

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Date: 9 October, 2025

VRMF Level Data Results:

VRMF level From:	89.40.83.0
VRMF Level To:	89.44.5.0
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
89.44.5.0	7.9.44.11	7.9.44.11	7.9.44.11	5.9.44.1005	6.3.10
89.44.4.0	7.9.44.9	7.9.44.9	7.9.44.9	5.9.44.1004	6.3.10
89.43.9.1	7.9.43.26	7.9.43.26	7.9.43.26	5.9.43.1014	6.3.10
89.43.9.0	7.9.43.26	7.9.43.26	7.9.43.26	5.9.43.1014	6.3.10
89.43.3.1	7.9.43.10	7.9.43.10	7.9.43.10	5.9.43.1006	6.3.10
89.43.3.0	7.9.43.10	7.9.43.10	7.9.43.10	5.9.43.1006	6.3.10
89.42.18.0	7.9.42.46	7.9.42.46	7.9.42.46	5.9.42.1022	6.3.10
89.41.25.0	7.9.41.65	7.9.41.59	7.9.41.59	5.9.41.1028	6.3.10
89.41.23.0	7.9.41.61	7.9.41.59	7.9.41.59	5.9.41.1026	6.3.10
89.41.22.0	7.9.41.59	7.9.41.59	7.9.41.59	5.9.41.1025	6.3.11
89.40.93.0	7.9.40.248	7.9.40.241	7.9.40.241	5.9.40.1095	6.3.8
89.40.89.0	7.9.40.241	7.9.40.241	7.9.40.241	5.9.40.1092	6.3.8
89.40.83.0	7.9.40.227	7.9.40.227	7.9.40.227	5.9.40.1087	6.3.8

This is a summary of the fixes in the R9.4 microcode releases.

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

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Acute: An irrecoverable error with potential loss of data.

HIPER DB2 IO error during LCP recovery

- 1 Problem Description:** <https://supportcontent.ibm.com/support/pages/node/7232918>
 - 2 Potential Impact of Problem:** Undetected data loss
 - 3 Environment:** All R9 / R10 using Safeguarded Copy
 - 4 Problem Severity:** High Impact
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.44.4.0
- ID 372800

Potential undetected data loss with Global Mirror

- 1 Problem Description:** <https://www.ibm.com/support/pages/node/7244628>
 - 2 Potential Impact of Problem:** Undetected data loss
 - 3 Environment:** All R9
 - 4 Problem Severity:** High Impact
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.44.4.0
- ID 372953

Data check multiple sectors LRC

- 1 Problem Description:** There exists a scenario with grouped discard scans, where the scan's ending limit is not set correctly.
 - 2 Potential Impact of Problem:** Loss of data on secondary
 - 3 Environment:** All R9 / R10
 - 4 Problem Severity:** High Impact
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.44.4.0
- ID 373700

Safeguarded Copy data loss

- 1 Problem Description:** If a reservation timer expires, the reservation will be deleted. A query to the Safeguarded source volume while code is expiring the checkin, may encounter lock contention, resulting in loss of the Safeguarded source volume.
 - 2 Potential Impact of Problem:** Loss of Safeguarded Copy data
 - 3 Environment:** Safeguarded Copy
 - 4 Problem Severity:** High Impact
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.42.18.0
- ID# 367826

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Safeguarded Copy data loss

- 1 Problem Description:** Running Flashcopy onto Safeguarded source, if the Flashcopy volume runs out of space, code incorrectly releases space on the Safeguarded source.
- 2 Potential Impact of Problem:** Loss of Safeguarded Copy data
- 3 Environment:** Flashcopy onto Safeguarded source
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 368216

Cascaded Flashcopy data loss

- 1 Problem Description:** With FB volumes in a cascaded Flashcopy relationship (A->B, B->C), when A->B is withdrawn, the code incorrectly releases space on volume B
- 2 Potential Impact of Problem:** Data loss
- 3 Environment:** FB cascaded Flashcopy on R9.3 and R9.4
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 368784

Safeguarded Copy data loss after a power outage

- 1 Problem Description:** During IML, a microcode logic error caused Safeguarded Copy volumes to be marked as pinned, non-retrieable.
- 2 Potential Impact of Problem:** Loss of Safeguarded Copy data
- 3 Environment:** All using Safeguarded Copy
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 368932

Safeguarded Copy recover action fails with IWNR1027E

- 1 Problem Description:** While rolling off a Safeguarded Copy backup, that is being used as a recovery point, an error handling event (e.g. warmstart) may render the backup unusable.
- 2 Potential Impact of Problem:** Loss of Safeguarded Copy data
- 3 Environment:** All using Safeguarded Copy
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 369528

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HIPER Potential undetected loss of DS8000 CKD Remote Pair Flashcopy Target data

- 1 Problem Description:** <https://www.ibm.com/support/pages/node/7158073>
- 2 Potential Impact of Problem:** Loss of data
- 3 Environment:** Remote Pair Flashcopy on 89.33.35.0 – 89.41.23.0 bundles
- 4 Problem Severity:** HIPER
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.25.0

ID# 367397

Pinned, nonretryable data in cache

- 1 Problem Description:** Two identical zHyperlink commit track operations were attempted to the same track ID.
- 2 Potential Impact of Problem:** Loss of data
- 3 Environment:** zHyperlink
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 364508

HIPER Potential undetected loss of DS8000 Safeguarded Copy source volume data during an LPAR error handling event.

- 1 Problem Description:** <https://www.ibm.com/support/pages/node/7129800>
- 2 Potential Impact of Problem:** Loss of data
- 3 Environment:** All using Safeguarded Copy
- 4 Problem Severity:** HIPER
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.93.0, 89.41.22.0

ID# 363337

HIPER Potential undetected loss of DS8000 CKD Remote Pair Flashcopy Target data during an LPAR error handling event.

- 1 Problem Description:** <https://www.ibm.com/support/pages/node/7145622>
- 2 Potential Impact of Problem:** Loss of data
- 3 Environment:** All using Remote Pair Flashcopy
- 4 Problem Severity:** HIPER
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.93.0, 89.41.22.0

ID# 365221

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HIPER Inconsistent undetected Safeguarded Copy backup data after DS8900F LPAR failover/failback

- 1 **Problem Description:** <https://www.ibm.com/support/pages/node/7108909>
 - 2 **Potential Impact of Problem:** Loss of data
 - 3 **Environment:** Safeguarded Copy on R9.3 SP2 - 89.32.37.0 or higher
 - 4 **Problem Severity:** HIPER
 - 5 **Pervasive Problem:** No
 - 6 **Release Bundle:** 89.40.89.0
- ID# 364258

HIPER Potential DS8900F Data Loss during a power failure event

- 1 **Problem Description:** <https://www.ibm.com/support/pages/node/7084247>
 - 2 **Potential Impact of Problem:** Loss of data
 - 3 **Environment:** All DS8900F
 - 4 **Problem Severity:** HIPER
 - 5 **Pervasive Problem:** Yes
 - 6 **Release Bundle:** 89.40.83.0
- ID# 360405, 363205

Track Format Descriptor mismatch on PPRC secondary

- 1 **Problem Description:** Changes made to fix Preserve Mirror FlashCopy failures exposed a timing window that can lead to loss of data on PPRC secondary.
 - 2 **Potential Impact of Problem:** Loss of data
 - 3 **Environment:** DS8900F running R9.3 SP3
 - 4 **Problem Severity:** High Impact
 - 1 **Pervasive Problem:** No
 - 2 **Release Bundle:** 89.40.83.0
- ID# 360573

HIPER Loss of Safeguarded backup, using multiple control and monitoring functions

- 1 **Problem Description:** <https://www.ibm.com/support/pages/node/7047627>
 - 2 **Potential Impact of Problem:** Loss of data
 - 3 **Environment:** All Safeguarded Copy / Logical Corruption Protection
 - 4 **Problem Severity:** HIPER
 - 5 **Pervasive Problem:** Yes
 - 6 **Release Bundle:** 89.40.83.0
- ID# 363044

HIPER Inconsistent data on Safeguarded recovery volume

- 1 **Problem Description:** <https://www.ibm.com/support/pages/node/7067777>
 - 2 **Potential Impact of Problem:** Loss of data
 - 3 **Environment:** Safeguarded recovery on R9.3 SP3.x
 - 4 **Problem Severity:** HIPER
 - 5 **Pervasive Problem:** No
 - 6 **Release Bundle:** 89.40.83.0
- ID# 363544

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

Temporary loss of access during a drive failure

- 1 Problem Description:** Fabric recovery delayed the sparing process.
- 2 Potential Impact of Problem:** Temporary loss of access
- 3 Environment:** All R9
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.44.4.0

ID 368090

HIPER Frequent /var filesystem full on both HMCs

- 1 Problem Description:** Excessive thread dumps when handling network recovery actions.
- 2 Potential Impact of Problem:** Unable to manage storage and copy services
- 3 Environment:** R10 GA / R9.4 SP2 and newer
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** Yes.
- 6 Release Bundle:** 89.44.4.0

ID 372368

Remediation of critical and high PVRs

- 1 Problem Description:** <https://www.ibm.com/support/pages/node/7246629>
- 2 Potential Impact of Problem:** Security vulnerabilities
- 3 Environment:** All R9 / R10
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.44.4.0

ID# 373797

Transparent Cloud Tiering copier improvements

- 1 Problem Description:** Code enhancements to improve TCT copier performance, and reliability.
- 2 Potential Impact of Problem:** Degraded throughput, job hangs.
- 3 Environment:** All R9 using TCT
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 367069

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Safeguarded Copy source volumes write inhibited

- 1 Problem Description:** When an extent pool is out of space, Safeguarded Copy is taking too long to fail the operation, and free the lock needed to allow roll-off to free up space in the pool.
- 2 Potential Impact of Problem:** Loss of access
- 3 Environment:** All R9 using Safeguarded Copy
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 368070

I/O timeouts caused by missing State Change Interrupt (SCI)

- 1 Problem Description:** If the paths to a device from a specific host image are in a Mixed grouped/ungrouped state, and a SCI is first offloaded on one of the ungrouped paths, the SCI indication for the grouped paths will also be cleared.
- 2 Potential Impact of Problem:** I/O timeouts when undergoing CS state transitions, or are coming out of long busy.
- 3 Environment:** R9.4.x and z/OS workloads
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 371904

Unplanned Hyperswap

- 1 Problem Description:** Customer was able to delete a volume that still had CS relations, even without the "Force" option on DS CLI.
- 2 Potential Impact of Problem:** PPRC suspend
- 3 Environment:** Copy Services
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 364566

Repeated warmstarts during Safeguarded copy reservation

- 1 Problem Description:** Safeguarded volume expansion was initiated, while creating the first backup. This exposed a timing window where data structures did not reflect the expanded capacity, causing failure to write to the Safeguarded volumes.
- 2 Potential Impact of Problem:** Loss of access
- 3 Environment:** All Safeguarded Copy
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 366416

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HIPER ESSNI queries failing with null pointer exception

- 1 Problem Description:** Applications using "ESSNIClient.jar NIVersion" to collect DS8000 LIC information may not work after boxes move to R9.4.
- 2 Potential Impact of Problem:** Query failures
- 3 Environment:** R9 ≥ 89.40.82.0
- 4 Problem Severity:** HIPER
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.41.22.0

ID# 366713

HIPER zHyperlink read/write response time spikes

- 1 Problem Description:** <https://www.ibm.com/support/pages/node/7168984>
- 2 Potential Impact of Problem:** Severe performance degradation
- 3 Environment:** zHyperlink on 89.40.83.0 or 89.40.89.0
- 4 Problem Severity:** HIPER
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.93.0

ID# 365231

Transparent Cloud Tiering migration failure

- 1 Problem Description:** Repeated rmcloudserver and mkcloudserver commands exposed a memory leak in the LPAR Application Framework code. Recovery requires restart of AppFw service.
- 2 Potential Impact of Problem:** Loss of TCT function
- 3 Environment:** Systems using TCT
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 358294

Safeguarded Copy caused Global Mirror suspend

- 1 Problem Description:** If a Safeguarded Copy is interrupted by error handling behavior (e.g. warmstart) the source volume can be left in checkin_in_progress state. This will cause a "try later" response to I/O requests.
- 2 Potential Impact of Problem:** Loss of access
- 3 Environment:** Systems using Safeguarded Copy
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359167

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Transparent Cloud Tiering failure

- 1 Problem Description:** IBM Java has identified a memory heap size issue. This can lead to TCT processes hanging and needing to be restarted.
- 2 Potential Impact of Problem:** Loss of TCT function
- 3 Environment:** Systems running TCT
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359709

0x4143 MLE End-of-chain task timeout

- 1 Problem Description:** While cleaning up a stale relationship on the Metro Mirror secondary, incorrect handling of task locks led to a deadlock condition.
- 2 Potential Impact of Problem:** Repeated warmstarts
- 3 Environment:** R9.3 SP2 running Metro/Global Mirror, and using dataset-level preserve mirror FlashCopy on MM secondary.
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360285

PPRC path unusable

- 1 Problem Description:** When a PPRC path is in High Failure Rate status, test I/Os are sent to the secondary to evaluate if the condition still exists. A microcode issue may cause a resource leak during this process, that can cause the Host Adapter port to become unusable.
- 2 Potential Impact of Problem:** PPRC path unusable
- 3 Environment:** All DS8900F using PPRC
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360287

PPRC volumes stuck in duplex pending

- 1 Problem Description:** When converting a PPRC pair from Global Copy to Metro Mirror, queued zHyperLink write chains that could not be processed, were not cleared.
- 2 Potential Impact of Problem:** PPRC failure
- 3 Environment:** Systems using zHyperLink and PPRC
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360292

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Safeguarded Copy out-of-space, and GM suspend

- 1 Problem Description:** With Safeguarded Copy destage grouping, If a Safeguarded volume is a Global Mirror secondary, GM revertible on consistency formation can interrupt the Safeguarded group copying, causing the group to fail. The tracks allocated for the group are not freed, which can lead to out-of-space conditions.
- 2 Potential Impact of Problem:** Safeguarded pool out of space, GM suspend
- 3 Environment:** SafeGuarded copy on R9.3
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360302

Drive failure caused a 25 second delay

- 1 Problem Description:** A deadlock condition was encountered when an unlock function needed for device recovery, was queued waiting for a Security Health Check function.
- 2 Potential Impact of Problem:** Temporary loss of access.
- 3 Environment:** All DS8900F
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360310

Transparent Cloud Tiering silent failures

- 1 Problem Description:** TCT is not handling some error responses from Amazon Web Services. TCT fails with no feedback when it receives an error response from AWS, even if TCT could recover from that situation.
- 2 Potential Impact of Problem:** Loss of TCT function
- 3 Environment:** TCT with AWS cloud
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360637

HIPER LDAP authentication failure

- 1 Problem Description:** Unable to login after code update, using native LDAP with bind password configured.
- 2 Potential Impact of Problem:** LDAP failure
- 3 Environment:** ≥R9.3 SP2 (89.32.37.0) and LDAP with bind PW
- 4 Problem Severity:** HIPER
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.40.83.0

ID# 360682

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Flash Drive failure impacted production

- 1 Problem Description:** A RAID-level recovery action was queued behind another recovery-driven read operation, to a drive that was no longer operational.
- 2 Potential Impact of Problem:** Permanent I/O error.
- 3 Environment:** DS8900F running R9.3 GA - 89.30.68.0 or higher.
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360685

Safeguarded Copy out of space

- 1 Problem Description:** Bitmaps are incorrectly set when Running Fast Reverse Restores on Safeguarded volumes. this leads to unnecessary full copy to the target, and can also lead to premature SC out of space.
- 2 Potential Impact of Problem:** Loss of access
- 3 Environment:** Safeguarded Copy and R9.3
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360749

Volumes stuck in long busy state

- 1 Problem Description:** A Flash drive failed in an unusual way, exposing an issue in a rarely used code path, that failed to send state change notifications, leaving multiple volumes in extended long busy state
- 2 Potential Impact of Problem:** Loss of access
- 3 Environment:** All
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360793

Copy Services Manager query received an empty list

- 1 Problem Description:** When ESSNI is down on an LPAR, copy services queries may return incorrect results to the client, instead of returning an error.
- 2 Potential Impact of Problem:** Unable to manage copy services
- 3 Environment:** All using copy services
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360865

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HIPER Transparent Cloud Tiering Out of Memory

- 1 Problem Description:** Multiple issues in TCT may lead to out-of-memory conditions, requiring support and/or development intervention to resolve.
- 2 Potential Impact of Problem:** Loss of TCT function
- 3 Environment:** All using TCT
- 4 Problem Severity:** HIPER
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.40.83.0

ID# 361014

Memory DIMM failure caused loss of access

- 1 Problem Description:** Cluster node recovery caused by failed memory DIMM incorrectly fenced the operational LPAR.
- 2 Potential Impact of Problem:** Loss of access
- 3 Environment:** All DS8900F
- 4 Problem Severity:** HIPER
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.40.83.0

ID# 361176

Space release in wrong GM session

- 1 Problem Description:** When devices in an LSS are in two Global Mirror sessions, a rare window exists when space is released, that it gets released on the wrong volume. This can cause an inconsistent group.
- 2 Potential Impact of Problem:** Incorrect consistency group data
- 3 Environment:** R9.3 and GM multi-session per LSS
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 361450

Global Mirror failed to form consistency groups

- 1 Problem Description:** When we pause GM, remove all volumes from the session, but leave the session open on the LSS (an empty session), then resume GM, GM will fail to form CGs
- 2 Potential Impact of Problem:** Global Mirror failure
- 3 Environment:** Global Mirror on R9.3 code
- 4 Problem Severity:** High Impact
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 362536

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Repeated 0x7729 MLE and LPAR failover

- 1 Problem Description:** Global Mirror collision thread was acting on a task control block at the same time as a pre-write intercept thread.
 - 2 Potential Impact of Problem:** Loss of access
 - 3 Environment:**
 - 4 Problem Severity:** High Impact
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.40.83.0
- ID# 363712

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

Slow IPL from Safeguarded Recovery Volume

- 1 Problem Description:** Destaging is slow on SGC recovery volume, causing slow IPL on host.
 - 2 Potential Impact of Problem:** Degraded Performance
 - 3 Environment:** All R9/R10 with Safeguarded Copy
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.44.4.0
- ID# 371706

Long I/O during Device Adapter error recovery

- 1 Problem Description:** Unnecessary DA to DA recovery operations cause long I/O to the host
 - 2 Potential Impact of Problem:** Degraded Performance
 - 3 Environment:** All R9
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.44.4.0
- ID# 371802

Customers unable to retrieve certificates

- 1 Problem Description:** User encounters an error using the GUI Remote Authentication wizard, when trying to retrieve certificates from two servers that have the same certificate.
 - 2 Potential Impact of Problem:** Authentication error.
 - 3 Environment:** All R9 / R10
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.44.4.0
- ID# 372415

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The authenticating user was not found

- 1 Problem Description:** Different DS CLI login messages allow malicious actors to enumerate existing users.
- 2 Potential Impact of Problem:** Security vulnerability
- 3 Environment:** All R9 / R10
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.44.4.0

ID# 373116

PPRC suspended - SCSI Task Deadlock

- 1 Problem Description:** Deadlock between the threads for both tracks of a PPRC two-track atomic write (torn page/dependent write) on a cascaded MGM intermediate.
- 2 Potential Impact of Problem:** PPRC suspend
- 3 Environment:** All R9 / R10
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.44.4.0

ID# 373428

Space Release caused 60 sec RPO spike

- 1 Problem Description:** A change made to data transport code can cause Consistency Groups to fail for retrievable transfers; this can lead to higher RPO during space release.
- 2 Potential Impact of Problem:** Degraded performance
- 3 Environment:** All R9 / R10
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.44.4.0

ID# 373951

Host Adapter MLE

- 1 Problem Description:** While processing an inbound exchange, a SAN link event may trigger a Microcode Logic Error.
- 2 Potential Impact of Problem:** Warmstart
- 3 Environment:** All R9
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.43.3.0

ID# 356274

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0x5039 MLE

- 1 Problem Description:** When quiescing a CKD volume for CS activity, code will wait for I/Os on volume 0000 to complete, regardless of which volume is being quiesced.
- 2 Potential Impact of Problem:** Warmstart.
- 3 Environment:** All R9 using CKD volumes.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 366400

Transparent Cloud Tiering unresponsive after a shutdown attempt

- 1 Problem Description:** A core segmentation fault can be triggered by the TCT shutdown process if it is performed while there is I/O running.
- 2 Potential Impact of Problem:** TCT unusable until restarted.
- 3 Environment:** All R9 using TCT.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 368945

IOS641I PORT STATE CHANGE messages for zHyperlinks

- 1 Problem Description:** z/OS is issuing a link reset to zHyperlinks, for timeouts that are not understood by DS8k or z development. Accordingly we are adding a long-term trace buffer, to better capture what is occurring.
- 2 Potential Impact of Problem:** zHyperlink down for ~20 seconds
- 3 Environment:** All R9 using zHyperlinks
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 369053

IEA494I PPRC PAIR DUPLEX PENDING FC messages missed by GDPS

- 1 Problem Description:** If a FlashCopy establish (or withdraw) causes a PPRC pair to go pending, present the SCI to all volumes, not just online volumes.
- 2 Potential Impact of Problem:** Failure to warn that the environment is not Hyperswap capable.
- 3 Environment:** All R9 using zHyperswap.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 369233

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89.40.x.x Release Notes Cumulative Summary v4.1

0x21E1 MLE

- 1 Problem Description:** Two Safeguarded Copy tasks "collided" while deallocating cache segments on the same cache track.
- 2 Potential Impact of Problem:** Warmstart.
- 3 Environment:** All R9 using Safeguarded Copy recovery point on an active backup.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 369645

0x4143 MLE, End of Chain Task Timeout

- 1 Problem Description:** A deadlock can occur, if a FlashCopy establish is issued to a target volume, that is also a PPRC primary, and suspend command is issued to this volume.
- 2 Potential Impact of Problem:** Warmstart.
- 3 Environment:** All R9 using FlashCopy onto PPRC
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 370151

0x062E MLE

- 1 Problem Description:** zHyperlink write task was interrupted by a subsequent zHyperlink write task.
- 2 Potential Impact of Problem:** Warmstart.
- 3 Environment:** All R9 using zHyperlink.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 370313

DS CLI password still exposed

- 1 Problem Description:** When logging into a DS8000 using DS CLI, a specific sequence may reveal the login password. Prior fix does not always work.
- 2 Potential Impact of Problem:** Security Exposure.
- 3 Environment:** All R9 using DS CLI on Windows.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 371442

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Enclosure Services Manager (ESM) fenced after Storage Enclosure midplane replaced

- 1 Problem Description:** Midplane repair does not reset state of ESMs immediately after it has passed verification.
- 2 Potential Impact of Problem:** Extended service action.
- 3 Environment:** All R9
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 371656

mkcloudserver fails with SSL handshake invalid certificate path exception

- 1 Problem Description:** Code logic sometimes selects the wrong certificates when creating the cloud
- 2 Potential Impact of Problem:** Warmstart.
- 3 Environment:** All R9 using multiple certificate pairs for TCT.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 372274

Disappearing Statistics in Storage Manager

- 1 Problem Description:** Customer is unable to use the Storage Manager statistics panel; it becomes blank after two days
- 2 Potential Impact of Problem:** Unable to monitor statistics
- 3 Environment:** All R9
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 357431

Migration jobs fail with TCT10E or TCT10F errors

- 1 Problem Description:** When the network is facing issues, the available connections remain in an incomplete CLOSE state, so they cannot be reused.
- 2 Potential Impact of Problem:** TCT job failure
- 3 Environment:** Transparent Cloud Tiering
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 364628

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

0x4143 CD MLE END OF CHAIN TASK TIMEOUT

- 1 Problem Description:** TCT recall jobs are not handling 'Try Later' error, when tracks to destage are in use by another component.
- 2 Potential Impact of Problem:** Degraded performance
- 3 Environment:** Transparent Cloud Tiering
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 364923

Export Performance Data columns mislabeled

- 1 Problem Description:** "IOPS (IOPS) Read IOPS (IOPS) Write IOPS (IOPS) Total" should be "IOPS (KIOPS) Read IOPS (KIOPS) Write IOPS (KIOPS) Total"
- 2 Potential Impact of Problem:** Misleading reports
- 3 Environment:** N/A
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 365361

LDAP authentication fails with CMUN81413E

- 1 Problem Description:** User cannot login when the LDAP policy has groupmemberattr configured.
- 2 Potential Impact of Problem:** Unable to login to HMCs
- 3 Environment:** LDAP using groupmemberattr
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 365547

Transparent Cloud Tiering tasks timing out

- 1 Problem Description:** When Copier receives an abort request for a job timeout, Copier cannot abort jobs that are in the Opening phase, leaving the tasks in an unexpected state.
- 2 Potential Impact of Problem:** TCT failure
- 3 Environment:** Transparent Cloud Tiering
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 366131

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Host Adapter DMA Timeout, MSI

- 1 Problem Description:** A zHPF write transfer > 64K bytes, was mis-handled, causing an invalid transfer count to be set.
 - 2 Potential Impact of Problem:** Warmstart
 - 3 Environment:** All zHPF
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.42.18.0
- ID# 368535

Performance graphs missing in DS GUI

- 1 Problem Description:** Undesired side effects in ESSNI database cleanup fix.
 - 2 Potential Impact of Problem:** Missing performance graphs
 - 3 Environment:** 89.41.23.0 – 89.41.25.0
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.42.18.0
- ID# 369362

Single LPAR 0x2021 MLE and reboot

- 1 Problem Description:** A Safeguarded Copy recovery relation was removed while a lookup table was being constructed, leading to a null pointer exception, and DSI.
 - 2 Potential Impact of Problem:** Degraded performance
 - 3 Environment:** Safeguarded Copy on 89.33.35.0, and all R9.4
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.42.18.0
- ID# 369402

LDAP authentication fails with CMUN81413E

- 1 Problem Description:** User cannot login when the LDAP policy has GroupDN configured.
 - 2 Potential Impact of Problem:** Unable to login to HMCs
 - 3 Environment:** LDAP using GroupDN
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.42.18.0
- ID# 369936

Customer Code Load failure

- 1 Problem Description:** Incorrect permissions granted when using custom user roles in LDAP.
 - 2 Potential Impact of Problem:** Customer is unable to update microcode
 - 3 Environment:** LDAP with custom user roles
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.41.22.0
- ID# 362429

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

DS CLI password exposed

- 1 Problem Description:** When logging into a DS8000 using DS CLI, a specific sequence may reveal the login password.
- 2 Potential Impact of Problem:** Security exposure
- 3 Environment:** DS CLI on Windows
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 363107

Transparent Cloud Tiering repeated task failures

- 1 Problem Description:** TCT is not closing and releasing all its resources when jobs fail.
- 2 Potential Impact of Problem:** TCT out of memory
- 3 Environment:** TCT, over congested networks.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 363370

Unexpected full copy during a site swap

- 1 Problem Description:** MTIR pair creation was unable to reuse a duplicate reserved relation.
- 2 Potential Impact of Problem:** Full copy during site swap
- 3 Environment:** Multi-Target Incremental Resync
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 363550

Web UI (WUI) user login failure

- 1 Problem Description:** Unable to login to WUI after microcode update to R9.4
- 2 Potential Impact of Problem:** Login failure
- 3 Environment:**
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.41.22.0

ID# 364346

Host Adapter resource manager failure

- 1 Problem Description:** Single port wrap test was attempted on a fenced Host Adapter port.
- 2 Potential Impact of Problem:** Warmstart
- 3 Environment:** All R9 $\geq$ 89.1.23.0
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 364528

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Web UI (WUI) login failures after HMC code update

- 1 Problem Description:** Certificate issues are preventing the Challenge-Response servlet from executing.
 - 2 Potential Impact of Problem:** Extended service action
 - 3 Environment:** All coming from R9.4 GA - 89.40.82.0
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** Yes
 - 6 Release Bundle:** 89.41.22.0
- ID# 364548

DS GUI login failure after upgrade to 89.40.83.0 or 89.40.89.0

- 1 Problem Description:** Security changes may cause false authentication failures.
 - 2 Potential Impact of Problem:** Unable to login to HMCs.
 - 3 Environment:** Update from R9.4 GA or GA2
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** Yes
 - 6 Release Bundle:** 89.41.22.0
- ID# 364707

Lock spin MLE

- 1 Problem Description:** Two or more CPUs attempt to access the same data structure lock. In certain conditions, one thread can incorrectly release the lock, causing a warmstart
 - 2 Potential Impact of Problem:** Warmstart
 - 3 Environment:** R9.4 $\geq$ 89.40.82.0
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.41.22.0
- ID# 364853

mkcloudserver fails with CMUN80993E

- 1 Problem Description:** Transparent Cloud Tiering is not validating if "/var/adm/mcstore/" folder exists
 - 2 Potential Impact of Problem:** TCT fails to start
 - 3 Environment:** TCT on R9 $\geq$ 89.33.42.0
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.41.22.0
- ID# 364921

0x014E MLE during LPAR code activation

- 1 Problem Description:** Miscompare in zHyperlink data structures after updating the first LPAR.
 - 2 Potential Impact of Problem:** Unable to resume LPAR back to dual-cluster mode.
 - 3 Environment:** All using zHyperlink in R/W mode
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.41.22.0
- ID# 365019

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

DS CLI getVersion is failing for older machines

- 1 Problem Description:** R9.4 DS CLI version is not compatible with older boxes when attempting to collect DS8K LIC version using "ver -l"
 - 2 Potential Impact of Problem:** Query failures
 - 3 Environment:** R9 ≥ 89.40.82.0
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.41.22.0
- ID# 366902

Web UI (WUI) login failures after HMC code update

- 1 Problem Description:** Certificate issues are preventing the Challenge-Response servlet from executing.
 - 2 Potential Impact of Problem:** Extended service action
 - 3 Environment:** All coming from R9.4 GA - 89.40.82.0
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** Yes
 - 6 Release Bundle:** 89.40.93.0
- ID# 364548

DS GUI login failure after upgrade to 89.40.83.0 or 89.40.89.0

- 1 Problem Description:** Security changes may cause false authentication failures.
 - 2 Potential Impact of Problem:** Unable to login to HMCs.
 - 3 Environment:** Update from R9.4 GA or GA2
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** Yes
 - 6 Release Bundle:** 89.40.93.0
- ID# 364707

0x014E MLE during LPAR code activation

- 1 Problem Description:** zHyperlink data structures incompatible after updating the first LPAR.
 - 2 Potential Impact of Problem:** Unable to resume LPAR back to dual-cluster mode.
 - 3 Environment:** zHyperlink on R9.4 GA or GA2
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.40.93.0
- ID# 365019

zHyperlink read response time spikes

- 1 Problem Description:** Changes made to enhance performance may not be appropriate for all workloads.
 - 2 Potential Impact of Problem:** Degraded performance
 - 3 Environment:** zHyperlink on R9.4 GA or GA2
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.40.93.0
- ID# 365231

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Enhance PPRC retry behavior related to secondary long busy

- 1 Problem Description:** Provide a copy services poke to drive internal retry when I/O to the secondary exceeds the specified timeout value.
- 2 Potential Impact of Problem:** Degraded performance
- 3 Environment:** Systems using synchronous PPRC
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 315141

0x01B7:50DB MLE

- 1 Problem Description:** Lock contention on sidefile and session locks, while handling many parallel Global Mirror collisions.
- 2 Potential Impact of Problem:** Degraded performance
- 3 Environment:** All running Global Mirror
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.40.83.0

ID# 346497

DS CLI 'offloadfiles' command hangs

- 1 Problem Description:** Process hang when using DS CLI to offload PE packages and state save or ODD dumps.
- 2 Potential Impact of Problem:** Delayed data offload
- 3 Environment:** DS8900F below R9.2
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.40.83.0

ID# 356416

0x7F73 MLE

- 1 Problem Description:** Microcode Logic Error triggered by a Safeguarded Copy check-in task that was allowed to run before the prior check-in for the same LSS had completed it's work.
- 2 Potential Impact of Problem:** Warmstart
- 3 Environment:** Systems running Safeguarded Copy
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 356795

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

PPRC suspend while updating to R9.3

- 1 Problem Description:** During code update to a Preserve Mirror secondary which is also a Safeguarded Copy volume, if a Preserve Mirror establish command is issued prior to CCL completing, it may result in suspending the Preserve Mirror.
- 2 Potential Impact of Problem:** Preserve Mirror suspend
- 3 Environment:** Systems using Safeguarded Copy
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359614

Enhance Transparent Cloud Tiering request processing

- 1 Problem Description:** Streamline processing of requests for TS7700 containers having large numbers of objects.
- 2 Potential Impact of Problem:** Degraded performance
- 3 Environment:** TCT connected to TS7700
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359635

Excessive Global Mirror pause delay

- 1 Problem Description:** In certain scenarios where cache component is required to quiesce a Write Set, code will wait up to 2 minutes for ongoing chains to complete.
- 2 Potential Impact of Problem:** Degraded Safeguarded Copy performance
- 3 Environment:** Systems running $\geq$ R9.1 GA
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360185

FB timeout waiting on SCSI task

- 1 Problem Description:** A process lock was not being released during warmstart or failover events
- 2 Potential Impact of Problem:** I/O delay, PPRC suspend
- 3 Environment:** All DS8900F
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360257

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

LDAP Remote Role Mapping

- 1 Problem Description:** GUI is sending a wrong role to NI for combined role (Logical and Copy Operator) for a group mapping.
- 2 Potential Impact of Problem:** Cannot complete LDAP configuration
- 3 Environment:** ≥R9.2 and LDAP
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360738

Multi-Factor Authentication failure

- 1 Problem Description:** When two HMCs are configured in the DS CLI profile file, and the active policy is RSA+LDAP, the login from DS CLI fails with CMUN00018E Unable to connect to the management console server.
- 2 Potential Impact of Problem:** DS CLI login failure
- 3 Environment:** DS CLI and MFA
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360792

Safeguarded Copy out of space

- 1 Problem Description:** When running on R9.3, which supports FlashCopy onto Safeguarded source, and the Customer is not using this function, a slow leakage of Safeguarded capacity space can occur.
- 2 Potential Impact of Problem:** Safeguarded Copy out of space
- 3 Environment:** Safeguarded Copy on R9.3 bundles
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360968

DS GUI shows incorrect write latency

- 1 Problem Description:** On the Volume Performance pane, the write latency displayed is inconsistent with what is shown for the LSS, or what the host is seeing.
- 2 Potential Impact of Problem:** Incorrect information
- 3 Environment:** All
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 361105

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Transparent Cloud Tiering "500 Internal Server" Error

- 1 Problem Description:** In public and private cloud environments, requests to list objects in a container, or to delete a container, may fail when more than 100K objects exist in the container.
- 2 Potential Impact of Problem:** Unable to list objects, or delete a container.
- 3 Environment:** All Public/Private TCT clouds
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 361486

DS GUI Create Volume function failure

- 1 Problem Description:** When defining new FB volumes in DS GUI, using only odd or even pool, the "Save" button is enabled, but does not actually work.
- 2 Potential Impact of Problem:** Unable to create FB volumes using DS GUI
- 3 Environment:** All Open Systems and IBMi
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 361744

LDAP binding user login failure after code upgrade

- 1 Problem Description:** Newer crypto library is not compatible with older library format.
- 2 Potential Impact of Problem:** LDAP user login failure
- 3 Environment:** DS8900F using LDAP with Bind password on 89.32.37.0 or higher.
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 362175

Host Adapter 0x07D2 MLE and fence

- 1 Problem Description:** Repeated correctable ECC error handling may lead to HA heartbeat failure.
- 2 Potential Impact of Problem:** Warmstart, loss of paths
- 3 Environment:** DS8900F running 89.33.35.0 or higher
- 4 Problem Severity:** Moderate
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 362350

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Remote Authentication failure after HMC reboot

- 1 Problem Description:** Remote Authentication, (e.g. LDAP, Active Directory), using encrypted bind passwords, may store different crypto keys on each HMC. This can cause Remote Authentication failures, following subsequent HMC reboots,
 - 2 Potential Impact of Problem:** HMC login failures
 - 3 Environment:** All DS8900F using Remote Authentication
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.40.83.0
- ID# 362469

0x7410 MLE

- 1 Problem Description:** A zHyperLink Write Intercept flag was left active for a PPRC relation that was no longer eligible for pre-write processing.
 - 2 Potential Impact of Problem:** Warmstart
 - 3 Environment:** All running zHyperLink with copy services.
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.40.83.0
- ID# 362660

Background Copy failed to restart

- 1 Problem Description:** Running FlashCopy if background copy operations are interrupted by a warmstart, they may fail to restart.
 - 2 Potential Impact of Problem:** FlashCopy fails to complete.
 - 3 Environment:** FlashCopy on 89.32.37 or higher
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.40.83.0
- ID# 362955

SRC BE34002C - Sparing failed

- 1 Problem Description:** An errant RAID-10 member drive does not get rejected in a timely manner.
 - 2 Potential Impact of Problem:** Degraded performance
 - 3 Environment:** DS8900F using RAID-10
 - 4 Problem Severity:** Moderate
 - 5 Pervasive Problem:** No
 - 6 Release Bundle:** 89.40.83.0
- ID# 362965

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Service: A recoverable error, Service improvements

DS GUI incorrectly displays PPRC paths after Hyperswap

- 1 Problem Description:** PPRC paths on the secondary system are displayed as 'Failed (ESCON Initialization)', while DS CLI reports correct path status.
- 2 Potential Impact of Problem:** Incorrect path status
- 3 Environment:** All R9
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.44.4.0

ID# 372193

GUI dashboard showing different used vs provisioned total capacity

- 1 Problem Description:** GUI is receiving CKD volume information in number of cylinders, but lacks the code to process the conversion.
- 2 Potential Impact of Problem:** Warmstart.
- 3 Environment:** All R9 using CKD volumes.
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 370318

After CDA, collectedCodeLevels file contains incorrect code version

- 1 Problem Description:** Ensure process to collect local HMC levels, will also run for peer HMC.
- 2 Potential Impact of Problem:** Incorrect reporting.
- 3 Environment:** All R9
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 371385

Cleanup AOS Entries in /etc/hosts on HMCs

- 1 Problem Description:** Entries provided to ensure Assist On-Site (AOS) availability are no longer needed, and are potentially counterproductive.
- 2 Potential Impact of Problem:** Loss of remote support capability using AOS.
- 3 Environment:** All R9
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 371439

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Withdraw support for unauthenticated Bind in LDAP

- 1 Problem Description:** Unauthenticated Bind poses a security risk.
- 2 Potential Impact of Problem:** Security exposure
- 3 Environment:** Remote authentication (e.g. LDAP)
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 364051

SNMP trap configuration missing after HMC rebuild

- 1 Problem Description:** HMC backup didn't include SNMP trap config for base feature
- 2 Potential Impact of Problem:** SNMP failure
- 3 Environment:** All R8 and R9
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 365210

REST API Self-update failure

- 1 Problem Description:** Update REST API fails authentication when remote authentication is configured.
- 2 Potential Impact of Problem:** Unable to update REST API
- 3 Environment:** REST API with remote authentication
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.89.0

ID# 363847

Missing zHyperLinks in DS GUI

- 1 Problem Description:** When connecting zHyperLinks, DS GUI may miss the event notification. Fix provided to periodically harvest the zHyperLinks.
- 2 Potential Impact of Problem:** Unable to monitor or configure zHyperLink
- 3 Environment:** Systems using zHyperLink
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 353671

System Summary lists incorrect CKD capacity

- 1 Problem Description:** DS GUI incorrectly calculates the TiB capacity of volumes configured for System Z.
- 2 Potential Impact of Problem:** None
- 3 Environment:** Systems $\geq$ R9.1 using CKD volumes
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 355837

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

False BED13xxx Management Enclosure fan errors

- 1 Problem Description:** Fans are being called out for replacement when only one enclosure power supply card detects a transient error.
- 2 Potential Impact of Problem:** Extended service action
- 3 Environment:** All DS8900F systems
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359440

DS GUI Dashboard missing "Used Capacity" bar for CKD

- 1 Problem Description:** When HMC is configured for French language, the dashboard shows Used Capacity for FB storage, but the CKD bar is missing.
- 2 Potential Impact of Problem:** Usability
- 3 Environment:** Customers using Firefox browser
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359528

DS GUI progress bar shows incorrect free space

- 1 Problem Description:** Progress bar is not showing correct free space when more than 1000 TiB free space exists for CKD.
- 2 Potential Impact of Problem:** Incorrect System Summary page
- 3 Environment:** N/A
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359651

Missing export icon

- 1 Problem Description:** Export button on the DS GUI Dashboard can not be seen by some Customer user roles. This change will provide export capability to all user roles. DS CLI is also affected.
- 2 Potential Impact of Problem:** Unable to export from HMC
- 3 Environment:** All DS8900F
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 361104, 361107

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Peer HMC Reload failure

- 1 Problem Description:** Peer HMC reload failed because critical data backups were not found in the expected directory.
- 2 Potential Impact of Problem:** HMC reload failure
- 3 Environment:** DS8900F running R9.1 GA or higher
- 4 Problem Severity:** Service
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 362389

Improvements: Improvements for better usability

First-Time Data Capture for PPRC path instability

- 1 Problem Description:** Create additional logging for First-Time Data Capture.
- 2 Potential Impact of Problem:** PPRC paths degraded
- 3 Environment:** All R9/R10 using PPRC
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.44.4.0

ID# 371397

Slow Transparent Cloud Tiering migration to Cloud

- 1 Problem Description:** Create additional logging for First-Time Data Capture.
- 2 Potential Impact of Problem:** Degraded Performance
- 3 Environment:** All R9 using TCT
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.43.3.0

ID# 364420

Certificate Signing Request abbreviates the STate attribute

- 1 Problem Description:** In CSR, ST=Arizona becomes ST=AZ, for example.
- 2 Potential Impact of Problem:** Noncompliant CSR.
- 3 Environment:** All R9, creating CSR using DS GUI. WUI is unaffected.
- 4 Problem Severity:** Improvement.
- 5 Pervasive Problem:** No.
- 6 Release Bundle:** 89.43.3.0

ID# 365499

IBM System Storage - DS8900F Disk Storage

89.40.x.x Release Notes Cumulative Summary v4.1

Resiliency improvement for SRC BE82CD7x

- 1 Problem Description:** 1 of 2 midplane VPD modules could not be read.
- 2 Potential Impact of Problem:** Single point of repair
- 3 Environment:** All R9
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** Yes
- 6 Release Bundle:** 89.43.3.0

ID# 371036

Pick up new HMC base

- 1 Problem Description:** Pick up new HMC base for security improvements.
- 2 Potential Impact of Problem:** N/A
- 3 Environment:** All R9
- 4 Problem Severity:** Improvement.
- 5 Pervasive Problem:** No.
- 6 Release Bundle:** 89.43.3.0

ID# 371766

Increase LPAR JVM heap size

- 1 Problem Description:** Increase LPAR Java memory from 512m to 1g for ESSNI.
- 2 Potential Impact of Problem:** Warmstart
- 3 Environment:** All
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.42.18.0

ID# 368490

Mapping for PPRC connections to DS8A00 Host Adapters

- 1 Problem Description:** Provide capability to create PPRC paths to DS8A00 Host Adapters in physical slots 3 and 6
- 2 Potential Impact of Problem:** PPRC path compatibility
- 3 Environment:** DS8880 or DS8900F connecting to DS8A00
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 363545

New IbmAPKI Certificate

- 1 Problem Description:** Add new IbmAPKI certificate for Assist OnSite (AOS)
- 2 Potential Impact of Problem:** None
- 3 Environment:** All
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.41.22.0

ID# 363741

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Suppress link down notifications for zHyperLinks

- 1 Problem Description:** Reduce nuisance SRC BE3A290D zHyperLink notifications for external link down events.
- 2 Potential Impact of Problem:** None
- 3 Environment:** Systems using zHyperLink
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 351153

Throttle PPRC initial copy

- 1 Problem Description:** PPRC initial copy can cause host impact if too much copying is initiated in parallel. This change will limit the number of empty tracks that can be transferred in parallel.
- 2 Potential Impact of Problem:** Degraded performance
- 3 Environment:** Systems using PPRC
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359018

Reduction of Host Adapter-triggered warmstarts

- 1 Problem Description:** Design change to handle common recoverable errors without invoking warmstart.
- 2 Potential Impact of Problem:** None
- 3 Environment:** Systems with 32Gb Host Adapters
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 359819

Disable weak cipher suites

- 1 Problem Description:** Security scans complain about the presence of weak ciphers.
- 2 Potential Impact of Problem:** None
- 3 Environment:** All DS8900F
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360399

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EasyTier enhancement

- 1 Problem Description:** Additional changes to treat volume unmap activity separately, so as not to appear as a bandwidth spike.
- 2 Potential Impact of Problem:** Degraded performance
- 3 Environment:** All DS8900F
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360460

Safeguarded Recovery performance enhancements

- 1 Problem Description:** None
- 2 Potential Impact of Problem:** None
- 3 Environment:** DS8900F and Safeguarded Copy
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 360744

Improve zHyperLink representation in DS GUI

- 1 Problem Description:** zHyperlink port information can be confusing.
- 2 Potential Impact of Problem:** None
- 3 Environment:** All DS8900F using zHyperLink
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 362213

Remove Medallia survey function

- 1 Problem Description:** Survey is deprecated.
- 2 Potential Impact of Problem:** None
- 3 Environment:** All DS8900F
- 4 Problem Severity:** Improvement
- 5 Pervasive Problem:** No
- 6 Release Bundle:** 89.40.83.0

ID# 363323

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