IBM System Storage - DS8880 Disk Storage
Microcode Bundle 88.59.28.0 Release Note Information

Release Date: April 7, 2022

VRMF Level Data Results:

<table>
<thead>
<tr>
<th>VRMF level From:</th>
<th>88.59.21.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRMF Level To:</td>
<td>88.59.28.0</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>88.59.28.0</td>
<td>7.8.59.88</td>
<td>7.8.59.64</td>
<td>7.8.59.64</td>
<td>5.8.59.1034</td>
<td>6.3.0</td>
</tr>
</tbody>
</table>

Overview of new features and functions supported by this release

At a glance:

- Transparent Cloud Tiering (TCT) 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.</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>Serious: Irrecoverable error with potential loss of access to data, or critical function.</td>
<td></td>
<td></td>
<td></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.**

**TCT migration to cloud may fail silently**
1. **Problem Description:** Cloud migration over a degraded network connection, may expose a timing window where the object was not migrated, but the operation completed with good status.
2. **Potential Impact of Problem:** loss of data
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No
   ID# 356928

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

**Repeated 0x7410 MLE and dual reboot during TCT recall or restore**
1. **Problem Description:** Transparent Cloud Tiering recall or restore of datasets from TS7700, to volumes in a PPRC relationship, may encounter repeated warmstarts, leading to dual-cluster IML.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No
   ID# 357237

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

**0x4143 MLE during TCT recall or restore**
1. **Problem Description:** When performing Transparent Cloud Tiering recall or restore, Global Mirror collisions are not handled properly.
2. **Potential Impact of Problem:** Warmstart
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No
   ID# 357240

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

None.

**Improvements: Improvements for better usability**

None.
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