IBM System Storage - DS8880 Disk Storage
Microcode Bundle 88.52.23.1 Release Note Information v1.1

Release Date: June 25, 2019

VRMF Level Data Results:

| VRMF level From: | 88.52.23.0 |
| VRMF Level To:   | 88.52.23.1 |
| Report for:      | All DS8880 |

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>88.52.23.1</td>
<td>7.8.52.77</td>
<td>7.8.52.76</td>
<td>7.8.52.76</td>
<td>5.8.52.1031</td>
<td>6.2.4</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: An irrecoverable error with potential loss of data.</td>
<td>-</td>
<td>-</td>
<td>Improvement changes for better Usability and Serviceability.</td>
</tr>
<tr>
<td></td>
<td>Serious: An irrecoverable error with potential loss of access to data.</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A function not operational and/or performance might be degraded.</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>A recoverable error (no impact) and service improvements.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Serious: An irrecoverable error with potential loss of access to data.
None.

Moderate: A system path is not operational and/or performance may be degraded.
PPRC write timeouts
1. Problem Description: Systems running 88.52.21.0 or 88.52.23.0 are exposed to task timeouts and PPRC suspend when using Torn Page function in Metro Global Mirror environment.
2. Potential Impact of Problem: PPRC Suspend
3. Problem Severity: Moderate
4. Pervasive Problem: Yes
ID# 343216

Service: A recoverable error, Service improvements.
None.

Improvements: Improvements for better usability
None.
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