBM System Storage - DS8900F Disk Storage**

## **Microcode Bundle 89.22.19.0 Release Note Information v1.1**

### **HIPER Transparent Cloud Tiering fails to start**

**1 Problem Description:** Application Framework fails to start in systems running R9.2 SP2 - 89.22.17.0. This affects startup of Transparent Cloud Tiering functions.

<https://www.ibm.com/support/pages/node/6891151>

**2 Potential Impact of Problem:** Loss of TCT function.

**3 Environment:** Systems running R9.2 SP2 - 89.22.17.0.

**4 Problem Severity:** HIPER

**5 Pervasive Problem:** Yes

ID# 360055

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

### **Copy Services Manager PPRC query failed with reason 3800**

**1 Problem Description:** ESSNI fails to get table entries from multiple kernel pipe requests, resulting in 0xF28 timeouts.

**2 Potential Impact of Problem:** Degraded CSM performance,

**3 Environment:** CSM-managed PPRC

**4 Problem Severity:** Moderate

**5 Pervasive Problem:** No

ID# 359691

### **Heat Map transfer failed with SRC=BE74160D**

**1 Problem Description:** Application Framework fails to start in systems running R9.2 SP2 - 89.22.17.0. This affects all EasyTier functions.

**2 Potential Impact of Problem:** Degraded performance.

**3 Environment:** Systems running R9.2 SP2 - 89.22.17.0.

**4 Problem Severity:** Moderate

**5 Pervasive Problem:** Yes

ID# 360027

**Service: A recoverable error, Service improvements**

None.

**Improvements: Improvements for better usability**

None.

# **IBM System Storage - DS8900F Disk Storage**

## **Microcode Bundle 89.22.19.0 Release Note Information v1.1**

### **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 - DS8900F Disk Storage**

## **Microcode Bundle 89.22.19.0 Release Note Information v1.1**

**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.