OpenIPMC-specific-demo

Test on an ATCA crate

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Test conditions

- OpenIPMC-HW v1.2 is connected in a Pulsar-II ATCA board
- Pulsar-II board is always inserted in the crate
 - Tests are done remotely
 - The handle switch is simulated with the 'handle [o | c]' CLI command
 - The firmware is loaded with a STLink device, which is also used to debug



Test conditions

- Tests conducted with **board-specific-demo** project
 - <u>https://gitlab.com/openipmc/openipmc-fw-board-specific-demo</u>
 - All sensors are simulated in the code
 - Before testing, it is highly recommend to update the OpenIPMC-FW module to the latest devel branch commit.
 - The following commands can be used as reference:

\$ git clone --recursive https://gitlab.com/openipmc/openipmc-fw-board-specific-demo
\$ cd openipmc-fw-board-specific-demo/

\$ cd openipmc-fw

\$ git checkout devel

\$ git submodule update --init --recursive

Printouts added before the 12V_ENABLE SET/RESET

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ST-LINK (ST-LINK GDB server)	Board_activation_policy.c × ▲ api_lib.c ▲ xvc_jtag.c ▲ main.c ▲ startup_stm32h745xihx.s ■ 69 // DEACTIVATION 70 if(new_power_level == 0) 71 { 72 73 // Customize DEACTIVATION process 74 75 /* /* 76 Put here any code related to deactivation of the board. 77 // Customize DEACTIVATION process 78 /* 78 // 78 // 79 // Switch off the 12V rail for payload 80 // Switch on the 12V rail for payload 81 92 m t printf("12V ENABLE SET"); 82 // Switch on the 12V rail for payload 91 m t printf("12V ENABLE SET"); 83 94 97 97	*s = 1 8 Name

IPMITOOL to verify the IPMB-0 bus communication

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CLI output at startup

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Max command: 28	
>> 12V ENABLE SET	
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Shelf-Manager's SEL Output

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Simulation of the handle switch open state

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Shelf-Manager's SEL Output

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76	11/20/2024	10:04:39	Session Audit #0x8b Asserted	
0b	11/20/2024	10:04:44	Session Audit #0x8b Asserted	
0c	11/20/2024	10:04:47	Session Audit #0x8b Asserted	
0d	11/20/2024	10:05:28	Session Audit #0x8b Asserted	
0e	11/20/2024	10:05:34	Session Audit #0x8b Asserted	
0f	11/20/2024	10:09:23	FRU Hot Swap Transition to M0 Asserted	
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12	11/20/2024	10:09:24	FRU Hot Swap Transition to M4 Asserted	
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15	11/20/2024	10:18:27	FRU Hot Swap Transition to M7 Asserted	
6	11/20/2024	10:18:29	FRU Hot Swap Transition to M2 Asserted	
17	11/20/2024	10:18:29	FRU Hot Swap Transition to M3 Asserted	
8	11/20/2024	10:18:29	FRU Hot Swap Transition to M4 Asserted	
9	11/20/2024	10:18:53	Session Audit #0x8b Asserted	
la	11/20/2024	10:18:55	Session Audit #0x8b Asserted	
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Simulation of the handle switch close state

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Shelf-Manager's SEL Output

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Telnet Connection

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OpenIPMC-HW Board ID: <not available=""> STM32 UniqueID: 0x001B003E 31335114 38323831 Firmware commit: 33146343</not>	
Target Board: some-ATCA-board Hardware Address: 0x45 IPMB-0 Address: 0x8a FRU Device ID # 0000 Site Number: 5 Site Type: 0000	
Network: IP Source: DHCP DHCP Client ID: \377\000\000\000\002\000\002\000\000\061\132\110\120\115\056\063\055\061\324\123\120\122\101\103\1 MAC Addr: 00:80:E1:80:89:83 IP Addr: 10.0.0.146 netmask: 255.255.0.0 GW Addr: 10.0.0.254	05\055\100
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Telnet Connection

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>> >> info	
OpenIPMC-HW Board ID: <not available=""> STM32 UniqueID: 0x001B003E 31335114 38323831 Firmware commit: 33146343</not>	
Target Board: some-ATCA-board Hardware Address: 0x45 IPMB-0 Address: 0x8a FRU Device ID # 0000 Site Number: 5 Site Type: 0000	
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