

Special IPMI Commands

November 28, 2024

1. IPMI Command

1.1. IPMI standard Command

Only the IPMI standard commands with AIC specific implementation are listed below.

1.1.1. Get Device ID (NetFn: 0x6, Command: 0x01)

Only the fields highlighted in green are AIC specific.

The firmware version is <Firmware Revision 1>.<Firmware Revision 2>.<Byte 1 of Auxiliary Firmware Revision Information>.

| | Byte | Data Field |
|---------------|-------|---------------------------------------------------|
| Request Data | - | - |
| Response Data | 1 | Completion Code |
| | 2 | Device ID |
| | 3 | Device Revision |
| | 4 | Firmware Revision 1 (Major Firmware Revision) |
| | 5 | Firmware Revision 2 (Minor Firmware Revision) |
| | 6 | IPMI Version |
| | 7 | Additional Device Support |
| | 8:10 | Manufacturer ID, LS Byte first. |
| | 11:12 | Product ID, LS Byte first. |
| | 13 | Byte 1 of Auxiliary Firmware Revision Information |
| | 14 | Byte 2 of Auxiliary Firmware Revision Information |
| | 15 | Byte 3 of Auxiliary Firmware Revision Information |
| | 16 | Byte 4 of Auxiliary Firmware Revision Information |

1.2. IPMI OEM Command

1.2.1. Get Edge HDD Status (NetFn: 0x3C, Command: 0x42)

| | Byte | Data Field |
|---------------|------|-----------------------|
| Request Data | 1 | Edge number |
| Response Data | 1 | Completion Code |
| | 2 | Number of hard drives |
| | 3 | Starting number |
| | 4 | Ending number |
| | 5 | 0xFF |

| | | |
|--|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 6:N | Hard disk drive status for each slot 0x01: Normal 0x02: Abnormal 0x03: Absence 0x04: Presence but Power-off 0x05: Bad HDD 0x06: Not Supported |
|--|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|

1.2.2. Edge HDD Control (NetFn: 0x3C, Command: 0x41)

| | Byte | Data Field |
|---------------|------|------------------------------------------------------------------------------------------|
| Request Data | 1 | Edge number 0x 01: Edge0 0x 02: Edge1 0x 03: Edge2 0x 04: Edge3 (4U108 only) |
| | 2 | 0x08 |
| | 3 | Slot number (use hex format) |
| | 4 | Action 0x00: Drive off 0x01: Drive on |
| Response Data | 1 | Completion Code |

Ex: Power off hdd 78 for 4u78:

raw 0x3c 0x41 0x03 0x08 0x4E 0x00

1.2.3. Get BMC Firmware Name (NetFn: 0x3A, Command: 0x33)

| | Byte | Data Field |
|---------------|------|-------------------|
| Request Data | - | - |
| Response Data | 1 | Completion Code |
| | 2:14 | BMC Platform Name |

1.2.4. Set/Get Expander UART (NetFn: 0x3C, Command: 0x40)

| | Byte | Data Field |
|--------------|-------|-----------------|
| Request Data | 1 | Expander select |
| | (Set) | 0x00: Hub |

| | | |
|---------------|---|-----------------------------------------------------------------------|
| | | 0x01: Edge0 0x02: Edge1 0x03: Edge2 0x04: Edge3 (4U108 only) |
| Response Data | 1 | Select Expander |
| | 2 | Expander is being updated 0xFF: idle |
| | 3 | SOL active Expander 0xFF: idle |

1.2.5. Set/Get Expander ZoneCount (NetFn: 0x3C, Command: 0x44)

| | Byte | Data Field |
|---------------|---------------------|--------------------------------------------------------------------------------------------|
| Request Data | - | - |
| | For Set Power State | |
| | 1 | Sync to peer BMC. Fixed 0x01 |
| | 2 | ZoneCount 0x01: ZoneCount 1 0x02: ZoneCount 2 0x04: ZoneCount 4 Other: Invalid |
| Response Data | 1 | Current ZoneCount |