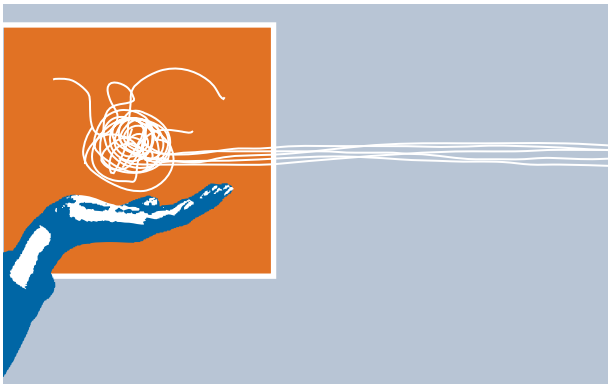

PROMENTUM®

CHASSIS MANAGEMENT MODULE

GENERATION 7
SPECIFICATION UPDATE

MPCMM0001
MPCMM0002

RadiSys
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007-03246-0002 • April 2010

Release History

Date	Revision	Description
February 2007	001	Version 7.1.1.111 of the CMM firmware
June 2007	002	Version 7.1.2.123 of the CMM firmware
May 2008	-0000	Document and part number converted to RadiSys format
August 2009	-0001	See items 5 through 9 in the Specification Changes table for change information
April 2010	-0002	See items 6 and 7 in the Specification Changes table for change information

Where to get more product information

Visit the RadiSys web site at www.radisys.com for product information and other resources. Downloads (manuals, release notes, software, etc.) are available at www.radisys.com/downloads.

Contents

Preface

This document is an update to the specifications contained in the Affected Documents/Related Documents table below. This document is a compilation of device and documentation errata, specification clarifications and changes. It is intended for hardware system manufacturers and software developers of applications, operating systems, or tools.

Information types defined in Nomenclature are consolidated into the specification update and are no longer published in other documents.

This document may also contain information that was not previously published.

Affected Documents and Related Documents

Title	Order
Promentum® MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification	007-03245-0002
Promentum® MPCMM0001 Chassis Management Module Hardware Technical Product Specification	007-03233-0000
Promentum® MPCMM0002 Chassis Management Module Hardware Technical Product Specification	007-03227-0000
Promentum® SHM/OAM API Reference for CMMs	007-03265-0001

Nomenclature

Release Notes is a list of changes and feature additions made to firmware and fixes to past items in the release.

Errata are design defects or errors. These may cause the behavior of the Promentum MPCMM0001 Chassis Management Module or Promentum MPCMM0002 Chassis Management Module to deviate from published specifications. Hardware and software designed to be used with any given stepping must assume that all errata documented for that stepping are present on all devices.

Specification Changes are modifications to the current published specifications. These changes will be incorporated in any new release of the specification.

Specification Clarifications describe a specification in greater detail or further highlight a specification's impact to a complex design situation. These clarifications will be incorporated in any new release of the specification.

Documentation Changes include typos, errors, or omissions from the current published specification. These will be incorporated in any new release of the specification.

Note: Errata remain in the specification update throughout the product's lifecycle, or until a particular stepping is no longer commercially available. Under these circumstances, errata removed from the specification update are archived and available upon request.

Specification changes, specification clarifications and documentation changes are removed from the specification update when the appropriate changes are made to the appropriate product specification or user documentation (datasheets, manuals, etc.).

Identification Information

Firmware Version

Firmware version currently running on the CMM can be determined by issuing the CLI command:

```
cmmget -l cmm -d version
```

The version returned will be a string in the following format:

Version: [Major Build Number].[Minor Build Number].[Release Number].[Build Number]

For example:

```
Version: 7.1.2.123
```

Release Notes

Version 7.1.2.123

About this release

- June 29, 2007
- PreBoot Loader v1.01
- Linux* kernel, modules, system tools and libraries: 2.6.13 build 132
- CMM software version: 7.1.2.123

Special Notes and Instructions

Contents and structure of 7.1.2.123 Release Package

CD-1: User's Documentation and Upgrade packages:

File or directory	Description
license.txt	The license agreement that applies to entire contents of this CD
Manuals/	Directory with a set of user's manuals: • Software Technical Product Specification (TPS) (MPCMM0001_SW_TPS_v7_1.pdf) • CLI Reference Manual (MPCMM0001_RFM_CLI_v7_1.pdf) • SHM/OAM API Reference Manual (MPCMM0001_RFM_SHM_API_v7_1.pdf) • Compatibility Report (MPCMM000x_Compatibility_Report_7_1_2.pdf)
Upgrade/	Tools and images required for the upgrade to 7.1.2.123 version
src/	Source code required to recompile client libraries. Note: Some additional open source components obtained from internet are also required. Refer to README document located in this directory for more information on how to use it.

The content of CD-1 is packed in self-unpacking file **MPCMM000x_7.1.2.123-CD1.sh**. After executing the file, one is required to read and accept the license agreement before continuing the installation.

CD-3: Source code required by GPL and eCos licenses

File or directory	Description
license.txt	The license agreement that applies to entire contents of this CD
src/	This is the third party source code used to compile some of binary components provided on CD-1. This source code do not need to be recompiled by the user, however RadiSys is obligated by original licenses to make this source code available together with binaries. This CD includes source code for: Linux kernel, system tools, and libraries (GPL/LGPL license). RedBoot* (eCos license)

The content of CD-3 is packed in self-unpacking file **MPCMM000x_7.1.2.123-CD3.sh**. After executing the file, one is required to read and accept the license agreement before continuing the installation.

Upgrade from 5.2.x release to 7.1.2.123 release

Note: Upgrade from 5.2.8 is supported via standard upgrade procedure ('cmmset -d update')

Update of Shelf FRU

Software version 7.1 requires some additional information to be stored inside the shelf FRU (this information was not needed for version 5.2). If your chassis was used with a CMM board running 5.2 software, an update of the shelf FRU is required before updating the software on the CMM board.

Note: You need to perform this step once for each chassis - you do not need to repeat this step on each CMM.

To perform the required update of the shelf FRU, perform the following procedure:

1. Use the CMM board running version 5.2 or 6.1 of CMM software in the chassis where the shelf FRU needs to be updated
2. Create a temporary directory in /usr/local/cmm/temp and download the following files into that directory (using ftp or nfs):

   ```
   "<CD-1>/upgrade/5.2_to_7.1/fruUpdate_5.2.zip
   ```
3. Enter the directory with the downloaded files and unzip them:

   ```
   /usr/local/cmm/bin/unzip fruUpdate_5.2.zip
   cd fruUpdate
   ```
4. If you need to keep your original image of shelf FRU, then execute:

   ```
   ./fruUpdate -d <file> 2000 -l chassis
   ```

   (<file> is the name of file, where the image read from the shelf FRU will be stored)
5. Update shelf FRU by executing command:

   ```
   export LD_LIBRARY_PATH=. ; ./fruUpdate -u <cfg file>
   ```

   <cfg file> depends on your chassis type and can be for example one of following:

   ```
   "MPCHC001.cfg
   "SCHROFF11592-459.cfg
   ```

Software Update on the CMM Board

Before you start updating the software stored on the flash, make sure that the shelf FRU has already been updated, following the procedure defined in the previous section.

To update the software on the CMM board, follow this non-standard procedure:

1. Create a temporary directory in /usr/local/cmm/temp and download the following files into that directory (using ftp or nfs):

   ```
   "<CD-1>/upgrade/5.2_to_7.1/flash_update_5.2_7.1.sh
   "<CD-1>/upgrade/5.2_to_7.1/flash_update_5.2_7.1.zip
   ```
2. Make sure that flash_update_5.2_7.1.sh file is executable. Attribute 'x' may be disabled during file transfer and you may need to correct it using 'chmod' command.
3. Enter the directory where files were downloaded, and execute the script:

   ```
   ./flash_update_5.2_7.1.sh
   ```
4. After reboot, the CMM will start with the new software. If you need to use static IP addresses and they are not yet stored inside shelf FRU, you will need to update IP addresses in the file /etc/cmm/networks.conf.

Upgrade from 6.1.x release to 7.1.2.123 release

Note: Upgrade from 6.1.5 is supported via standard upgrade procedure ('cmmset -d update')

1. Update the Shelf FRU as described earlier for 5.2.x release
2. Update the software on CMM Board as described earlier for 5.2.x release

Upgrade from 7.1.0.x release to 7.1.2.123 release

Note: The upgrade procedure from firmware version 7.1 and 7.1.1 must be preceded by the CDM format conversion (see TPS section 32.4).

Due to the modified default setting of Ethernet ports direction, the engineering variant of the upgrade procedure (see below) is recommended when upgrading to 7.1.2.123.

Standard Upgrade Procedure from 7.1.0.x release to 7.1.2.123 release

The standard upgrade procedure (i.e., via CLI command 'cmmset -d update ...') is described in TPS section 32.11. When upgrading via CLI "cmmset -d update" command, CMM firmware is updated, but configuration files and user scripts are left intact. Therefore, we recommend instead the Engineering Upgrade Procedure described in the next section.

Alternatively, if you want to force configuration and script update after Standard Upgrade Procedure, just delete the configuration and/or script files and reboot CMM. The missing files will be restored to 7.1.2 defaults. This is applicable to the following directories:

```
/etc/cmm/*
/etc/cmm/scripts/*
/usr/share/cmm/scripts/*
```

Engineering Variant of Upgrade Procedure from 7.1.0.x release to 7.1.2.123 release

Follow the instructions provided in file CD-1/upgrade/cmm_flash_upgrade.readme. The required upgrade package (cmm_flash_upgrade.tar.gz) is located in the same directory. Upgrade of both CMMs should be performed in parallel or the new configuration will be overwritten during initial replication (CMM with older FW will be Active CMM).

Note that this upgrade procedure does not preserve any part of the configuration. At minimum, you will need to manually restore the IP configuration to get system running after upgrade.

Functional Limitations of this Version

Table 1 lists functional limitations in this version.

Table 1. Functional limitations of this version

Feature	Limitation
Time Synchronization	Time synchronization with an external server (via Network Time Protocol) is not supported in this release
Communication over Shelf FRU	Peer communication over Shelf FRU is disabled due to EEPROM lifetime concerns. When IPMB connectivity is lost, CMMs are not able to retain redundancy.
Security	The following security features are not supported in this release: • License Checker • Authentication Failure sensor will not report authentication failures on CLI interface • Logging of authentication failures via PAM
Application Crash Log	The application crash log is not supported in this release.
FRU Activation Timeout	Value of parameter "Allowance for FRU Activation Readiness" from "Shelf Activation and Power Management Record" provided in default Shelf FRU file does not count time necessary for the CMM to perform full SDR retrieval from the FRU. This may disturb FRU activation order as stored in "Shelf Activation and Power Management Record" and may cause some false "Power Restore Failure" events to be generated. SDR information is required by the CMM to properly continue with FRU activation process (i.e. execute local FRU activation policy scripts and generate SNMP traps to allow remote FRU activation from the System Manager). Typical time required by the CMM for SDR retrieval is 20-40 seconds and depends on number of SDRs.

New Fixes and Features

Below is a list of new features and functionality changes in this release.

- SNMP Agent is supported in this release
- CDM Shelf FRU File ID 111 is supported
- Enabling maximum speed of fans, when status of temperature sensors is unknown (e.g. after Re enumeration process has been started).
- Shelf Manager supports software upgrade from CMM v6.1 product (6.1.5).
- Shelf Manager supports software downgrade to CMM v6.1 product.
- Shelf Manager supports software upgrade from CMM v5.2 product (5.2.8).
- Shelf Manager supports software downgrade to CMM v5.2 product.
- Reduced number of events generated to SEL when OOS Peer unsuccessfully attempts to regain IP connectivity with Active CMM

Below is a list of issues that are **fixed** in this release:

- Active CMM in Rittal chassis is rebooting after working for some time (few minutes)
- eth1:1 interface disabled
- sby-CMM stop at M-3
- CLI command cmmget -l cmm:0 -t fru -d boarddescription does not work
- Target fru is not working for cmm:0 location
- Reading "Maximum Power Capability Sensor" for KCT gets invalid result
- in 5.2 compatibility mode, Filter tray HealthLED should be presented as cmm:led3
- IPMI channel number 0xE should be supported
- CMM can not control fan speed
- incorrect CLI output of ListDataItems for chassis with subfrus
- disk usage in /etc/cmm partition grows
- 'LISM' string is found in BIST events
- After some time, IPMB bus is permanently disabled on standby CMM making the communication between CMMs error prone
- CMM cannot detect the recovery of communication lost
- FRU info output is not correct
- HPI plug-in should be compiled / worked on 64bit OS
- Major LED lit while there is no error
- Sensor name "[RESERVED]" in M0->M1 CMM board transition
- Command results different between CLI and SNMP
- Cannot set compatibility mode
- OAM MIB contents not expected
- Can not read statistics info by using SNMP
- The behavior of RMCP command Get Channel ACCESS
- Internal Error when Reading ZX600 hotswap sensor
- Act-CMM suddenly change to sby after sby reboot
- sby-CMM reboot not completed
- Rittal updated its product names

- Cannot read ObjectID related feed using SNMP
- Sensor behavior of SBC is different between R52 and R71
- Cannot read airflterruntimelimit via SNMP
- Cannot read ObjectID related feed using SNMP
- FRU ID not as expected
- Cannot control criticalled
- WDT cannot be worked on non intelligent FRU
- FAN cannot be controlled
- Standby cmm crashes when active removed without deactivation sequence
- CMM does not send SNMPTrap for unrecognized sensor
- Failover does not occur upon CMM temperature event
- RTMs and AMCs never reach M-state 4
- CMM doesn't sync the status
- The location of "airfilterruntimelimit" is invalid
- Some BIST events are not generated
- User account gets corrupted when created with invalid password
- CMM software is incorrectly handling spaces in password

The following issues reported in previous releases are reclassified as non-bugs:

- Sometimes an event from an intelligent FRU is stored twice or more in SEL
  REASON: Regenerated events have different sequence numbers.
- Redundancy problems during repeated IP reconfiguration
  REASON: Repeated IP reconfigurations do not affect redundancy.

Summary Table of Changes

The following table indicates the errata, specification changes, specification clarifications, or documentation changes that apply to the Promentum MPCMM0001 Chassis Management Module or the Promentum MPCMM0002 Chassis Management Module. RadiSys may fix some of the errata in a future release of the firmware and account for the other outstanding issues through documentation or specification changes as noted.

This table uses the following notations:

Codes Used in Summary Table

Page

(Page):	Page location of item in this document.

Status

Doc:	Document change or update will be implemented.
Fixed:	This erratum has been previously fixed.
No Fix:	There are no plans to fix this erratum.
Plan Fix:	This erratum may be fixed in a future stepping of the product.
EB:	Expected behavior

Row

	Change bar to left of table row indicates this erratum is either new or modified for this release of the CMM firmware.

Errata

No.	Page	Status	Errata
1	18	Plan Fix	“Set Event Receiver" messages are sent to all FRUs after switchover
2	18	Plan Fix	Both CDMs can be corrupted at once
3	18	Plan Fix	Major health LED turned on after Fantray is removed
4	18	Plan Fix	Connecting via eth1:1 after failover takes about 1 min
5	18	Plan Fix	CMM status sensor behavior is inconsistent with Timnath
6	19	Plan Fix	Wrong events are logged from threshold sensors of type 5-8, 10-13, 15-20, 25, 27, 29-37, and 39
7	19	Plan Fix	CMM with IP connection sometimes loses Election
8	19	Plan Fix	AirFilterRunTimeLimit data item is not handled correctly
9	19	Plan Fix	Unable to achieve redundancy with over 2MB of data in script directory
10	19	Plan Fix	Temp Condition sensor event description is incorrect
11	19	Plan Fix	Power allocation event description is incorrect
12	19	Plan Fix	PEF: any Event Data value should be matched when Cmp1, Cmp2, AND Mask = 00h
13	20	Plan Fix	Cannot change Fan Control mode from "emergency shutdown" to "cmm"
14	20	Plan Fix	SNMP Traps are sporadically sent with [UNKNOWN] sensor name
15	20	Plan Fix	"PMS Fault" sensor severity settings don't work correctly
16	20	Plan Fix	"PMS Health" sensor critical event may sporadically be observed after standby CMM reboot
17	20	Plan Fix	Standby CMM persists in election state there is no IP connection to active CMM
18	20	Plan Fix	RMCP authtypes level NONE and PASSWORD is not correctly enabled in case setting from CLI
19	21	Plan Fix	CMM is unmanageable by console if console is set to baud rate 19200/38400/57600
20	21	Plan Fix	Both CMMs crash when ethernet connectivity is disabled and then enabled

Specification Changes

No.	Page	Specification Change
1	22	Explanation of blade power-off command clarified
2	22	New section describing procedure to upgrade to 7.1.2
3	23	“Memory Sensor” table updated
4	23	“System Firmware Progress Sensor” table updated
5	33	CDM conversion change in “Upgrading to Firmware Version 7.1.2”
6	33	Changes to data synchronization requirements
7	34	Changes to Setting a Hostname procedure
8	34	Error Detection section removed
9	34	Added RPC error and return codes table

Specification Clarifications

No.	Page	Specification Clarifications
1	35	CMM Hot Swap LED States table updated
2	35	Downgrade procedure and IP connectivity
3	35	HA Peer Lost sensor
4	35	BIST sensor
5	35	PICMG Hot Swap Sensor table updated

Documentation Changes

No.	Page	Document Revision	Documentation Changes
-	-	-	none

Errata

1. "Set Event Receiver" messages are sent to all FRUs after switchover

Problem: After switchover, all FRUs will rearm Platform Events are sent them to new Active CMM.

Implication: After CMM switchover SEL will contain duplicates of previously reported events.

Workaround: None

Status: Plan Fix

2. Both CDMs can be corrupted at once

Problem: When Shelf Manager executable is terminated during Shelf FRU write, both CDMs might end up containing invalid checksums.

Implication: In rare cases, CMMs will be unable to power-up chassis because correct Shelf FRU information will not be available

Workaround: Avoid IP configuration update during stress testing. This issue should not happen during normal CMM operations.

Status: Plan Fix

3. Major health LED turned on after Fantray is removed

Problem: Sometimes health events affect LED behavior but are not listed by "cmmget -d healthevents" CLI command.

Implication: LED state might be inconsistent with "cmmget -d healthevents" output

Workaround: None

Status: Plan Fix

4. Connecting via eth1:1 after failover takes about 1 min

Problem: After failover, it takes up to 1 minute to connect to new Active CMM

Implication: There might be a delay when remotely connecting to CMM via eth1:1 interface

Workaround: None

Status: Plan Fix

5. CMM status sensor behavior is inconsistent with Timnath

Problem: Event descriptions from CMM status sensor are different than in 6.X CMM FW

Implication: SEL events descriptions differ from Timnath output

Workaround: Do not rely on string-based sensor state verification

Status: Plan Fix

6. Wrong events are logged from threshold sensors of type 5-8, 10-13, 15-20, 25, 27, 29-37, and 39

Problem: Events from sensors with Reading Type 1 (threshold) do not have uniform strings in SEL, they vary depending on sensor type.

Implication: Events in SEL from some threshold sensors might be different than in Timnath

Workaround: None

Status: Plan Fix

7. CMM with IP connection sometimes loses Election

Problem: IP connectivity is not checked when determining Election winner

Implication: When CMM without IP connection loses Election, chassis management functions are not accessible remotely

Workaround: Perform manual failover when Standby CMM has IP connection

Status: Plan Fix

8. AirFilterRunTimeLimit data item is not handled correctly

Problem: The value set is stored in CMM and replicated, but SDRs and configuration files are not updated.

Implication: Limit is not persistent after simultaneous reboot of both CMMs.

Workaround: None

Status: Plan Fix

9. Unable to achieve redundancy with over 2MB of data in script directory

Problem: When /usr/share/cmm/scripts directory contains over 2MB of data, Standby CMM crashes during initial replication

Workaround: Keep script directory size under 2MB.

Status: Plan Fix

10. Temp Condition sensor event description is incorrect

Problem: Event description is "The current value is Normal cooling condition" instead of expected "The current value is Normal temperature condition"

Workaround: None

Status: Plan Fix

11. Power allocation event description is incorrect

Problem: Event description is "Power allocation completed for FRU 9Ah Device ID 0: Assertion, Event Code : 0x1241" instead of expected "Power allocation completed; FRU HW address 9Ah. FRU Device ID 0: Assertion, Event Code : 0x1241"

Workaround: None

Status: Plan Fix

12. PEF: any Event Data value should be matched when Cmp1, Cmp2, AND Mask = 00h

Problem: PEF Filter is incorrectly working when Data Compare 1, Data Compare 2 and Mask values are all set to zero

Workaround: Do not use zero values as in the scenario above

Status: Plan Fix

13. Cannot change Fan Control mode from "emergency shutdown" to "cmm"

Problem: Dutch Harbor Fantray firmware does not correctly support "Set Fan Level command" when in Emergency Shut Down mode.

Implication: When fantray on Dutch Harbor chassis is in Emergency Shutdown mode, CLI command "cmmset -l fantray1 -d control -v cmm" returns error

Workaround: Issue "cmmset -l fantray1 -d poweroff" and then "cmmset -l fantray1 -d poweron" to restore "cmm" control mode

Status: Plan Fix

14. SNMP Traps are sporadically sent with [UNKNOWN] sensor name

Problem: On rare occasions, SDR read operation fails for some local CMM sensor. As a consequence, SNMP traps are generated with "UNKNOWN" sensor name.

Workaround: None

Status: Plan Fix

15. "PMS Fault" sensor severity settings don't work correctly

Problem: Severity of "PMS Fault" sensor health events is not determined by the configured settings (pm.conf). Health events always are of minor severity.

Workaround: None

Status: Plan Fix

16. "PMS Health" sensor critical event may sporadically be observed after standby CMM reboot

Problem: Critical "PMS Health" sensor health event may be asserted after standby CMM reboot although successful recovery of failed processes was completed. This behavior is due to the fact that the state of "PMS Health" sensor is not preserved across reboots.

Workaround: Reboot standby CMM to clear the critical health event.

Status: Plan Fix

17. Standby CMM persists in election state there is no IP connection to active CMM

Problem: Standby CMM persists in election state when eth cables removed from active or the eth port direction setting prevents IP connection.

Workaround: Keep IP connection between active and standby CMMs.

Status: Plan Fix

18. RMCP authtypes level NONE and PASSWORD is not correctly enabled in case setting from CLI

Problem: RMCP authtypes level NONE and PASSWORD is not correctly enabled in case setting from CLI. Changes are not saved in rmcp.conf file, so after reboot any changes are lost.

Workaround: Store modified settings in rmcp.conf.

Status: Plan Fix

19. CMM is unmanageable by console if console is set to baud rate 19200/38400/57600

Problem: CMM is unmanageable by console if console is set to baud rate 19200/38400/57600

Workaround: Do not change default console baud rate setting.

Status: Plan Fix

20. Both CMMs crash when ethernet connectivity is disabled and then enabled

Problem: This issue can be observed in the following scenario:
1. Establish fully redundant configuration
2. Set snmptrapaddress to unreachable
3. Remove eth0 and eth1 from active cmm
4. Verfiy that active cmm becomes ActiveNoStandby
5. Verify that standby stays in election for all the time
6. Reboot standby cmm
7. Wait for standby cmm to enter election
8. Reboot active cmm
9. Verify that cmm that remained in election becomes ActiveNoStandby
10. Wait for previous active to boot
11. Verify that newly booted cmm stays in election
12. Insert eth0 and eth1 cables to cmm

Problem: Do not remove/insert Ethernet cables while rebooting CMMs.

Status: Plan Fix

Specification Changes

1. Explanation of blade power-off command clarified

Issue: Command description in section 22.3.1 now states: “This command sends the PICMG 3.0 Set Fru Activation(Deactivate FRU).”

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section 22.3.1.

2. New section describing procedure to upgrade to 7.1.2

Section 32.4 text now states:

The upgrade procedure from firmware version 7.1 and 7.1.1 must be preceded by the CDM format conversion. CDM version 171 distributed together with Firmware 7.1 and 7.1.1 must be converted to CDM version 111 used in Firmware 7.1.2. Supplementary script `convert171to111` should be used to perform CDM conversion from version 171 to 111. The script is part of the fruUpdate utility package. Usage is:

```
convert171to111 -d <passwd>
```

where `<passwd>` should be replaced by the root user password.

The following steps must be executed when upgrading a system to Firmware 7.1.2:

1) The `fruUpdate` package must be installed on the active CMM

2) On the active CMM, run the `convert171to111` script. The `fruUpdate` utility program must be present in the current directory.

3) Upgrade firmware on the standby CMM using the command:

```
cmmset -d update –v <image>
```

4) Perform switchover using the command:

```
cmmset -d switchover -v manual
```

5) Upgrade the firmware on the standby CMM using the command:

```
cmmset -d update –v <image>
```

6) At the same time, reboot both CMM blades using the command:

```
reboot
```

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section 32.4.

3. "Memory Sensor" table updated

Issue: Event severity for "Correctable ECC/Other correctable memory error%ED3: Assertion" changed to OK.

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, appendix C, table 86.

4. "System Firmware Progress Sensor" table updated

Issue: Updates were made in table 89. The affected rows are indicated by revision marks in the table below.

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress						System Firmware Error (POST Error)	-	-	-	-
	System Firmware Error (POST Error)									
	0Fh	00h	00h		0250	- Unspecified (A)	System Firmware Error: Unspecified error occurred: Assertion	Major	-	Yes
						- Unspecified (D)	System Firmware Error: Unspecified error occurred: Deassertion	-	OK	Yes
			01h		0251	- No system memory physically installed (A)	System Firmware Error: No system memory installed: Assertion	Major	-	Yes
						- No system mem phys installed (D)	System Firmware Error: No system memory installed: Deassertion	-	OK	Yes
			02h		0252	- No usable sys mem - unrec failure (A)	System Firmware Error: No usable system memory found: Assertion	Major	-	Yes
						- No usable sys mem - unrec failure (D)	System Firmware Error: No usable system memory found: Deassertion	-	OK	Yes
			03h		0253	- Unrecov HD/ATAPI/IDE dev failure (A)	System Firmware Error: Unrecoverable hard disk/ATAPI/IDE device: Assertion	Major	-	Yes
						- Unrecov HD/ATAPI/IDE dev failure (D)	System Firmware Error: Unrecoverable hard disk/ATAPI/IDE device: Deassertion	-	OK	Yes
			04h		0254	- Unrecoverable system-board failure (A)	System Firmware Error: Unrecoverable system-board failure: Assertion	Major	-	Yes
						- Unrecoverable system-board failure (D)	System Firmware Error: Unrecoverable system-board failure: Deassertion	-	OK	Yes
			05h		0255	- Unrecoverable diskette subsys failure (A)	System Firmware Error: Unrecoverable diskette subsystem failure: Assertion	Major	-	Yes
						- Unrecoverable diskette subsys failure (D)	System Firmware Error: Unrecoverable diskette subsystem failure: Deassertion	-	-	Yes

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	00h	06h		0256	- Unrecoverable HD controller failure (A)	System Firmware Error: Unrecoverable hard disk controller failure: Assertion	Major	-	Yes
						- Unrecoverable HD controller failure (D)	System Firmware Error: Unrecoverable hard disk controller failure: Deassertion	-	OK	Yes
			07h		0257	- Unrecoverable KB failure (A)	System Firmware Error: Unrecoverable PS/2 or USB keyboard failure: Assertion	Major	-	Yes
						- Unrecoverable KB failure (D)	System Firmware Error: Unrecoverable PS/2 or USB keyboard failure: Deassertion	-	OK	Yes
			08h		0258	- Removable boot media not found (A)	System Firmware Error: Removable boot media not found: Assertion	Major	-	Yes
						- Removable boot media not found (D)	System Firmware Error: Removable boot media not found: Deassertion	-	OK	Yes
			09h		0259	- Unrecoverable video controller failure (A)	System Firmware Error: Unrecoverable video controller failure: Assertion	Major	-	Yes
						- Unrecoverable video controller failure (D)	System Firmware Error: Unrecoverable video controller failure: Deassertion	-	OK	Yes
			0Ah		025A	- No video device detected (A)	System Firmware Error: No video device detected: Assertion	Major	-	Yes
						- No video device detected (D)	System Firmware Error: No video device detected: Deassertion	-	OK	Yes
			0Bh		025B	- FW (BIOS) ROM corruption detected (A)	System Firmware Error: Firmware (BIOS) ROM corruption detected: Assertion	Major	-	Yes
						- FW (BIOS) ROM corruption detected (D)	System Firmware Error: Firmware (BIOS) ROM corruption detected: Deassertion	-	OK	Yes
			0Ch		025C	- CPU voltage mismatch (A)	System Firmware Error: CPU voltage mismatch: Assertion	Major	-	Yes
						- CPU voltage mismatch (D)	System Firmware Error: CPU voltage mismatch: Deassertion	-	OK	Yes
			0Dh		025D	- CPU speed matching failure (A)	System Firmware Error: CPU speed matching failure: Assertion	Major	-	Yes
						- CPU speed matching failure (D)	System Firmware Error: CPU speed matching failure: Deassertion	-	OK	Yes
			0E-98h		-	- Reserved	-	-	-	-

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	00h	99h	99h	0490	System Firmware Error: BIOS Checksum error	System Firmware Error: BIOS checksum error: [Assertion|Deassertion] Event	OK	OK	Yes
			9A-EFh		-	Reserved	-	-	-	-
			F0h	00h	027F	OK to boot	OK to boot: [Assertion|Deassertion] Event	OK	OK	Yes
			F1-FDh		-	Reserved	-	-	-	-
			FEh	00h	0280	System Firmware Error: Timer count read/write error	System Firmware Error: Timer count read/write error: [Assertion|Deassertion] Event	Critical	OK	Yes
				01h	0281	System Firmware Error: CMOS battery error	System Firmware Error: CMOS battery error: [Assertion|Deassertion] Event	Major	OK	Yes
				02h	0282	System Firmware Error: CMOS diagnosis error	System Firmware Error: CMOS diagnosis error: [Assertion|Deassertion] Event	Major	OK	Yes
				03h	0283	System Firmware Error: CMOS checksum error	System Firmware Error: CMOS checksum error: [Assertion|Deassertion] Event	Major	OK	Yes
				04h	0284	System Firmware Error: CMOS memory size error	System Firmware Error: CMOS memory size error: [Assertion|Deassertion] Event	Major	OK	Yes
				05h	0285	System Firmware Error: RAM read/write test error	System Firmware Error: RAM read/write test error: [Assertion|Deassertion] Event	Critical	OK	Yes
				06h	0286	System Firmware Error: CMOS date/time error	System Firmware Error: CMOS date/time error: [Assertion|Deassertion] Event	Major	OK	Yes
				07h	0287	System Firmware Error: Clear CMOS jumper	System Firmware Error: Clear CMOS jumper: [Assertion|Deassertion] Event	OK	OK	Yes
				08h	0288	System Firmware Error: Clear password jumper	System Firmware Error: Clear password jumper: [Assertion|Deassertion] Event	OK	OK	Yes
				09h	0289	System Firmware Error: Manufacturing jumper	System Firmware Error: Manufacturing jumper: [Assertion|Deassertion] Event	OK	OK	Yes
				0Ah	028A	System Firmware Error: Microcontroller in update	System Firmware Error: Microcontroller in update: [Assertion|Deassertion] Event	Major	OK	Yes

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	00h		0Bh	028B	System Firmware Error: Microcontroller response failure	System Firmware Error: Microcontroller response failure: [Assertion|Deassertion] Event	Major	OK	Yes
				0Ch	028C	System Firmware Error: Event Log full	System Firmware Error: Event Log full: [Assertion|Deassertion] Event	OK	OK	Yes
				10h	028D	System Firmware Error: Configuration error on DIMM pair 0	System Firmware Error: Configuration error on DIMM pair 0: [Assertion|Deassertion] Event	OK	OK	Yes
				11h	028E	System Firmware Error: Configuration error on DIMM pair 1	System Firmware Error: Configuration error on DIMM pair 1: [Assertion|Deassertion] Event	OK	OK	Yes
				12h	028F	System Firmware Error: No system memory is physically installed or fails to access any DIMM's SPD data	System Firmware Error: No system memory is physically installed or fails to access any DIMM's SPD data: [Assertion|Deassertion] Event	OK	OK	Yes
			FFh		-	-	-	-	-	-

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	**System Firmware Hang**									
	0Fh	01h	00h		0460	- Unspecified (A)	System Firmware Hang: Unspecified error occurred: Assertion	Major	-	Yes
						- Unspecified (D)	System Firmware Hang: Unspecified error occurred: Deassertion	-	OK	Yes
			01h		0461	- Memory initialization (A)	System Firmware Hang: Memory initialization: Assertion	Major	-	Yes
						- Memory initialization (D)	System Firmware Hang: Memory initialization: Deassertion	-	OK	Yes
			02h		0462	- Hard-disk initialization (A)	System Firmware Hang: Hard disk initialization: Assertion	Major	-	Yes
						- Hard-disk initialization (D)	System Firmware Hang: Hard disk initialization: Deassertion	-	OK	Yes
			03h		0463	- Secondary processor(s) initialization (A)	System Firmware Hang: Secondary processor(s) initialization: Assertion	Major	-	Yes
						- Secondary processor(s) initialization (D)	System Firmware Hang: Secondary processor(s) initialization: Deassertion	-	OK	Yes
			04h		0464	- User authentication (A)	System Firmware Hang: User authentication: Assertion	Major	-	Yes
						- User authentication (D)	System Firmware Hang: User authentication: Deassertion	-	OK	Yes
			05h		0465	- User-initiated system setup (A)	System Firmware Hang: User-initiated system setup: Assertion	Major	-	Yes
						- User-initiated system setup (D)	System Firmware Hang: User-initiated system setup: Deassertion	-	OK	Yes
			06h		0466	- USB resource configuration (A)	System Firmware Hang: USB resource configuration: Assertion	Major	-	Yes
						- USB resource configuration (D)	System Firmware Hang: USB resource configuration: Deassertion	-	OK	Yes
			07h		0467	- PCI resource configuration (A)	System Firmware Hang: PCI resource configuration: Assertion	Major	-	Yes
						- PCI resource configuration (D)	System Firmware Hang: PCI resource configuration: Deassertion	-	OK	Yes

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	01h	08h		0468	- Option ROM initialization (A)	System Firmware Hang: Option ROM initialization: Assertion	Major	-	Yes
						- Option ROM initialization (D)	System Firmware Hang: Option ROM initialization: Deassertion	-	OK	Yes
			09h		0469	- Video initialization (A)	System Firmware Hang: Video initialization: Assertion	Major	-	Yes
						- Video initialization (D)	System Firmware Hang: Video initialization: Deassertion	-	OK	Yes
			0Ah		046A	- Cache initialization (A)	System Firmware Hang: Cache initialization: Assertion	Major	-	Yes
						- Cache initialization (D)	System Firmware Hang: Cache initialization: Deassertion	-	OK	Yes
			0Bh		046B	- SM Bus initialization (A)	System Firmware Hang: SM Bus initialization: Assertion	Major	-	Yes
						- SM Bus initialization (D)	System Firmware Hang: SM Bus initialization: Deassertion	-	OK	Yes
			0Ch		046C	- KB controller init (A)	System Firmware Hang: Keyboard controller initialization: Assertion	Major	-	Yes
						- KB controller init (D)	System Firmware Hang: Keyboard controller initialization: Deassertion	-	OK	Yes
			0Dh		046D	- Embedded controller/ mgmt ctrller init (A)	System Firmware Hang: Embedded/Management controller initialization: Assertion	Major	-	Yes
						- Embedded controller/ mgmt ctrller init (D)	System Firmware Hang: Embedded/Management controller initialization: Deassertion	-	OK	Yes
			0Eh		046E	- Docking station attachment (A)	System Firmware Hang: Docking station attachment: Assertion	Major	-	Yes
						- Docking station attachment (D)	System Firmware Hang: Docking station attachment: Deassertion	-	OK	Yes
			0Fh		046F	- Enabling docking station (A)	System Firmware Hang: Enabling docking station: Assertion	Major	-	Yes
						- Enabling docking station (D)	System Firmware Hang: Enabling docking station: Deassertion	-	OK	Yes

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	01h	10h		0470	- Docking station ejection (A)	System Firmware Hang: Docking station ejection: Assertion	Major	-	Yes
						- Docking station ejection (D)	System Firmware Hang: Docking station ejection: Deassertion	-	OK	Yes
			11h		0471	- Disabling docking station (A)	System Firmware Hang: Disabling docking station: Assertion	Major	-	Yes
						- Disabling docking station (D)	System Firmware Hang: Disabling docking station: Deassertion	-	OK	Yes
			12h		0472	- Calling operating system wake-up vector (A)	System Firmware Hang: Calling OS wake-up vector: Assertion	Major	-	Yes
						- Calling operating system wake-up vector (D)	System Firmware Hang: Calling OS wake-up vector: Deassertion	-	OK	Yes
			13h		0473	- Starting OS boot process (A)	System Firmware Hang: Starting OS boot process: Assertion	Major	-	Yes
						- Starting OS boot process (D)	System Firmware Hang: Starting OS boot process: Deassertion	-	OK	Yes
			14h		0474	- Baseboard/mother board init (A)	System Firmware Hang: Baseboard or motherboard initialization: Assertion	Major	-	Yes
						- Baseboard/mother board init (D)	System Firmware Hang: Baseboard or motherboard initialization: Deassertion	-	OK	Yes
			15h		N/A	- Reserved	-	-	-	-
			16h		0475	- Floppy init (A)	System Firmware Hang: Floppy initialization: Assertion	Major	-	Yes
						- Floppy init (D)	System Firmware Hang: Floppy initialization: Deassertion	-	OK	Yes
			17h		0476	- KB test (A)	System Firmware Hang: Keyboard test: Assertion	Major	-	Yes
						- KB test (D)	System Firmware Hang: Keyboard test: Deassertion	-	OK	Yes
			18h		0477	- Pointing device test (A)	System Firmware Hang: Pointing device test: Assertion	Major	-	Yes
						- Pointing device test (D)	System Firmware Hang: Pointing device test: Deassertion	-	OK	Yes

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	01h	19h		0478	- Primary processor init (A)	System Firmware Hang: Primary processor initialization: Assertion	Major	-	Yes
						- Primary processor init (D)	System Firmware Hang: Primary processor initialization: Deassertion	-	OK	Yes
			1Ah-FFh			- Reserved	-	-	-	-
	System Firmware Progress									
	0Fh	02h	00h		0260	- Unspecified (A)	System Firmware Progress: Unspecified error occurred: Assertion	OK	-	Yes
						- Unspecified (D)	System Firmware Progress: Unspecified error occurred: Deassertion	-	OK	
			01h		0261	- Memory initialization (A)	System Firmware Progress: Memory initialization: Assertion	OK	-	Yes
						- Memory initialization (D)	System Firmware Progress: Memory initialization: Deassertion	-	OK	
			02h		0262	- Hard-disk initialization (A)	System Firmware Progress: Hard disk initialization: Assertion	OK	-	Yes
						- Hard-disk initialization (D)	System Firmware Progress: Hard disk initialization: Deassertion	-	OK	
			03h		0263	- Secondary processor(s) initialization (A)	System Firmware Progress: Secondary processor(s) initialization: Assertion	OK	-	Yes
						- Secondary processor(s) initialization (D)	System Firmware Progress: Secondary processor(s) initialization: Deassertion	-	OK	
			04h		0264	- User authentication (A)	System Firmware Progress: User authentication: Assertion	OK	-	Yes
						- User authentication (D)	System Firmware Progress: User authentication: Deassertion	-	OK	
			05h		0265	- User-initiated system setup (A)	System Firmware Progress: User-initiated system setup: Assertion	OK	-	Yes
						- User-initiated system setup (D)	System Firmware Progress: User-initiated system setup: Deassertion	-	OK	

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	02h	06h		0266	- USB resource configuration (A)	System Firmware Progress: USB resource configuration: Assertion	OK	-	Yes
						- USB resource configuration (D)	System Firmware Progress: USB resource configuration: Deassertion	-	OK	
			07h		0267	- PCI resource configuration (A)	System Firmware Progress: PCI resource configuration: Assertion	OK	-	Yes
						- PCI resource configuration (D)	System Firmware Progress: PCI resource configuration: Deassertion	-	OK	
			08h		0268	- Option ROM initialization (A)	System Firmware Progress: Option ROM initialization: Assertion	OK	-	Yes
						- Option ROM initialization (D)	System Firmware Progress: Option ROM initialization: Deassertion	-	OK	
			09h		0269	- Video initialization (A)	System Firmware Progress: Video initialization: Assertion	OK	-	Yes
						- Video initialization (D)	System Firmware Progress: Video initialization: Deassertion	-	OK	
			0Ah		026A	- Cache initialization (A)	System Firmware Progress: Cache initialization: Assertion	OK	-	Yes
						- Cache initialization (D)	System Firmware Progress: Cache initialization: Deassertion	-	OK	
			0Bh		026B	- SM Bus initialization (A)	System Firmware Progress: SM Bus initialization: Assertion	OK	-	Yes
						- SM Bus initialization (D)	System Firmware Progress: SM Bus initialization: Deassertion	-	OK	
			0Ch		026C	- KB controller init (A)	System Firmware Progress: Keyboard controller initialization: Assertion	OK	-	Yes
						- KB controller init (D)	System Firmware Progress: Keyboard controller initialization: Deassertion	-	OK	
			0Dh		026D	- Embedded controller/ mgmt ctrller init (A)	System Firmware Progress: Embedded/Management controller initialization: Assertion	OK	-	Yes
						- Embedded controller/ mgmt ctrller init (D)	System Firmware Progress: Embedded/Management controller initialization: Deassertion	-	OK	

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	02h	0Eh		026E	- Docking station attachment (A)	System Firmware Progress: Docking station attachment: Assertion	OK	-	Yes
						- Docking station attachment (D)	System Firmware Progress: Docking station attachment: Deassertion	-	OK	
			0Fh		026F	- Enabling docking station (A)	System Firmware Progress: Enabling docking station: Assertion	OK	-	Yes
						- Enabling docking station (D)	System Firmware Progress: Enabling docking station: Deassertion	-	OK	
			10h		0270	- Docking station ejection (A)	System Firmware Progress: Docking station ejection: Assertion	OK	-	Yes
						- Docking station ejection (D)	System Firmware Progress: Docking station ejection: Deassertion	-	OK	
			11h		0271	- Disabling docking station (A)	System Firmware Progress: Disabling docking station: Assertion	OK	-	Yes
						- Disabling docking station (D)	System Firmware Progress: Disabling docking station: Deassertion	-	OK	
			12h		0272	- Calling operating system wake-up vector (A)	System Firmware Progress: Calling OS wake-up vector: Assertion	OK	-	Yes
						- Calling operating system wake-up vector (D)	System Firmware Progress: Calling OS wake-up vector: Deassertion	-	OK	
			13h		0273	- Stating OS boot process (A)	System Firmware Progress: Starting OS boot process: Assertion	OK	-	Yes
						- Stating OS boot process (D)	System Firmware Progress: Starting OS boot process: Deassertion	-	OK	
			14h		0274	- Baseboard/mother board init (A)	System Firmware Progress: Baseboard or motherboard initialization: Assertion	OK	-	Yes
						- Baseboard/mother board init (D)	System Firmware Progress: Baseboard or motherboard initialization: Deassertion	-	OK	
			15h		N/A	- Reserved	-	-	-	-

Sensor Type	STC	OF	ED2[1]	ED3	EC[2]	Event	SEL, SNMP Trap, and Health Event Output	Severity (A)	Severity (D)	SH
System Firmware Progress	0Fh	02h	16h		0275	- Floppy init (A)	System Firmware Progress: Floppy initialization: Assertion	OK	-	Yes
						- Floppy init (D)	System Firmware Progress: Floppy initialization: Deassertion	-	OK	Yes
			17h		0276	- KB test (A)	System Firmware Progress: Keyboard test: Assertion	OK	-	Yes
						- KB test (D)	System Firmware Progress: Keyboard test: Deassertion	-	OK	Yes
			18h		0277	- Pointing device test (A)	System Firmware Progress: Pointing device test: Assertion	OK	-	Yes
						- Pointing device test (D)	System Firmware Progress: Pointing device test: Deassertion	-	OK	Yes
			19h		0278	- Primary processor init (A)	System Firmware Progress: Primary processor initialization: Assertion	OK	-	Yes
						- Primary processor init (D)	System Firmware Progress: Primary processor initialization: Deassertion	-	OK	Yes

1. ED2 provides an event extension code. (ED2 values of 15h and 1Ah–FFh are reserved values and do not appear in the table.)
2. Event Codes are in hexadecimal.

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, appendix C, table 89.

5. CDM conversion change in "Upgrading to Firmware Version 7.1.2"

Issue: When the CMM firmware is updated, the FRU also has to be updated with the correct version of FRU files.

Section 32.4 now has states:

Before upgrading firmware versions 7.1 or 7.1.1, you must convert the CDM format. Firmware versions 7.1 and 7.1.1 use CDM version 171, which must be converted to CDM version 111 before upgrading the firmware to 7.1.2 or higher.

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section 32.4.

6. Changes to data synchronization requirements

Issue: Certain conditions must be met before CMM data synchronization can occur. An explanation should also be added about what data is actually synchronized.

Section 10.5 now states:

For synchronization to occur both of the following must be true.

- The two CMMs must be able to communicate with each other over their dedicated IPMB connection. This is required for LISM IP addresses exchanged during election.
- The two CMMs must be able to communicate with each other over an Ethernet connection. All data items and files will be synchronized over this connection.

The two CMMs can have an Ethernet connection through the Ethernet switches in the chassis, which requires that both switches be present. The CMMs can also have a connection through an external Ethernet switch connected to either the front or the rear ports. Lastly, they can have a connection using a crossover cable connecting the two front ports of the CMMs.

The only data “synchronized” between CMMs over IPMB are the IP addresses of each CMM so the synchronization process can establish a connection over the Ethernet. Once the connection is in place, all data and files are synchronized over the Ethernet.

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section 10.5.

7. Changes to Setting a Hostname procedure

Issue: The CMM needs to be rebooted so hostname configurations can take effect. The process for changing the HOSTNAME variable also needs to be clarified.

Added an example to step 1 for section 30.2.2:

1. Using a text editor such as vi, change the HOSTNAME variable in the file `/etc/hostname` to the desired name by following this example:

Change HOSTNAME=xxxx to HOSTNAME=yyyy, where yyyy is the desired name.

Added step 3 to section 30.2.2:

3. For the changes to take effect, reboot the CMM.

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section 30.2.2.

8. Error Detection section removed

Issue: Remove the Error Detection section so current functionality is accurately described.

Section 31.6 Error Detection was removed and all following 31.x sections were renumbered.

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section 31.6.

9. Added RPC error and return codes table

Issue: The error and return codes for the RPC interface need to be documented.

Added Table 173, titled Error and Return Codes for the RPC Interface, to section F.2.2 ChassisManagementApi().

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section F.2.2.

Specification Clarifications

1. CMM Hot Swap LED States table updated

Issue: Footnote added to third row of table: “During the shutdown process, after the HS LED becomes solid blue, wait a few seconds before extracting the CMM board from chassis.”

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section 4, table 6.

2. Downgrade procedure and IP connectivity

Issue: Text added about ensuring IP connectivity and downgrading the firmware: “Downgrade from 7.1 to 6.1/5.2 may result in IP connectivity problems if IP masks defined for eth1 and eth1:1 interfaces are different. Make sure that IP masks on eth1 and eth1:1 interfaces are aligned before performing firmware downgrade.”

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, section 32.5.

3. HA Peer Lost sensor

Issue: HA Peer Lost sensor text updated.

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, appendix A, table 72.

4. BIST sensor

Issue: BIST sensor text updated.

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, appendix A, table 73.

5. PICMG Hot Swap Sensor table updated

Issue: The following note was added to the PICMG Hot Swap Sensor table:

Note: In specific situations, the CMM may generate a Hot Swap event with the sensor number set to 0xFF (RESERVED). Such events are generated to signal M-state transitions for FRUs for which SDR records are not available yet. Currently, Hot Swap events with sensor number set to 0xFF are generated by the CMM in the following situations:
- CMM receives non-Hot Swap event from FRU whose M-state is not known to CMM
- CMM detects unknown FRU during E-keying process

Affected Docs: *Promentum MPCMM0001 Chassis Management Module and MPCMM0002 Chassis Management Module Software Technical Product Specification*, appendix D, table 115.

Documentation Changes

None.