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System Event Logs

The System Event Log (SEL) and Event Log in OpenBMC provide robust mechanisms for monitoring, diagnosing, and troubleshooting hardware and system issues.

- SEL
 - Functionality – The SEL captures and records significant system events related to hardware and firmware. This includes events such as hardware failures, temperature thresholds, power anomalies, and other critical system changes.
 - Access – The SEL can be accessed via IPMI\Redfish commands, allowing administrators to query and retrieve logs for analysis
 - Management – Administrators can clear, save, and manage SEL entries to maintain system health and ensure critical events are recorded accurately
- Event Log:
 - Functionality – The Event Log provides a comprehensive record of both hardware and software events, offering detailed insights into system operations and potential issues. This includes firmware updates, configuration changes, security alerts, etc.
 - Access – The Event Log is accessible via Redfish interface, enabling easy retrieval and management of event data
 - Management – Users can filter, sort, and analyze events to identify patterns, diagnose problems, and improve system reliability. The Event Log supports exporting logs for offline analysis and archiving.
- Key features
 - Scalability – Both the SEL and Event Log are designed to handle a high volume of events, ensuring no critical information is lost
 - Integration – These logs integrate seamlessly with existing management tools, providing a unified view of system health and events
 - Usability – User-friendly interfaces and command-line tools make it easy to access and manage logs, ensuring administrators can quickly respond to issues

Overall, the SEL and Event Log in OpenBMC are essential tools for maintaining system integrity, improving reliability, and ensuring swift resolution of any issues that arise.

Event Log Redfish Commands

Displaying Event Log Information

```
curl -k -u root:'<password>' -H 'Content-Type: application/json'  
-X GET  
https://<bmc_ip>/redfish/v1/Systems/Bluefield/LogServices/EventLog,
```

Output example:

```

{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog",
  "@odata.type": "#LogService.v1_1_0.LogService",
  "Actions": {
    "#LogService.ClearLog": {
      "target":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Actions/LogService
    }
  },
  "DateTime": "2023-09-27T14:28:50+00:00",
  "DateTimeLocalOffset": "+00:00",
  "Description": "System Event Log Service",
  "Entries": {
    "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries"
  },
  "Id": "EventLog",
  "Name": "Event Log Service",
  "Oem": {
    "Nvidia": {
      "@odata.type": "#NvidiaLogService.v1_0_0.NvidiaLogService",
      "LatestEntryID": "4",
      "LatestEntryTimeStamp": "2023-09-27T14:19:30+00:00"
    }
  },
  "OverWritePolicy": "WrapsWhenFull"
}

```

Displaying List of Events

```
curl -k -u root:'<password>' -H 'Content-Type: application/json'  
-X GET  
https://<bmc_ip>/redfish/v1/Systems/Bluefield/LogServices/EventLog,
```

Output example:

```

{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries",
  "@odata.type": "#LogEntryCollection.LogEntryCollection",
  "Description": "Collection of System Event Log Entries",
  "Members": [
    {
      "@odata.id":
      "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/1",
      "@odata.type": "#LogEntry.v1_9_0.LogEntry",
      "AdditionalDataURI":
      "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/1/attach",
      "Created": "2023-09-27T14:18:39+00:00",
      "EntryType": "Event",
      "Id": "1",
      "Message": "12V_ATX sensor crossed a warning low threshold
going low. Reading=6.048000 Threshold=10.400000.",
      "MessageArgs": [
        "12V_ATX",
        "6.048000",
        "10.400000"
      ],
      "MessageId":
      "OpenBMC.0.1.SensorThresholdWarningLowGoingLow",
      "Name": "System Event Log Entry",
      "Resolution": "",
      "Resolved": false,
      "Severity": "OK"
    }
    ...
  ],
  "Members@odata.count": 1,
  "Name": "System Event Log Entries"
}

```

```
}
```

Clearing Event Log

```
curl -k -u root:'<password>' -H 'Content-Type: application/json'  
-X POST  
https://<bmc_ip>/redfish/v1/Systems/Bluefield/LogServices/EventLog,
```

SEL Redfish Commands

Displaying SEL Information

```
curl -k -u root:'<password>' -H 'Content-Type: application/json'  
-X GET  
https://<bmc_ip>/redfish/v1/Systems/Bluefield/LogServices/SEL/
```

Output example:

```

{
  "@odata.id": "/redfish/v1/Systems/Bluefield/LogServices/SEL",
  "@odata.type": "#LogService.v1_1_0.LogService",
  "Actions": {
    "#LogService.ClearLog": {
      "target":
"/redfish/v1/Systems/Bluefield/LogServices/SEL/Actions/LogService.(
    }
  },
  "DateTime": "2024-07-18T10:54:52+00:00",
  "DateTimeLocalOffset": "+00:00",
  "Description": "IPMI SEL Service",
  "Entries": {
    "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/SEL/Entries"
  },
  "Id": "SEL",
  "Name": "SEL Log Service",
  "OverWritePolicy": "WrapsWhenFull"
}

```

Displaying List of Events

```

curl -k -u root:'<password>' -H 'Content-Type: application/json'
-X GET
https://<bmc_ip>/redfish/v1/Systems/Bluefield/LogServices/SEL/Entr:

```

Output example:

```

{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/SEL/Entries",
  "@odata.type": "#LogEntryCollection.LogEntryCollection",
  "Description": "Collection of System Event Log Entries",
  "Members": [
    {
      "@odata.id":
      "/redfish/v1/Systems/Bluefield/LogServices/SEL/Entries/1",
      "@odata.type": "#LogEntry.v1_13_0.LogEntry",
      "Created": "2024-07-16T15:34:32+00:00",
      "EntryType": "SEL",
      "Id": "1",
      "Message": "12V_ATX sensor crossed a warning low threshold
going low. Reading=6.048000 Threshold=10.400000.",
      "MessageArgs": [
        "12V_ATX",
        "6.048000",
        "10.400000"
      ],
      "MessageId":
      "OpenBMC.0.1.SensorThresholdWarningLowGoingLow",
      "Name": "System Event Log Entry",
      "Resolution": "Check the sensor or subsystem for errors.",
      "Resolved": false,
      "Severity": "OK"
    },
    ...
  ],
  "Members@odata.count": 22,
  "Name": "System Event Log Entries"
}

```

Clearing Event Log

```
curl -k -u root:'<password>' -H 'Content-Type: application/json'  
-X POST  
https://<bmc_ip>/redfish/v1/Systems/Bluefield/LogServices/EventLog,
```

Configuring SEL Info Log Capacity

```
curl -k -u root:'<password>' -H 'Content-Type: application/json'  
-X POST  
https://<bmc_ip>/redfish/v1/Managers/Bluefield_BMC/Actions/Oem/Nvidia/  
-d '{"ErrorInfoCap":300 }'
```

Getting SEL Info Log Capacity

```
curl -k -u root:'<password>' -H 'Content-Type: application/json'  
-X GET  
https://<bmc_ip>/redfish/v1/Managers/Bluefield_BMC/Oem/Nvidia/SelCa
```

Example output:

```
{  
  "ErrorInfoCap": 300  
}
```

SEL IPMI Commands

The following table lists the command to use to view event logs:

Displaying SEL Information

```
ipmitool -C 17 -I lanplus -H <bmc_ip> -U ADMIN -P ADMIN sel
```

Displaying List of Events

```
ipmitool -C 17 -I lanplus -H <bmc_ip> -U ADMIN -P ADMIN sel list
```

Displaying Extended List of Events

```
ipmitool -C 17 -I lanplus -H <bmc_ip> -U ADMIN -P ADMIN sel elist
```

Saving SEL Events to File

```
ipmitool -C 17 -I lanplus -H <bmc_ip> -U ADMIN -P ADMIN sel save  
<filename>
```

Clearing SEL

```
ipmitool -C 17 -I lanplus -H <bmc_ip> -U ADMIN -P ADMIN sel clear
```

Configuring SEL Info Log Capacity

The capacity is a 4-byte value, and the byte order is from low to high as shown in command example.

To set the capacity to 300 lines, the value should be `0x2c 0x01 0x00 0x00`:

```
ipmitool -C 17 -I lanplus -H <bmc_ip> -U ADMIN -P ADMIN raw  
0x0a 0x4a <capacity[0:7]> <capacity[8:15]> <capacity[16:23]>  
<capacity[24:31]>
```

Getting SEL Info Log Capacity

```
ipmitool -C 17 -I lanplus -H <bmc_ip> -U ADMIN -P ADMIN raw 0x0a  
0x4b
```

SEL Message Types

The following subsections detail the messages which are added to the BMC SEL and the scenarios that trigger them.

UEFI Boot

Messages are added to the BMC SEL while the BlueField UEFI is booting which describe the status of the UEFI boot.

SEL messages:

- `SMBus initialization`
- `PCI resource configuration`
- `System boot initiated`

Example:

```
SEL Record ID      : 0037
Record Type        : 02
Timestamp          : 06:36:06 UTC 06:36:06 UTC
Generator ID       : 0001
EvM Revision       : 04
Sensor Type        : System Firmware
Sensor Number      : 06
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : c207ff
Description        : PCI resource configuration
```

DPU Watchdog Sensor

A watchdog message will be added in the event of a DPU reset caused by the hardware watchdog.

Example:

```
10 | 07/17/25 | 12:43:16 UTC | Watchdog2 #0x28 | Power cycle |
Asserted
```

IPMB Sensors

QSFP Sensors

Messages are added to the SEL in case of a change in the status of the QSFP cables. The messages describe the event and status of the sensor.

List of QSFP sensors:

- `P0_link` – the QSFP 0 cable status

- `P1_link` – the QSFP 1 cable status

SEL messages:

- `Config Error` – the QSFP cable is down
- `Connected` – the QSFP cable is up

Example:

```

SEL Record ID      : 003e
Record Type       : 02
Timestamp         : 07:08:28 UTC 07:08:28 UTC
Generator ID      : 0020
EvM Revision      : 04
Sensor Type       : Cable / Interconnect
Sensor Number     : 00
Event Type        : Sensor-specific Discrete
Event Direction   : Assertion Event
Event Data (RAW)  : 010f0f
Event Interpretation : Missing
Description       : Config Error

Sensor ID         : p0_link (0x0)
Entity ID        : 31.1
Sensor Type (Discrete): Cable / Interconnect
States Asserted  : Cable / Interconnect
                  [Config Error]

```

Temperature Sensors

Messages are added to the SEL if temperature sensors detect a value higher than the sensor thresholds. The messages include a description of the event, BlueField FRU device description, BlueField BMC device description, and the status of the sensor.

List of temperature sensors:

- `bluefield_temp` – Bluefield temperature
- `p0_temp` – QSFP 0 cable temperature
- `p1_temp` – QSFP 1 cable temperature
- `ddr_temp` – DDR temperature

SEL messages:

- `Upper Critical going high` – crossing a upper critical threshold
- `Upper Non-critical going high` – crossing a upper non-critical threshold
- `Lower Critical going low` – crossing a lower critical threshold
- `Lower Non-critical going low` – crossing a lower non-critical threshold

Example:

SEL Record ID : 003c
Record Type : 02
Timestamp : 07:01:06 UTC 07:01:06 UTC
Generator ID : 0020
EvM Revision : 04
Sensor Type : Temperature
Sensor Number : 03
Event Type : Threshold
Event Direction : Assertion Event
Event Data (RAW) : 592802
Trigger Reading : 40.000degrees C
Trigger Threshold : 2.000degrees C
Description : Upper Critical going high

Sensor ID : p0_temp (0x3)
Entity ID : 0.1
Sensor Type (Threshold) : Temperature
Sensor Reading : 40 (+/- 0) degrees C
Status : ok
Lower Non-Recoverable : na
Lower Critical : -5.000
Lower Non-Critical : 0.000
Upper Non-Critical : 70.000
Upper Critical : 75.000
Upper Non-Recoverable : na
Positive Hysteresis : Unspecified
Negative Hysteresis : Unspecified
Assertion Events :
Event Enable : Event Messages Disabled
Assertions Enabled : lnc- lcr- unc+ ucr+
Deassertions Enabled : lnc+ lcr+ unc- ucr-

FRU Device Description : Nvidia-BMCMezz (ID 169)
Board Mfg Date : Tue Jan 3 23:16:00 2023 UTC
Board Mfg : Nvidia

```
Board Product      : Nvidia-BMCMezz
Board Serial       : MT2251XZ02W5
Board Part Number  : 900-9D3B6-00CV-AAA

FRU Device Description : BlueField-3 Smar (ID 250)
Board Mfg Date     : Tue Jan  3 23:16:00 2023 UTC
Board Mfg          : Nvidia
Board Product      : BlueField-3 SmartNIC Main Card
Board Serial       : MT2251XZ02W5
Board Part Number  : 900-9D3B6-00CV-AAA
Product Manufacturer : Nvidia
Product Name       : BlueField-3 SmartNIC Main Card
Product Part Number : 900-9D3B6-00CV-AAA
Product Version    : A3
Product Serial     : MT2251XZ02W5
Product Asset Tag  : 900-9D3B6-00CV-AAA
```

Voltage Sensors

Messages are added to the SEL if a voltage sensor's reading crosses the sensor's thresholds. The messages include a description of the event, BlueField BMC device description, and the status of the sensor.

List of voltage sensors:

- `rtc_voltage` – RTC battery voltage

SEL messages:

- `Lower Critical going low` – crossing a lower critical threshold

Example:

SEL Record ID : 0227
Record Type : 02
Timestamp : 02/17/25 16:01:21 UTC
Generator ID : 0020
EvM Revision : 04
Sensor Type : Voltage
Sensor Number : 1a
Event Type : Threshold
Event Direction : Assertion Event
Event Data (RAW) : 52004d
Trigger Reading : 2.000Volts
Trigger Threshold : 2.302Volts
Description : Lower Critical going low

Sensor ID : rtc_voltage (0x1a)
Entity ID : 0.1
Sensor Type (Threshold) : Voltage
Sensor Reading : 3.000 (+/- 0) Volts
Status : ok
Lower Non-Recoverable : na
Lower Critical : 2.302
Lower Non-Critical : na
Upper Non-Critical : na
Upper Critical : na
Upper Non-Recoverable : na
Positive Hysteresis : Unspecified
Negative Hysteresis : Unspecified
Assertion Events :
Event Enable : Event Messages Disabled
Assertions Enabled : lcr- ucr+
Deassertions Enabled : lcr+ ucr-

FRU Device Description : Nvidia-BMCMezz (ID 169)
Board Mfg Date : Sun Feb 12 07:48:00 2023 UTC
Board Mfg : Nvidia

```
Board Product      : Nvidia-BMCMezz
Board Serial       : MT2306XZ00BU
Board Part Number  : 900-9D3B6-00CC-AAA
Board Area Checksum : OK
```

Power Sensors

Messages are added to the SEL if power sensors detect a value higher/lower than the sensor thresholds. The messages include a description of the event, BlueField BMC device description, and the status of the sensor.

List of power sensors:

- `soc_power` – current power consumption of the SoC
- `power_envelope` – maximum power consumption allowed to the SoC

SEL messages:

- `Upper Non-critical going high` – crossing an upper non-critical threshold (only in `power_envelope`)
- `Lower Critical going low` – crossing a lower critical threshold (only in `soc_power`)
- `Lower Non-critical going low` – crossing a lower non-critical threshold (only in `power_envelope`)

Example:

SEL Record ID : 000e
Record Type : 02
Timestamp : 02/13/25 09:09:11 UTC
Generator ID : 0020
EvM Revision : 04
Sensor Type : Other
Sensor Number : 05
Event Type : Threshold
Event Direction : Assertion Event
Event Data (RAW) : 520005
Trigger Reading : 0.000Watts
Trigger Threshold : 5.000Watts
Description : Lower Critical going low

Sensor ID : soc_power (0x5)
Entity ID : 0.1
Sensor Type (Threshold) : Other
Sensor Reading : 0 (+/- 0) Watts
Status : Lower Critical
Lower Non-Recoverable : na
Lower Critical : 5.000
Lower Non-Critical : na
Upper Non-Critical : na
Upper Critical : na
Upper Non-Recoverable : na
Positive Hysteresis : Unspecified
Negative Hysteresis : Unspecified
Assertion Events : lcr-
Event Enable : Event Messages Disabled
Assertions Enabled : lcr- ucr+
Deassertions Enabled : lcr+ ucr-

FRU Device Description : Nvidia-BMCMezz (ID 169)
Board Mfg Date : Mon Aug 7 07:48:00 2023 UTC
Board Mfg : Nvidia

```
Board Product      : Nvidia-BMCMezz
Board Serial       : MT2329XZ010Z
Board Part Number  : 900-9D3B4-00EN-EAA
Board Area Checksum : OK
```

Synthesized Sensors

Power Deviation Sensors

Messages are added to the SEL if power sensors detect a value higher or lower than the sensor thresholds.

List of power deviation sensors:

- `power_envelope_deviation` – Measure the deviation between the values of the `soc_power` and `power_envelope` sensors

SEL messages:

- `Upper Critical going high` – crossing a upper critical threshold
- `Upper Non-critical going high` – crossing a upper non-critical threshold

Example:

SEL Record ID : 0014
Record Type : 02
Timestamp : 02/13/25 09:17:11 UTC
Generator ID : 0020
EvM Revision : 04
Sensor Type : Other
Sensor Number : 04
Event Type : Threshold
Event Direction : Assertion Event
Event Data (RAW) : 590f05
Trigger Reading : 15.000Watts
Trigger Threshold : 5.000Watts
Description : Upper Critical going high

Sensor ID : power_envelope_d (0x4)
Entity ID : 0.1
Sensor Type (Threshold) : Other
Sensor Reading : 15 (+/- 0) Watts
Status : Upper Critical
Lower Non-Recoverable : na
Lower Critical : na
Lower Non-Critical : na
Upper Non-Critical : 0.000
Upper Critical : 5.000
Upper Non-Recoverable : na
Positive Hysteresis : Unspecified
Negative Hysteresis : Unspecified
Assertion Events : unc+ ucr+
Event Enable : Event Messages Disabled
Assertions Enabled : lnc- lcr- unc+ ucr+
Deassertions Enabled : lnc+ lcr+ unc- ucr-

FRU Device Description : Nvidia-BMCMezz (ID 169)
Board Mfg Date : Mon Aug 7 07:48:00 2023 UTC
Board Mfg : Nvidia

```
Board Product      : Nvidia-BMCMezz
Board Serial       : MT2329XZ010Z
Board Part Number  : 900-9D3B4-00EN-EAA
Board Area Checksum : OK
```

ADC Sensors

Messages are added to the SEL if the sensor voltage crosses the sensor's thresholds. The messages include a description of the event, BlueField FRU device description, BlueField BMC device description, and the status of the sensor.

List of ADC sensors:

- 1V_BMC
- 1_2V_BMC
- 1_8V
- 1_8V_BMC
- 2_5V
- 3_3V
- 3_3V_RGM
- 5V
- 12V_ATX
- 12V_PCIE
- DVDD
- HVDD

- VDD
- VDDQ
- VDD_CPU_L
- VDD_CPU_R

SEL messages:

- Upper Non-critical going high – crossing a upper non-critical threshold
- Lower Non-critical going low – crossing a lower non-critical threshold

Example:

SEL Record ID : 0042
Record Type : 02
Timestamp : 09:20:50 UTC 09:20:50 UTC
Generator ID : 0020
EvM Revision : 04
Sensor Type : Voltage
Sensor Number : 06
Event Type : Threshold
Event Direction : Assertion Event
Event Data (RAW) : 50a9ff
Trigger Reading : 1.200Volts
Trigger Threshold : 1.810Volts
Description : Lower Non-critical going low

Sensor ID : 1_2V_BMC (0x6)
Entity ID : 0.1
Sensor Type (Threshold) : Voltage
Sensor Reading : 1.200 (+/- 0) Volts
Status : ok
Lower Non-Recoverable : na
Lower Critical : na
Lower Non-Critical : 1.143
Upper Non-Critical : 1.257
Upper Critical : na
Upper Non-Recoverable : na
Positive Hysteresis : Unspecified
Negative Hysteresis : Unspecified
Assertion Events :
Event Enable : Event Messages Disabled
Assertions Enabled : Inc- unc+
Deassertions Enabled : Inc+ unc-

FRU Device Description : Nvidia-BMCMezz (ID 169)
Board Mfg Date : Tue Jan 3 23:16:00 2023 UTC
Board Mfg : Nvidia

```
Board Product      : Nvidia-BMCMezz
Board Serial       : MT2251XZ02W5
Board Part Number  : 900-9D3B6-00CV-AAA

FRU Device Description : BlueField-3 Smar (ID 250)
Board Mfg Date      : Tue Jan  3 23:16:00 2023 UTC
Board Mfg           : Nvidia
Board Product       : BlueField-3 SmartNIC Main Card
Board Serial        : MT2251XZ02W5
Board Part Number   : 900-9D3B6-00CV-AAA
Product Manufacturer : Nvidia
Product Name        : BlueField-3 SmartNIC Main Card
Product Part Number : 900-9D3B6-00CV-AAA
Product Version     : A3
Product Serial      : MT2251XZ02W5
Product Asset Tag   : 900-9D3B6-00CV-AAA
```

System Commands

Warm Rebooting BlueField

SEL messages:

```
System boot initiated
Initiated by warm reset
```

Example:

```
SEL Record ID      : 0001
Record Type        : 02
Timestamp          : 01/10/24 14:25:07 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : System Boot Initiated
Sensor Number      : 17
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 020000
Description        : Initiated by warm reset
```

Hard Rebooting BlueField

SEL messages:

```
System boot initiated
Initiated by hard reset
```

Example:

```
SEL Record ID      : 0008
Record Type        : 02
Timestamp          : 01/10/24 14:33:01 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : System Boot Initiated
Sensor Number      : 17
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 010000
Description        : Initiated by hard reset
```

If the host does not assert the `PERST` / `ALL_STANDBY` signal, causing the reset to fail, the following SEL messages can be observed:

```
Power Unit
Failure detected
```

Example:

```
SEL Record ID      : 0004
Record Type        : 02
Timestamp          : 07/25/24 13:32:18 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Power Unit
Sensor Number      : 1b
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 060000
Description        : Failure detected
```

Shutting Down BlueField

SEL messages:

```
OS Critical Stop
OS graceful shutdown
```

Example:

```
SEL Record ID      : 000a
Record Type        : 02
Timestamp          : 01/10/24 14:34:45 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : OS Critical Stop
Sensor Number      : 18
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 030000
Description        : OS graceful shutdown
```

Updating BlueField BFB Image

SEL messages:

```
Firmware or software change success
```

Example:

```
SEL Record ID      : 0007
Record Type        : 02
Timestamp          : 06/11/24 14:03:02 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Version Change
Sensor Number      : 18
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : c70000
Description        : Firmware or software change success
```

Updating BMC

SEL messages:

```
Firmware or software change success, Mngmt SW agent change
```

Example:

```
SEL Record ID      : 0010
Record Type        : 02
Timestamp          : 01/10/24 15:48:01 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Version Change
Sensor Number      : 19
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : c70e00
Description        : Firmware or software change success,
Mngmt SW agent change
```

RAS Errors

Multi-bit ECC

SEL messages:

```
Uncorrectable ECC
```

Example:

```
SEL Record ID      : 024a
Record Type        : 02
Timestamp          : 06/20/24 15:54:58 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Memory
Sensor Number      : 17
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 010000
Description        : Uncorrectable ECC
```

Single-bit ECC

SEL messages:

```
Correctable ECC
```

Example:

```
SEL Record ID      : 0254
Record Type        : 02
Timestamp          : 06/20/24 16:01:05 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Memory
Sensor Number      : 17
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 000000
Description        : Correctable ECC
```

Cache Correctable Error

- Event `data1 0x0C` indicates Correctable machine check error
- Event `data2 0x1` indicates a cache error (same Processor Error Type enumeration used by Cper)

https://uefi.org/specs/UEFI/2.10_A/Apx_N_Common_Platform_Error_Record.html

SEL messages:

```
Correctable machine check error
```

Example:

```
SEL Record ID      : 009d
Record Type        : 02
Timestamp          : 12/17/24 12:16:35 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Processor
Sensor Number      : 18
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 0c0100
Description        : Correctable machine check error
```

Cache Uncorrectable Error

- Event `data1 0x0C` indicates Correctable machine check error
- Event `data2 0x1` indicates a cache error (same Processor Error Type enumeration used by Cper)

https://uefi.org/specs/UEFI/2.10_A/Apx_N_Common_Platform_Error_Record.html

SEL messages:

```
Uncorrectable machine check exception
```

Example:

```
SEL Record ID      : 0012
Record Type        : 02
Timestamp          : 12/10/24 16:32:27 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Processor
Sensor Number      : 1b
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 0b0100
Description        : Uncorrectable machine check exception
```

Cache Uncorrectable Fatal Error

- Event `data1 0x0C` indicates Correctable machine check error
- Event `data2 0x1` indicates a cache error (same Processor Error Type enumeration used by Cper)
- Event `data3 0x1` indicates a fatal error .

https://uefi.org/specs/UEFI/2.10_A/Apx_N_Common_Platform_Error_Record.html

SEL messages:

```
Uncorrectable machine check exception
```

Example:

```
SEL Record ID      : 00b1
Record Type        : 02
Timestamp          : 12/17/24 16:07:11 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Processor
Sensor Number      : 18
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 0b0101
Description        : Uncorrectable machine check exception
```

PCIe Correctable Error

SEL messages:

```
Bus Correctable error
```

Example:

```
SEL Record ID      : 000c
Record Type        : 02
Timestamp          : 02/10/25 15:11:22 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Critical Interrupt
Sensor Number      : ff
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 070000
Description        : Bus Correctable error
```

PCIe Uncorrectable Error

SEL messages:

```
Bus Uncorrectable error
```

Example:

```
SEL Record ID      : 001c
Record Type        : 02
Timestamp          : 02/12/25 09:30:22 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Critical Interrupt
Sensor Number      : ff
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 080000
Description        : Bus Uncorrectable error
```

PCIe Fatal Error

SEL messages:

```
Bus Fatal Error
```

Example:

```
SEL Record ID      : 0012
Record Type        : 02
Timestamp          : 02/12/25 12:10:25 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Critical Interrupt
Sensor Number      : ff
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 0a0000
Description        : Bus Fatal Error
```

ATX Power Error

SEL messages:

```
Power Supply
Failure detected
```

Example:

```
SEL Record ID      : 0006
Record Type        : 02
Timestamp          : 02/17/25 13:47:28 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Power Supply
Sensor Number      : 02
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data (RAW)   : 010000
Event Interpretation : Missing
Description        : Failure detected
```

Arm Frequency Change

The system's frequency is dynamically managed by the Arm cores, based on the system's power consumption and temperature. As long as they stay below a predefined threshold, the Arm cores operate at full frequency. If power consumption or temperature exceeds their threshold, the frequency is reduced in stages for mitigation. This reduction will put the system under the crossed threshold, and then the frequency will be throttled back to full performance.

SEL message:

```
Throttled | Asserted
```

Example:

```
SEL Record ID      : 0004
Record Type        : 02
Timestamp          : 09/01/24 09:12:34 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Processor
Sensor Number      : ff
Event Type         : Sensor-specific Discrete
Event Direction    : Assertion Event
Event Data         : 0a0000
Description        : Throttled
```

Info

More details can be extracted from Redfish. Further information is available in section "[Redfish Event Log](#)".

Data Port Module Events

Data Port Module High Power Consumption Notification

An SEL entry is generated when the power consumption of a data port module exceeds a critical threshold.

SEL messages:

```
Voltage <sensor-id> | Upper Non-recoverable going high | Asserted
```

Example:

```
SEL Record ID      : 0029
Record Type        : 02
Timestamp          : 09/29/24 13:22:44 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Voltage
Sensor Number      : 1d
Event Type         : Threshold
Event Direction    : Assertion Event
Event Data         : 0b0000
Description        : Upper Non-recoverable going high
```

Info

The sensor ID can be found using `ipmitool sdr list all -vv`.

- Port 0 sensor name: `voltage_p0`
- Port 1 sensor name: `voltage_p1`

Data Port Module Thermal "Going High" Notification

Indicates that the temperature of the data port module exceeded valid range.

SEL messages:

```
Temperature <sensor-id> | Upper Non-critical going high |
Asserted
```

Example:

```
SEL Record ID      : 002c
Record Type        : 02
Timestamp          : 10/01/24 06:47:54 UTC
Generator ID       : 0020
EvM Revision       : 04
Sensor Type        : Temperature
Sensor Number      : 1d
Event Type         : Threshold
Event Direction    : Assertion Event
Event Data         : 070000
Description        : Upper Non-critical going high
```

Info

The sensor ID can be found using `ipmitool sdr list all -vv`.

- Port 0 sensor name: `thermal_p0`
- Port 1 sensor name: `thermal_p1`

Data Port Module Thermal "Going Low" Notification

Indicates that the temperature of the data port module returned to valid range.

SEL messages:

```
Temperature <sensor-id> | Upper Non-critical going low |  
Asserted
```

Example:

```
SEL Record ID      : 002d  
Record Type       : 02  
Timestamp         : 10/01/24 06:47:58 UTC  
Generator ID     : 0020  
EvM Revision     : 04  
Sensor Type      : Temperature  
Sensor Number    : 1d  
Event Type       : Threshold  
Event Direction  : Assertion Event  
Event Data       : 060000  
Description      : Upper Non-critical going low
```

Info

The sensor ID can be found using `ipmitool sdr list all -vv`.

- Port 0 sensor name: `thermal_p0`
- Port 1 sensor name: `thermal_p1`

Redfish Event Log

System Commands

Warm Rebooting BlueField

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2/attach",
  "Created": "2024-07-26T10:41:57+00:00",
  "EntryType": "Event",
  "Id": "2",
  "Message": "DPU Warm Reset",
  "Modified": "2024-07-26T10:41:57+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Hard Rebooting BlueField

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/7",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/7/attach",
  "Created": "2024-07-26T09:50:16+00:00",
  "EntryType": "Event",
  "Id": "7",
  "Message": "DPU Hard Reset",
  "Modified": "2024-07-26T09:50:16+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

If the host does not assert the PERST signal, causing the reset to fail:

```
{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/8",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/8/attach",
  "Created": "2024-07-26T09:58:34+00:00",
  "EntryType": "Event",
  "Id": "8",
  "Message": "PERST is in de-assert, skip SoC Hard Reset",
  "Modified": "2024-07-26T09:58:34+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

If the host does not assert the `ALL_STANDBY` signal, causing the reset to fail:

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/8",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/8/attach",
  "Created": "2024-07-26T09:58:34+00:00",
  "EntryType": "Event",
  "Id": "8",
  "Message": "ALL_STDBY is in de-assert, skip SoC Hard
Reset",
  "Modified": "2024-07-26T09:58:34+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Shutting Down BlueField

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/18",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/18/att
  "Created": "2024-07-26T13:56:46+00:00",
  "EntryType": "Event",
  "Id": "18",
  "Message": "DPU Shutdown",
  "Modified": "2024-07-26T13:56:46+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
},
```

Updating BMC

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2/attach",
  "Created": "2024-07-26T10:41:57+00:00",
  "EntryType": "Event",
  "Id": "2",
  "Message": "BMC SW update",
  "Modified": "2024-07-26T10:41:57+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
},
```

Getting Measurements

```
{
  "@odata.id": "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/12",
  "@odata.type": "#LogEntry.v1_15_0.LogEntry",
  "Created": "2025-03-04T15:34:43+00:00",
  "EntryType": "Event",
  "Id": "12",
  "Message": "Redfish attestation measurements POST request received",
  "Modified": "2025-03-04T15:34:43+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Adding BMC User

```
{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3/attach",
  "Created": "2024-01-10T14:25:14+00:00",
  "EntryType": "Event",
  "Id": "3",
  "Message": "BMC User Create test0",
  "Modified": "2024-01-10T14:25:14+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Deleting BMC User

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2/attach
  "Created": "2024-01-10T14:25:14+00:00",
  "EntryType": "Event",
  "Id": "2",
  "Message": "BMC User Delete test0",
  "Modified": "2024-01-10T14:25:14+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Renaming BMC User

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2/attach
  "Created": "2024-01-10T14:25:14+00:00",
  "EntryType": "Event",
  "Id": "2",
  "Message": "BMC User Rename test0 To test1",
  "Modified": "2024-01-10T14:25:14+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

BMC User Login

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/27",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/27/att
  "Created": "2024-06-11T13:07:34+00:00",
  "EntryType": "Event",
  "Id": "27",
  "Message": "User (root) logged in",
  "Modified": "2024-06-11T13:07:34+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

BMC User Logout

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/37",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/37/att
  "Created": "2024-06-11T13:30:48+00:00",
  "EntryType": "Event",
  "Id": "37",
  "Message": "User (root) logged out",
  "Modified": "2024-06-11T13:30:48+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BMC User Password

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/11",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/11/att
  "Created": "2024-06-11T13:03:42+00:00",
  "EntryType": "Event",
  "Id": "11",
  "Message": "Password changed for root",
  "Modified": "2024-06-11T13:03:42+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BlueField UEFI Password

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/7",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/7/attach",
  "Created": "2024-06-11T13:02:04+00:00",
  "EntryType": "Event",
  "Id": "7",
  "Message": "Password changed for UEFI",
  "Modified": "2024-06-11T13:02:04+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Adding BMC IP Address

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/20",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/20/att
  "Created": "2024-07-25T13:40:22+00:00",
  "EntryType": "Event",
  "Id": "20",
  "Message": "BMC IP Address Added",
  "Modified": "2024-07-25T13:40:22+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
},
```

Deleting BMC IP Address

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/21",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/21/att
  "Created": "2024-01-10T15:53:57+00:00",
  "EntryType": "Event",
  "Id": "21",
  "Message": "BMC IP Address Deleted",
  "Modified": "2024-01-10T15:53:57+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BMC IPv4 Mode to Static

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/6",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/6/attach",
  "Created": "2024-06-11T13:02:04+00:00",
  "EntryType": "Event",
  "Id": "6",
  "Message": "Set IPv4 to Static mode",
  "Modified": "2024-06-11T13:02:04+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
},
```

Changing BMC IPv4 Mode to DHCP

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/9",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/9/attach
  "Created": "2024-06-11T13:02:05+00:00",
  "EntryType": "Event",
  "Id": "9",
  "Message": "Set IPv4 to DHCP mode",
  "Modified": "2024-06-11T13:02:05+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BMC IPv6 Mode to Static

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/38",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/38/att
  "Created": "2024-06-11T13:34:57+00:00",
  "EntryType": "Event",
  "Id": "38",
  "Message": "Set IPv6 to Static mode",
  "Modified": "2024-06-11T13:34:57+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BMC IPv6 Mode to DHCP

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/39",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/39/att
  "Created": "2024-06-11T13:35:03+00:00",
  "EntryType": "Event",
  "Id": "39",
  "Message": "Set IPv6 to DHCP mode",
  "Modified": "2024-06-11T13:35:03+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BMC NTP Server

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/8",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/8/attach
  "Created": "2024-06-11T14:07:30+00:00",
  "EntryType": "Event",
  "Id": "8",
  "Message": "BMC NTP Servers Changed",
  "Modified": "2024-06-11T14:07:30+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Starting RShim on BMC

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/4",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/4/attach",
  "Created": "2024-06-11T13:00:41+00:00",
  "EntryType": "Event",
  "Id": "4",
  "Message": "Started rshim service on BMC",
  "Modified": "2024-06-11T13:00:41+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Stopping RShim on BMC

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/35",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/35/att
  "Created": "2024-06-11T13:29:19+00:00",
  "EntryType": "Event",
  "Id": "35",
  "Message": "Stopped rshim service on BMC",
  "Modified": "2024-06-11T13:29:19+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Reset of TOR E-Switch

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/32",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/32/att
  "Created": "2024-06-11T13:19:57+00:00",
  "EntryType": "Event",
  "Id": "32",
  "Message": "Reset of TOR E-Switch",
  "Modified": "2024-06-11T13:19:57+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Setting Mode of 3-port Switch Ports to Allow All Ports to Access OOB RJ45

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/34",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/34/att
  "Created": "2024-06-11T13:20:12+00:00",
  "EntryType": "Event",
  "Id": "34",
  "Message": "All ports are allowed access to RJ45",
  "Modified": "2024-06-11T13:20:12+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Setting Mode of 3-port Switch Ports to Allow Only BMC Port to Access OOB RJ45

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/33",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/33/att
  "Created": "2024-06-11T13:20:09+00:00",
  "EntryType": "Event",
  "Id": "33",
  "Message": "Only BMC port is allowed access to RJ45",
  "Modified": "2024-06-11T13:20:09+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Clearing BMC SEL

```
{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/2/attach
  "Created": "2024-06-11T13:49:03+00:00",
  "EntryType": "Event",
  "Id": "2",
  "Message": "Start clearing SEL",
  "Modified": "2024-06-11T13:49:03+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

BMC Factory Reset

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/1",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/1/attach",
  "Created": "2024-06-11T13:49:03+00:00",
  "EntryType": "Event",
  "Id": "1",
  "Message": "BMC factory reset will take effect upon
reboot",
  "Modified": "2024-06-11T13:49:03+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Resetting BMC Soft

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/17",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/17/att
  "Created": "2024-01-10T15:52:46+00:00",
  "EntryType": "Event",
  "Id": "17",
  "Message": "BMC Soft Reset",
  "Modified": "2024-01-10T15:52:46+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Enabling RShim Access from Host

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3/attach",
  "Created": "2024-06-11T13:51:28+00:00",
  "EntryType": "Event",
  "Id": "3",
  "Message": "RShim access privilege from host will be
enabled after NIC reset",
  "Modified": "2024-06-11T13:51:28+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Disabling RShim Access from Host

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/4",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/4/attach",
  "Created": "2024-06-11T13:51:29+00:00",
  "EntryType": "Event",
  "Id": "4",
  "Message": "RShim access privilege from host will be
disabled after NIC reset",
  "Modified": "2024-06-11T13:51:29+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Enabling BlueField DPU Mode

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/31",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/31/att
  "Created": "2024-06-11T13:18:40+00:00",
  "EntryType": "Event",
  "Id": "31",
  "Message": "DPU mode will take effect after NIC reset",
  "Modified": "2024-06-11T13:18:40+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Enabling BlueField NIC Mode

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/30",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/30/att
  "Created": "2024-06-11T13:18:39+00:00",
  "EntryType": "Event",
  "Id": "30",
  "Message": "NIC mode will take effect after NIC reset",
  "Modified": "2024-06-11T13:18:39+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Enabling BlueField Secure Boot

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/28",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/28/att
  "Created": "2024-06-11T13:14:34+00:00",
  "EntryType": "Event",
  "Id": "28",
  "Message": "Secure Boot Option changed to Enable",
  "Modified": "2024-06-11T13:14:34+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Disabling BlueField Secure Boot

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/29",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/29/att
  "Created": "2024-06-11T13:14:45+00:00",
  "EntryType": "Event",
  "Id": "29",
  "Message": "Secure Boot Option changed to Disable",
  "Modified": "2024-06-11T13:14:45+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BlueField Boot Order

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/6",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/6/attach",
  "Created": "2024-06-11T13:02:04+00:00",
  "EntryType": "Event",
  "Id": "6",
  "Message": "System boot order changed",
  "Modified": "2024-06-11T13:02:04+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Enabling BlueField Boot Source

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/4",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/4/attach",
  "Created": "2024-07-26T09:49:42+00:00",
  "EntryType": "Event",
  "Id": "4",
  "Message": "System boot source enabled",
  "Modified": "2024-07-26T09:49:42+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Disabling BlueField Boot Source

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/5",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/5/attach",
  "Created": "2024-07-26T09:49:42+00:00",
  "EntryType": "Event",
  "Id": "5",
  "Message": "System boot source disabled",
  "Modified": "2024-07-26T09:49:42+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
},
```

Changing BlueField Boot Source from Continuous to Once

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3/attach",
  "Created": "2024-07-26T09:49:42+00:00",
  "EntryType": "Event",
  "Id": "3",
  "Message": "System boot source will take effect for one
boot",
  "Modified": "2024-07-26T09:49:42+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
},
```

Info

This log will not be generated if only the boot source is enabled without switching the boot override persistent setting

Changing BlueField Boot Source from Once to Continuous

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3/attach",
  "Created": "2024-07-26T10:42:31+00:00",
  "EntryType": "Event",
  "Id": "3",
  "Message": "System boot source will take effect
continuously",
  "Modified": "2024-07-26T10:42:31+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Info

This log will not be generated if only the boot source is enabled without switching the boot override persistent setting

Changing BlueField Boot Source to Default

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/11",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/11/att
  "Created": "2024-06-11T14:12:12+00:00",
  "EntryType": "Event",
  "Id": "11",
  "Message": "System boot source changed to Default",
  "Modified": "2024-06-11T14:12:12+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BlueField Boot Source to PXE

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/12",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/12/att
  "Created": "2024-06-11T14:12:13+00:00",
  "EntryType": "Event",
  "Id": "12",
  "Message": "System boot source changed to Network",
  "Modified": "2024-06-11T14:12:13+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BlueField Boot Source to UEFI HTTP

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/12",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/12/att
  "Created": "2024-06-11T14:12:13+00:00",
  "EntryType": "Event",
  "Id": "12",
  "Message": "System boot source changed to HTTP",
  "Modified": "2024-06-11T14:12:13+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BlueField Boot Type to Legacy

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/9",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/9/attach
  "Created": "2024-06-11T14:09:40+00:00",
  "EntryType": "Event",
  "Id": "9",
  "Message": "System boot type changed to Legacy",
  "Modified": "2024-06-11T14:09:40+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Changing BlueField Boot Type to UEFI

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/10",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/10/att
  "Created": "2024-06-11T14:10:43+00:00",
  "EntryType": "Event",
  "Id": "10",
  "Message": "System boot type changed to UEFI",
  "Modified": "2024-06-11T14:10:43+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Updating BlueField BFB Image

```
{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/6",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/6/attach",
  "Created": "2024-06-11T14:01:13+00:00",
  "EntryType": "Event",
  "Id": "6",
  "Message": "Starting Bluefield DPU BFB update",
  "Modified": "2024-06-11T14:01:13+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Arm Frequency Change Redfish System Command

3 optional message descriptions:

- CPU frequency switched to P0 [100%].
- CPU frequency switched to P1 [80%].
- CPU frequency switched to P2 [50%].

Example:

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/5",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/5/attach",
  "Created": "2024-09-01T09:12:46+00:00",
  "EntryType": "Event",
  "Id": "5",
  "Message": "CPU frequency switched to P0 [100%].",
  "Modified": "2024-09-01T09:12:46+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "OK"
}
```

Data Port Module High Power Consumption Notification

An SEL entry generated when the power consumption of a data port module exceeds a critical threshold.

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/764",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/764/at
  "Created": "2024-09-29T08:56:54+00:00",
  "EntryType": "Event",
  "Id": "764",
  "Message": "SEL event for port 1 High Module Current
notification, ThresholdCriticalHighGoingHigh",
  "Modified": "2024-09-29T08:56:54+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "Severity": "Critical"
}
```

Data Port Module Temperature Going High

Indicates that data port module temperature exceeded valid range.

```
{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/SEL/Entries/5",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "Created": "2024-09-16T07:41:13+00:00",
  "EntryCode": "Assert",
  "EntryType": "SEL",
  "Id": "5",
  "Message": "SEL event for port 0 high thermal notification,
ThresholdWarningHighGoingHigh",
  "MessageId": "SEL event for port 0 high thermal
notification, ThresholdWarningHighGoingHigh",
  "Modified": "2024-09-16T07:41:13+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "SensorNumber": 28,
  "SensorType": "Temperature",
  "Severity": "Warning"
}
```

Data Port Module Temperature Going Low

Indicates that data port module temperature returned to valid range.

```

{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/SEL/Entries/6",
  "@odata.type": "#LogEntry.v1_13_0.LogEntry",
  "Created": "2024-09-16T07:41:19+00:00",
  "EntryCode": "Assert",
  "EntryType": "SEL",
  "Id": "6",
  "Message": "SEL event for port 0 normal thermal
notification, ThresholdGoingLow",
  "MessageId": "SEL event for port 0 normal thermal
notification, ThresholdGoingLow",
  "Modified": "2024-09-16T07:41:19+00:00",
  "Name": "System Event Log Entry",
  "Resolved": false,
  "SensorNumber": 28,
  "SensorType": "Temperature",
  "Severity": "OK"
}

```

RAS Logging

CPER to Redfish severity translation:

CPER Severity	Redfish Severity
Recoverable	Warning
Fatal	Critical
Corrected	OK
Informational	Warning

RAS Cache Error

```

{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3",
  "@odata.type": "#LogEntry.v1_15_0.LogEntry",
  "AdditionalDataURI":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3/attachments/CPER",
  "CPER": {
    "NotificationType": "09a9d5ac-5204-4214-96e5-94992e752bcd",
    "Oem": {
      "Nvidia": {
        "@odata.type": "#NvidiaCPER.v1_0_0.NvidiaCPER",
        "ArmProcessor": {
          "ContextInfo": [],
          "ContextInfoNum": 0,
          "ErrorAffinity": {
            "Type": "Vendor Defined",
            "Value": 0
          },
        },
        "ErrorInfo": [
          {
            "CacheError": {
              "Corrected": false,
              "Level": 0,
              "Operation": {
                "Name": "Generic Error",
                "Value": 0
              },
            },
            "PrecisePC": false,
            "ProcessorContextCorrupt": false,
            "RestartablePC": false,
            "TransactionType": {
              "Name": "Instruction",
              "Value": 0
            },
          },
        ],
      },
    },
  },
}

```

```

        "ValidationBits": {
            "CorrectedValid": false,
            "LevelValid": false,
            "OperationValid": false,
            "PrecisePCValid": false,
"ProcessorContextCorruptValid": false,
            "RestartablePCValid": false,
            "TransactionTypeValid": false
        }
    },
    "ErrorType": {
        "Name": "Cache Error",
        "Value": 0
    },
    "Flags": {
        "FirstErrorCaptured": false,
        "LastErrorCaptured": false,
        "Overflow": false,
        "Propagated": false
    },
    "Length": 32,
    "MultipleError": {
        "Type": "Multiple Errors",
        "Value": 1
    },
    "PhysicalFaultAddress": 0,
    "ValidationBits": {
        "ErrorInformationValid": false,
        "FlagsValid": false,
        "MultipleErrorValid": true,
        "PhysicalFaultAddressValid":
false,
        "VirtualFaultAddressValid": false
    },
    "Version": 0,

```

```

        "VirtualFaultAddress": 0
    }
],
"ErrorInfoNum": 1,
"MidrEl1": 1091556385,
"MpidrEl1": 2164326400,
"PsciState": 0,
"Running": true,
"SectionLength": 72,
"ValidationBits": {
    "ErrorAffinityLevelValid": false,
    "MpidrValid": true,
    "RunningStateValid": true,
    "VendorSpecificInfoValid": false
}
}
},
"SectionType": "e19e3d16-bc11-11e4-9caa-c2051d5d46b0"
},
"Created": "2024-11-15T19:14:48+00:00",
"DiagnosticDataType": "CPERSection",
"EntryType": "Event",
"Id": "3",
"Message": "A platform error occurred.",
"MessageArgs": [],
"MessageId": "Platform.1.0.PlatformError",
"Name": "System Event Log Entry",
"Resolution": "Check additional diagnostic data if
available.",
"Resolved": false,
"Severity": "Warning"
}

```

RAS Memory Error

```

{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/6",
  "@odata.type": "#LogEntry.v1_15_0.LogEntry",
  "AdditionalDataURI":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/6/attachments/CPER",
  "CPER": {
    "NotificationType": "09a9d5ac-5204-4214-96e5-94992e752bcd",
    "Oem": {
      "Nvidia": {
        "@odata.type": "#NvidiaCPER.v1_0_0.NvidiaCPER",
        "Memory": {
          "Bank": {
            "Value": 0
          },
          "BitPosition": 0,
          "Card": 0,
          "CardSmbiosHandle": 0,
          "Column": 0,
          "Device": 0,
          "ErrorStatus": {
            "AddressSignal": true,
            "ControlSignal": false,
            "DataSignal": false,
            "DetectedByRequester": false,
            "DetectedByResponder": false,
            "ErrorType": {
              "Description": "Storage error in
memory (DRAM).",
              "Name": "ERR_MEM",
              "Value": 4
            },
            "FirstError": false,
            "OverflowDroppedLogs": false
          }
        }
      }
    }
  }
}

```

```
},
"Extended": {
  "ChipIdentification": 0,
  "RowBit16": false,
  "RowBit17": false
},
"MemoryErrorType": {
  "Name": "Scrub Uncorrected Error",
  "Value": 14
},
"ModuleRank": 0,
"ModuleSmbiosHandle": 0,
"Node": 0,
"PhysicalAddress": 12884901888,
"PhysicalAddressMask": 281474976710655,
"RankNumber": 0,
"RequestorID": 0,
"ResponderID": 0,
"Row": 40960,
"TargetID": 0,
"ValidationBits": {
  "BankAddressValid": false,
  "BankGroupValid": true,
  "BankValid": true,
  "BitPositionValid": true,
  "CardHandleValid": false,
  "CardValid": false,
  "ChipIdentificationValid": false,
  "ColumnValid": true,
  "DeviceValid": false,
  "ErrorStatusValid": true,
  "ExtendedRowBitsValid": true,
  "MemoryErrorTypeValid": true,
  "MemoryPlatformTargetValid": false,
  "ModuleHandleValid": false,
  "ModuleValid": true,

```

```

        "NodeValid": false,
        "PhysicalAddressMaskValid": true,
        "PhysicalAddressValid": true,
        "PlatformRequestorIDValid": false,
        "PlatformResponderIDValid": false,
        "RankNumberValid": true,
        "RowValid": true
    }
}
},
    "SectionType": "a5bc1114-6f64-4ede-b863-3e83ed7c83b1"
},
"Created": "2024-11-15T10:40:08+00:00",
"DiagnosticDataType": "CPERSection",
"EntryType": "Event",
"Id": "6",
"Message": "A platform error occurred.",
"MessageArgs": [],
"MessageId": "Platform.1.0.PlatformError",
"Name": "System Event Log Entry",
"Resolution": "Check additional diagnostic data if
available.",
"Resolved": false,
"Severity": "Warning"
}

```

RAS PCIe Error

```

{
  "@odata.id":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/15",
  "@odata.type": "#LogEntry.v1_15_0.LogEntry",
  "AdditionalDataURI":
"/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/15/att
  "CPER": {
    "NotificationType": "cf93c01f-1a16-4dfc-b8bc-
9c4daf67c104",
    "Oem": {
      "Nvidia": {
        "@odata.type": "#NvidiaCPER.v1_0_0.NvidiaCPER",
        "Pcie": {
          "AerInfo": {
            "Capabilites_control": 0,
            "Capability_header": 0,
            "Correctable_error_mask": 0,
            "Correctable_error_status": 0,
            "Correctable_error_status_hex":
"0x00000000",
            "Data":
"AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA",
            "Tlp_header_0": 0,
            "Tlp_header_1": 0,
            "Tlp_header_2": 0,
            "Tlp_header_3": 0,
            "Uncorrectable_error_mask": 0,
            "Uncorrectable_error_severity": 0,
            "Uncorrectable_error_status": 0,
            "Uncorrectable_error_status_hex":
"0x00000000"
          },
          "BridgeControlStatus": {
            "ControlRegister": 0,
            "SecondaryStatusRegister": 0
          }
        }
      }
    }
  }
}

```

```
    },
    "CapabilityStructure": {
      "Data":
"AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA",
    },
    "CommandStatus": {
      "CommandRegister": 0,
      "StatusRegister": 0
    },
    "DeviceID": {
      "ClassCode": 0,
      "DeviceID": 5555,
      "DeviceIDHex": "0x15B3",
      "DeviceNumber": 0,
      "FunctionNumber": 0,
      "PrimaryOrDeviceBusNumber": 0,
      "SecondaryBusNumber": 0,
      "SegmentNumber": 0,
      "SlotNumber": 0,
      "VendorID": 41692
    },
    "DeviceSerialNumber": 0,
    "PortType": {
      "Name": "Unknown",
      "Value": 16777216
    },
    "ValidationBits": {
      "AerInfoValid": false,
      "BridgeControlStatusValid": false,
      "CapabilityStructureStatusValid": false,
      "CommandStatusValid": false,
      "DeviceIDValid": false,
      "DeviceSerialNumberValid": false,
      "PortTypeValid": false,
      "VersionValid": false
    },
  },
```

```
        "Version": {
            "Major": 0,
            "Minor": 0
        }
    },
    "SectionType": "d995e954-bbc1-430f-ad91-b44dcb3c6f35"
},
"Created": "2025-02-12T12:09:42+00:00",
"DiagnosticDataType": "CPERSection",
"EntryType": "Event",
"Id": "15",
"Message": "A platform error occurred.",
"MessageArgs": [],
"MessageId": "Platform.1.0.PlatformError",
"Name": "System Event Log Entry",
"Resolution": "Check additional diagnostic data if
available.",
"Resolved": false,
"Severity": "OK"
}
```

ATX Power Error

```

{
  "@odata.id":
  "/redfish/v1/Systems/Bluefield/LogServices/EventLog/Entries/3",
  "@odata.type": "#LogEntry.v1_15_0.LogEntry",
  "CPER": {
    "NotificationType": "6d5244f2-2712-11ec-bea7-
cb3fdb95c786",
    "Oem": {
      "Nvidia": {
        "@odata.type": "#NvidiaCPER.v1_0_0.NvidiaCPER",
        "Nvidia": {
          "ErrorInstance": 0,
          "ErrorType": 4,
          "InstanceBase": 0,
          "RegisterCount": 1,
          "Registers": [
            {
              "Address": 0,
              "Value": 1
            }
          ],
          "Severity": {
            "Code": 1,
            "Name": "Fatal"
          },
          "Signature": "NBU",
          "Socket": 0
        }
      }
    },
    "SectionType": "6d5244f2-2712-11ec-bea7-cb3fdb95c786"
  },
  "Created": "2025-01-16T08:37:32+00:00",
  "DiagnosticData":
  "Q1BFUgAD/////wEAAQAAAAAAAAAD4AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

```

```
"DiagnosticDataType": "CPERSection",
"EntryType": "Event",
"Id": "3",
"Links": {
  "OriginOfCondition": {
    "@odata.id":
"/redfish/v1/Systems/Bluefield/Processors/CPU_0"
  }
},
"Message": "A platform error occurred.",
"MessageArgs": [],
"MessageId": "Platform.1.0.PlatformError",
"Name": "System Event Log Entry",
"Resolution": "Check additional diagnostic data if
available.",
"Resolved": false,
"Severity": "Critical"
}
```

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