IBM System Storage - DS8880 Disk Storage
Microcode Bundle 88.11.21.0 Release Note Information v1.1

Release Date: August 12, 2016

VRMF Level Data Results:

| VRMF level From: | 88.10.112.0 |
| VRMF Level To:   | 88.11.21.0  |
| Report for:      | All DS8880 |

Code Bundle Contents

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<th>DS8880 Code Bundle Level</th>
<th>SEA or LMC Version</th>
<th>DS CLI Client</th>
<th>STAT Tool</th>
<th>Heat Map Transfer Utility</th>
<th>Storage Manager</th>
<th>Copy Services Manager</th>
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<td>88.11.21.0</td>
<td>7.8.11.49</td>
<td>7.8.11.49</td>
<td>7.8.11.49</td>
<td>7.8.11.49</td>
<td>5.8.11.1024</td>
<td>6.1.3</td>
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Overview of new features and functions supported by this release on DS8884 283x model 980, DS8886 283x model 981, and DS8888 283x model 982

At a glance:
- Remaining R8.1 functional restrictions are lifted.
  - Full support for Thin Provisioned ESE CKD and FB volumes
  - Full Easy Tier support for small extents
- HPFE support for 800 GB Flash Cards
- Support CSM query of ERProduct switches and CS pokeables
- Support for model conversion from DS8870 to DS8886 with 3-phase power

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:

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<th>High Impact</th>
<th>Moderate</th>
<th>Service</th>
<th>Improvements</th>
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<td>- Acute: An 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>
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</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.

**HIPER IOS078I on multiple paths**
1. **Problem Description:** A sequential track had 'Invalidate Metadata' flag set, so was skipped during demote scan. But it's timestamp was not changed, so it remained the oldest track.
2. **Potential Impact of Problem:** loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
ID#: 319030

**Unit check returns invalid SCSI sense data**
1. **Problem Description:** Unit check sense data for LRC and Sequence Number errors is all zeros
2. **Potential Impact of Problem:** May cause unexpected host errors
3. **Problem Severity:** High Impact
4. **Pervasive Problem:** No
ID#: 319253

**HIPER 0x1045 MLE**
1. **Problem Description:** During a single track stage request, the I/O bounds for a larger dataset were used. This caused cache to stage past the end of a track.
2. **Potential Impact of Problem:** Warmstart, possible loss of access
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
ID#: 319628

**HIPER CMUN00023E copy services license error**
1. **Problem Description:** Error is caused by Software PID configuration missing from manufacturing
2. **Potential Impact of Problem:** Unable to use copy services functions
3. **Problem Severity:** HIPER
4. **Pervasive Problem:** Yes
ID#: 320054, 320101
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Moderate: A system path is not operational and/or performance may be degraded.

Performance impact during Flash Card firmware update
1. **Problem Description:** Flash Card failed while downloading firmware, causing command timeouts. This impacted Flashcopy synchronous destage.
2. **Potential Impact of Problem:** degraded performance, warmstart
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** No
   ID#: 318889

Repeated 0x01B7-506A MLE
1. **Problem Description:** Copy services lock contention timeout on a lock that did not need to be active.
2. **Potential Impact of Problem:** Warmstart
3. **Problem Severity:** Moderate
4. **Pervasive Problem:** Yes
   ID#: 319267

Service: A recoverable error, Service improvements.

DS GUI 'Create Pool' screen cut off in Firefox
1. **Problem Description:** Text at the bottom of the screen is cut off. The screen is scrollable, but there is no scroll bar.
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No
   ID#: 317995

FRU list incorrect for SRC=BE197073
1. **Problem Description:** Symbolic procedure calls RPC C2 port T206, should be port T205.
2. **Potential Impact of Problem:** Extended service action
3. **Problem Severity:** Service
4. **Pervasive Problem:** No
   ID#: 318575

Unable to resume LPAR after repair
1. **Problem Description:** LPAR failed during CDA. After repair, LPAR would not resume to dual.
2. **Potential Impact of Problem:** Extended service window
3. **Problem Severity:** Service
4. **Pervasive Problem:** No
   ID#: 318602
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DS GUI does not display the server diagram
1. **Problem Description:** DS GUI null pointer exception while querying hardware in one or more I/O bays that contain no Host or Device Adapters
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No
ID#: 319281

SRC=BE190009 displays incorrect text
1. **Problem Description:** HMC text description does not use same terminology as Knowledge Center.
2. **Potential Impact of Problem:** none
3. **Problem Severity:** Service
4. **Pervasive Problem:** No
ID#: 319337

False SRC=BE340006 Cabling error detected
1. **Problem Description:** Plug order lists for Rack 5 enclosures G18 and below.
2. **Potential Impact of Problem:** Extended service action
3. **Problem Severity:** Service
4. **Pervasive Problem:** No
ID#: 319820

**Improvements: Improvements for better usability**
None.
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