IBM System Storage - DS8880 Disk Storage
Microcode Bundle 88.31.55.0 Release Note Information v1

Release Date: July 19, 2018

VRMF Level Data Results:

| VRMF level From: | 88.31.46.0 |
| VRMF Level To:   | 88.31.55.0 |
| Report for:      | All DS8880 |

Code Bundle Contents

<table>
<thead>
<tr>
<th>DS8880 Code 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>88.31.55.0</td>
<td>7.8.31.147</td>
<td>7.8.40.180</td>
<td>7.8.31.147</td>
<td>5.8.31.1062</td>
<td>6.2.1</td>
</tr>
</tbody>
</table>

Overview of new features and functions supported by this release

At a glance:
- Code fixes and enhancements

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>
</table>
| 1 | - Acute: An irrecoverable error with potential loss of data.  
   | - Serious: An irrecoverable error with potential loss of access to data. | - A function not operational and/or performance might be degraded. | - A recoverable error (no impact) and service improvements. | - Improvement changes for better Usability and Serviceability. |
| 2 |            |          |         |              |
| 3 |            |          |         |              |

HIPER: High Impact problem that is Pervasive: 3 or more occurrences
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Acute: An irrecoverable error with potential loss of data.
None.

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

0x2562 MLE / 0x11B6 MLE
1. Problem Description: Inconsistent Device Adapter task pointers resulted in multiple Microcode Logic Errors.
2. Potential Impact of Problem: Loss of Access
3. Problem Severity: High Impact
4. Pervasive Problem: No
ID#: 334675

Repeated 0x7F31 MLEs
1. Problem Description: When creating a forward cascading FlashCopy relationship, system encountered repeated MLEs accessing some tracks in the B copy until the B -> C copy was complete
2. Potential Impact of Problem: loss of access
3. Problem Severity: High Impact
4. Pervasive Problem: No
ID#: 336893

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

0x2562 MLE / 0x11B6 MLE
1. Problem Description: Inconsistent Device Adapter task pointers resulted in multiple Microcode Logic Errors.
2. Potential Impact of Problem: Loss of Access
3. Problem Severity: High Impact
4. Pervasive Problem: No
ID#: 334675

Higher response times after CDA to 88.24.6.0 or later
1. Problem Description: Excessive cache is being allocated to sequential workloads causing increased cache demote of random tracks.
2. Potential Impact of Problem: degraded performance
3. Problem Severity: Moderate
4. Pervasive Problem: Yes
ID#: 335470
CMUN80293E creating IPSEC connection
1. **Problem Description:** Code could not determine that IPSEC service was running because an OS change renamed the .pid file
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No
ID#: 336684

**Improvements: Improvements for better usability**

None.
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