



Exos[®] AP-BV-1 Release Notes

Part Number 204208200-00, A • November 2022

Description

This package delivers firmware for Exos[®] AP-BV-1 storage enclosure.

Update recommendation

This is a recommended firmware update.

Installation instructions

This is a recommended firmware update. To install this firmware, see the *Exos AP 2U12-B, 2U24-B, 5U84-B System Integration Handbook*.

Issues fixed in CLPD firmware

V3.08

- Added support for the BMC reset expander by register (0xCA, bit1).
- Added support for masking the function of CPU FSR by register (0xCA, bit2) when Midplane CPLD updates.

Issues fixed in BIOS firmware

V1.03

- Changed setup option Advance > CSM > Option ROM execution > Storage default to Do not launch.

V1.02

- Fixed 7292P CPU speed not running at 2.0GHz. (Pstate 0 is not set correctly).

V1.01

- Upgraded AMD AGESA code to Embedded Rome PI 1.0.0.7.

V1.00

- Added PSU Version/DSP Version/CRC to SMBIOS Type 39 RevisionLevel field.

V0.09

- Fixed Redfish conformance test failure.

V0.08

- Fixed the issue where the virtual CD-ROM couldn't be used in legacy mode.
- Fixed the issue where BIOS v0.07 couldn't detect TPM.
- Deleted the Redfish mapping ID IPMI800-IPMI812.

V0.07

- Fixed a hot swap issue where sometimes the IOM1 has PCI_PERR in sel log and PCI-e error in dmesg after IOM0 hot removal followed by IOM0 hot insertion.
- Fixed an issue where, after successfully upgrading BIOS firmware, the system automatically rebooted with default boot priority but then hung at task Downloading NBP file.
- Changed the NTB port (C0:03.1) register PCIE_CORR_ERR_MASK bit 12 REPLAY_TIMER_TIMEOUT_MASK from 0 to 1.
- Changed the default value of IPV6 PXE support to disabled.
- Removed UEFI: PXE IP4/IP6 American Megatrends Inc. from boot order list.
- Changed the default boot order settings.

V0.06

- Updated RTL8111 UNDI driver to v2.056.
- When the motherboard is Production Verification Test (PVT) (Mainboard ID = x02) or later, set the BIOS SPI bus to Quad mode.
- Set FRB2 timer default to Enabled.

V0.05

- Fixed an issue where the chassis information did not sync between Redfish command and dmidecode.
- Changed SMBIOS type 3 and 39 information from MP (Midplane) and PSU FRU data.
- Updated CRB version from 5.14_AESRome_0ACPQ002 to 5.14_AESRome_0ACPQ003.
- Hid BIOS setup item AMD PBS Options > RAS > CCIX GHES Corrected Err Notify Type.
- Reduced the BIOS setting items. (Hid unused items and blank pages.)
- Changed the default value of the BIOS setup item Secure Device Support Trusted Platform Module (TPM) to enable.

Issues fixed in BMC firmware

V0.52

- Fixed an issue where uninitialized fan data led to the IPMI stack being terminated.

V0.51

- Extended the IPMI OEM command (0x92) CPLD Refresh with additional options.
- Changed the major version string of PCM MCU/DSP firmware from DEC to HEX in /redfish/v1/Chassis/Self/Power.
- Changed AUX voltage sensors to monitor on standby.
- Changed 5U fan sensors to monitor on standby.

V0.50

- Updated the BIOS version by parsing the version string in the BIOS flash when finishing the update BIOS via BMC.
- Re-arranged the entity IDs and entity instances for sensors and set some sensors to monitor on standby state.
- Improved the PCM FW update flow.
- Changed the minor version string of PCM MCU/DSP firmware from DEC to HEX in /redfish/v1/Chassis/Self/Power.

V0.49

- Fixed an issue with the single IOM mode judgment with IOM0(slot-0) that activates the FAULT LED.
- Changed the minor version to have a leading zero of two digits for the FAN module.
- Added IPMI OEM command to switch the BMC mode to secondary.
- Added IPMI OEM command to switch the other BMC mode to slave.
- Added IPMI OEM command to get PCM version.
- Updated the IPMI OEM command usage of Check PCM update command.
- Added failed message to Redfish task for PCM update.

V0.48

- Fixed wrong high bit value of SKU ID.(Netfn 0x30, Cmd 0x03).

V0.47

- Added support for Malibu Midplane CPLD firmware update.
- Added IPMI OEM command to reset SAS controller(GEM) via CPLD.
- Added IPMI OEM command to enable/disable NVDIMM support via CPLD.
- Added IPMI OEM command to enable/disable NVDIMM support including another IOM which is based on the OEM command 0x9B via IPMB.
- Fixed premature reporting of PCM update where the response was reporting as a false-negative before the update was actually finished.
- Added IPMI OEM command to preserve NVRAM area for BIOS update.
- Added new parameter of PreserveNVRAM for the header of OemParameters when updating BIOS via Redfish /redfish/v1/UpdateService/upload.
- Added a sensor of BMC_Coverly with sensor type of 2Bh(Version Change) with 05h(invalid or unsupported firmware) to indicate that BMC secure boot check failed with recovery.

- Set SSDP (Simple Service Discovery Protocol) disabled as default.
- Fixed the Redfish @odate.id vpd instance from Fru to FruArea.
- Added an OEM attribute of PsuStatus on /redfish/v1/Chassis/Self/Power to indicate a PSU alert which maps to CPLD register of COh/C1h.
- Added IPMI OEM command to reset Redfish server.
- Added IPMI OEM command to reset Redis and Redfish server.
- Changed IOM and OPS Fault LED behavior to support single and dual canister use cases. The determination of single or dual canister is based on another canister presence during BMC initialization.
- Added initialization flash timeout for flash update.
- Extend the zone mode value of the Set SAS Zone Mode command to 00h-03h.
- Changed the IPMI OEM command of Get Board ID command (03h) to support get SKU ID.
- Added the OEM attribute of Skuld in /redfish/v1/Systems/Self and /redfish/v1/Managers/Self.

V0.46

- Added support for FLEX PSU PCM MCU and DSP firmware update.

V0.45

- Fixed an issue where two BMC images in shared memory might run out of space. Instead, only uploaded the BMC image to update BMC firmware, but did not copy another one for update.
- Fixed an issue where NCSI kernel debug messages continued to display when NCSI wasn't being used.

V0.44

- Fixed wrong EEPROM type of PCM VPD on 2U.
- Changed the PCM FW version string to have a leading zero for minor version of two digits. (Major version number has no leading zero.)
- Added IPMI OEM command to get Midplane/PCM/FAN VPD CRC.
- Added VPD CRC information, VpdCrc, in the corresponding Redfish VPD instance URL.
- Displayed PCM DSP firmware information in /redfish/v1/Chassis/Self/Power.
- Changed the threshold value of the PVDDQ_GH voltage sensor.
- Corrected the sensor reading source (ADC channel) for PVDDQ_CD and PVDDQ_GH.

V0.43

- Fixed wrong default disabled VLAN.
- Added IPMI OEM command to get GEM-related version from SES page 07: Netfn 0x30, Cmd 0x2F.
- Added support to preserve configuration with /UpdateService via Redfish. [Preserve configuration via /UpdateService]
- Added IPMI OEM command to send command line to GEM console and receive the result.
- Added Redfish API to read/write FRU binary data for FRU ID 1-9. Note that the FRU ID 0 is not supported.
- Added IPMI OEM command to get platform type command.

V0.42

- Added IPMI OEM command to get PSU/fan code version.
- Support get Fan code version via `/redfish/v1/Chassis/Self/Oem/FanInventor`.
Note: Only the primary BMC can get the fan version.
- Removed unsupported SNMP trap version options v2 and v3 from the web management interface.
- Fixed incorrect behavior of system power-on after using Redfish to update BIOS.

V0.41

- Redfish support midplane CPLD update. Update MP CPLD via `/UpdateService/Actions/Oem/CPLDFWUpdate`.
- Support GEM Download Microcode of SES page 0Eh via `/redfish/v1/UpdateService/upload`.
- Enabled circular SEL for 2U/5U platform.
- Added task and audit log update status checking for PSMI FW Redfish update.

V0.40

- Restored the delay time between MDIO commands to prevent EEPROM data corrupted.
- Moved the blocking MDIO operations in VLAN related commands (0x13 and 0x1F) to another task.
- Added IPMI OEM command to get the progress of two VLAN related commands (0x13 or 0x1F).

V0.39

- Fixed Status Indicator not mapping to some failure conditions of SES page 02.
- Fixed VLAN initialization issue.
 - Remove unnecessary security mode configuration of port 4.
 - Show flush EEPROM messages.
- Added return value on MDIO read command and error handling for MDIO access failure.

V0.38

- Added secure boot feature.
- Removed disable virtual device after post complete.
- Changed total size of flash from 0x8000000 to 0x4000000.
- Enabled setting `EncID` at power off.
- Added Actions/Drive.
- Changed Reset to `POWERControl` for SAS drives in Redfish drive.
- Changed the enum string (OK or Fail) of `StatusIndicator` to match Redfish drive schema.
- Updated the `StatusIndicator` to include IN CRIT ARRAY, IN FAILED ARRAY, REBUILD/REMAP and R/R ABORT of SES page 02h.
- When updating BMC, BIOS, and IOM CPLD via Redfish, disable STONITH.
- Changed behavior of IOM CPLD FW update.

- Don't send refresh command to CPLD after finishing an IOM CPLD FW update.
- Don't power on the system after finishing an IOM CPLD FW update.
- Added a new OEM command (0x30 0x92) to send refresh command to refresh CPLD.
- Upgraded IOM CPLD recovery FW version from v03.06 to v03.07.
- Changed NCSI configuration in bootloader when an add-in card was installed that didn't support NCSI.

V0.37

- When executing yafuflash update BMC/BIOS/CPLD, inform the other IOM to stop STONITH.
 - To restart STONITH after updating:
 - Start IOM-2 STONITH
 - `ipmitool -t 0x32 -b 0x6 raw 0x30 0x98 0x0`
 - Update IOM-1 STONITH
 - `ipmitool -t 0x30 -b 0x6 raw 0x30 0x98 0x0`
- Upgraded IOM CPLD recovery FW version from v02.04 to v03.06.
- Added Other Module event to 5U.
- Disabled setting `Enc ID` by front panel button at system power off.

V0.36

- Disabled set fan to full speed when IOM is removed.
- Disabled dual image feature.
- Added `Fan Present` sensor for 5U.
- Fixed an issue where SEL did not keep records when unplugging FAN modules.

V0.35

- Redfish corrected URI typo for `PSMIUpdate`.
- Redfish support IOM CPLD updated `/UpdateService/Actions/Oem/CPLDFWUpdate`. (Only support IOM CPLD updated via Redfish.)
- Fixed issue where SEL did not keep records in time for unplugging FAN modules.
- Fixed incorrect data type of `PowerCapacityWatts` for `PowerSupplies` (RTP).

V0.34

- Enabled BMC MAC0(NCSI) with dual image.
- Removed unused OEM Redfish APIs.

V0.33

- Fixed an issue where the 2U/5U fan speed sensor reading was incorrect after unplugging the fan module.
- Configured NCSI from manual switch to auto fail over.
- Enabled dual image feature.

- Added workaround to prevent BMC reset which is caused by kernel null pointer exception during AC cycle stress test.
- Fixed an issue where the CPLD update in the BMC WEB UI should be absent from the BMC web UI.
- Fixed an issue where the SEL did not keep records in time for unplugging FAN modules.

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