IBM System Storage - DS8880 Disk Storage
Microcode Bundle 88.54.37.0 Release Note Information

Release Date: November 21, 2019

VRMF Level Data Results:

<table>
<thead>
<tr>
<th>VRMF level From:</th>
<th>88.54.31.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRMF Level To:</td>
<td>88.54.37.0</td>
</tr>
<tr>
<td>Report for:</td>
<td>All DS8880</td>
</tr>
</tbody>
</table>

Code Bundle Contents

<table>
<thead>
<tr>
<th>DS8880 Code Bundle Level</th>
<th>SEA or LMC Version:</th>
<th>DSCLI Client</th>
<th>Heat Map Transfer Utility</th>
<th>Storage Manager</th>
<th>Copy Services Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.54.37.0</td>
<td>7.8.54.91</td>
<td>7.8.54.77</td>
<td>7.8.54.77</td>
<td>5.8.54.1041</td>
<td>6.2.6</td>
</tr>
</tbody>
</table>

Overview of new features and functions supported by this release

At a glance:

- Code fixes

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:

<table>
<thead>
<tr>
<th></th>
<th>High Impact</th>
<th>Moderate</th>
<th>Service</th>
<th>Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>- Acute: Irrecoverable error with potential loss of data.  &lt;br&gt; - Serious: Irrecoverable error with potential loss of access to data, or critical function.</td>
<td>- A function not operational and/or performance might be degraded.</td>
<td>- A recoverable error (no impact) and service improvements.</td>
<td>- Improvement changes for better Usability and Serviceability.</td>
</tr>
<tr>
<td>2</td>
<td>High Impact</td>
<td>Moderate</td>
<td>Service</td>
<td>Improvements</td>
</tr>
</tbody>
</table>

HIPER: High Impact problem that is Pervasive: 3 or more occurrences
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**Acute: An irrecoverable error with potential loss of data.**

**Data miscompare on SafeGuarded Copy recovery volume**
1. **Problem Description:** Track Bitmap and Recovery Bitmap were out of sync during a host write to the recovery volume. This caused inconsistent data on the recovery volume, making it unusable.
2. **Potential Impact of Problem:** Data miscompare
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No
   ID# 346873

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

**HIPER Start Secondary fails with MTIR**
1. **Problem Description:** Unintentional Multi-Target Incremental Resync pairs can be created that point to themselves. Exposure exists in systems running on R8.5 bundles. Can cause HyperSwap failure. Removal of these pair relations requires warmstart.
2. **Potential Impact of Problem:** HyperSwap failure
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
   ID# 345590

**HIPER Unable to IPL from SafeGuarded Copy recovery volume**
1. **Problem Description:** When using a Task Control Block with two Cache Track Requests to read a track on the recovery volume, the second access may be discarded.
2. **Potential Impact of Problem:** IPL failure
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
   ID# 346511

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

**Preserve Mirror FlashCopy suspend**
1. **Problem Description:** PMFLC suspended because of a Track Format Descriptor mismatch on the target. Systems running 88.54.31.0 are exposed.
2. **Potential Impact of Problem:** PMFLC suspend.
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes
   ID# 346053
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Service: A recoverable error, Service improvements.

ODD dump failed to complete
1. Problem Description: Cache Directory Control Block lock contention while processing an ODD Dump. The ODD dump being processed was not completed.
3. Problem Severity: Service
4. Pervasive Problem: No
ID# 341027

HMC services slow to respond
1. Problem Description: ESSNI threads consuming 100% CPU on HMCs running 88.54.31.0.
2. Potential Impact of Problem: HMC unresponsive
3. Problem Severity: Service
4. Pervasive Problem: No
ID# 343933

FlashCopy onto GM returns incorrect status
1. Problem Description: Attempt to establish an unsupported Flash Copy relation onto Global Mirror failed as expected, but the operation reported good status.
2. Potential Impact of Problem: Incorrect status
3. Problem Severity: Service
4. Pervasive Problem: No
ID# 345867

Improvements: Improvements for better usability

None.
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