



AGS8200
AI Server

BMC System User Guide

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AGS8200

AI Server

How to Use This Guide

This guide includes detailed information on how to access the AGS8200 AI Server's Baseboard Management Controller (BMC) system.

Who Should Read this Guide? This guide is for system administrators who are responsible for managing and troubleshooting the AGS8200 AI Server.

How this Guide is Organized The organization of this guide is based on the different user interface (UI) options available for accessing the BMC system.

The guide includes these sections:

- Chapter 1 [“BMC Introduction”](#) — Lists the BMC features supported and how to get started using the BMC.
- Chapter 2 [“Command-Line Interface \(CLI\)”](#) — Provides a full description of BMC functions that can be executed through CLI access.
- Chapter 3 [“Intelligent Platform Management Interface \(IPMI\)”](#) — Provides a full description of BMC functions based on IPMI.
- Chapter 4 [“Redfish API”](#) — Includes information on how to use the Redfish API to manage the BMC system.
- Chapter 5 [“Web Interface”](#) — Includes information on how to use the web interface to manage the BMC system.
- Chapter 6 [“System Event Log \(SEL\)”](#) — Lists SEL entries currently supported by the BMC system.

Conventions The following conventions are used throughout this guide to show information:



Note: Emphasizes important information or calls your attention to related features or instructions.



Caution: Alerts you to a potential hazard that could cause loss of data, or damage the system or equipment.



Warning: Alerts you to a potential hazard that could cause personal injury.

Revision History This section summarizes the changes in each revision of this guide.

August 2024 Revision

This is the first revision of this guide.

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1

BMC Introduction

This chapter includes the following sections:

- [“BMC User Guide Overview” on page 12](#)
- [“Feature List” on page 12](#)
- [“Getting Started” on page 14](#)

BMC User Guide Overview

This guide describes functional specifications for the Baseboard Management Controller (BMC) system on the AGS8200 AI Server. You can quickly understand how to use the BMC system and its supported features through the descriptions in this guide.

This guide covers different user interface (UI) options that can be used to access the same BMC function. The following UI options are available:

- [Command-Line Interface \(CLI\)](#)
- [Intelligent Platform Management Interface \(IPMI\)](#)
- [Redfish API](#)
- [Web Interface](#)

Feature List

The following table summarizes the features supported on the AGS8200 and the UI categories available for each feature.

Table 1: BMC System Feature List

Category	Function	Description	CLI	IPMI	Redfish	Web
Reliability	Primary/Secondary BMC Image Flash	Supports dual BMC Flash. If the primary BMC Flash fails to boot, it automatically switches to boot from the secondary BMC Flash. Also supports a manual switch.	Y	N	N	N
	Watchdog	(1) BMC SoC watchdog is used to protect the runtime working of the BMC.	Y	N	N	N
		(2) IPMI watchdog, a software watchdog for the OS by the ipmitool command.	N	Y	N	N
	RTC & Time Synchronization	(1) Supports adjustment of the RTC time when the platform boots-up.	Y	N	N	N
		(2) Has an external RTC with battery to keep time when platform is powered off.	N	N	N	N
		(3) Supports timezone setting.	Y	N	N	N

Table 1: BMC System Feature List (Continued)

Category	Function	Description	CLI	IPMI	Redfish	Web
Platform Management	Power Control	(1) Power on, off, reset the host CPU.	Y	Y	Y	Y
		(2) Power cycle entire machine.	Y	N	N	N
		(3) Reset BMC.	Y	Y	Y	Y
	Remote Console (SOL)	(1) Allow users to interact with the host CPU remotely from the BMC.	N	Y	N	Y
		(2) This feature is also referred to as Serial-over-LAN or SOL.	Y	Y	N	Y
	Firmware Information/Update	(1) Show platform component firmware information.	Y	N	N	Y
		(2) Program platform component firmware.	Y	N	N	N
	FRU EEPROMs R/W	(1) Read platform FRU EEPROMs information.	Y	Y	N	Y
		(2) Update platform FRU EEPROM content (locked by default).	Y	N	N	N
	Platform Health/Peripheral Monitoring	(1) Monitor host CPU and DIMM health status.	Y	Y	N	N
		(2) Monitor PSU, fan, and thermal sensor information.	Y	Y	Y	Y
		(3) Record SEL when detecting abnormal status.	N	Y	N	Y
		(4) Lighten peripheral LEDs per platform status.	Y	N	N	Y
	Fan Controller	(1) Auto adjust fan speed per information of thermal sensors and fan status.	N	N	N	N
		(2) Adjust fan speed manually.	Y	Y	Y	Y
Platform Troubleshooting	Logging	(1) Platform SEL (System Event Log).	N	Y	Y	Y
		(2) BMC system event and error logging.	Y	N	N	N
		(3) Log storing in NV-RAM and rotating mechanism.	N	N	N	N
		(4) Supports log packaging and storage to eMMC.	N	N	N	N
	Host CPU Status	(1) Host CPU boot-up status (I/O port 80h decode).	Y	N	N	Y
		(2) Show CPU console log.	Y	N	N	N
		(3) Record CPU MSA bank registers when detecting host CPU abnormal.	Y	N	N	N

Table 1: BMC System Feature List (Continued)

Category	Function	Description	CLI	IPMI	Redfish	Web
BMC System Management	BMC UI (User Interface)	(1) CLI: Console, SSH.	Y	N	N	N
		(2) IPMI (includes Lanplus).	N	Y	N	N
		(3) REST API.	N	N	Y	Y
	Network Interface Control	(1) Management IP interface (setting, query)	Y	N	N	Y
		(2) In-band IP interface between BMC and host CPU.	Y	N	N	N
		(3) IPv4/IPv6.	Y	Y	Y	Y
		(4) DHCP IPv4/IPv6 client.	Y	Y	N	Y
		(5) ICMP IPv4/IPv6.	Y	N	N	N
		(6) NTP.	Y	N	Y	Y
		(7) VLAN.	N	Y	N	N
	Security	(1) SSH.	Y	N	N	N
		(2) SSL.	Y	N	N	N
		(3) Authentication for management user interface.	N	Y	Y	N
		(4) User Account Management (add, delete, change password, query users, permission).	Y	Y	Y	Y

Getting Started

The BMC firmware comes from OpenBMC (community branch: 2.16.0-dev) and supports both a serial console login and SSH login by default. The default credentials for login is **root/OpenBmc** (the first character in the password is a zero).

By default, the baud rate for the RJ-45 console port is 115200, and the console port screen is connected to the device BMC CLI. You can use the hotkey "Ctrl-u 1" to switch the console screen from the BMC CLI to the host CPU CLI, and "Ctrl-u 2" to switch from the host CPU CLI to the BMC CLI.

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Command-Line Interface (CLI)

This chapter includes the following sections:

- [“CLI Overview” on page 16](#)
- [“BMC System Management” on page 17](#)
- [“Firmware Inventory” on page 17](#)
- [“Network Service” on page 19](#)
- [“Platform Health and Peripheral Monitoring” on page 21](#)
- [“Platform Management” on page 22](#)
- [“Platform Troubleshooting” on page 23](#)
- [“Remote Control Host” on page 27](#)
- [“Security Service” on page 27](#)

CLI Overview

This chapter contains a full description of functions that can be executed through the CLI and involves shell script execution. Each command is shown by a simple description, command syntax, and an example.

Table 2: CLI Commands

Command	Function
BMC System Management	
<code>cmd_list.sh</code>	Lists BMC script commands.
Firmware Inventory	
<code>show_version.sh</code>	Displays version information for various components.
<code>boot_util.sh</code>	Switches the SPI flash or queries the selected SPI flash.
<code>fwupd_util.sh</code>	Updates specified individual components.
Network Service	
<code>ifconfig</code>	Displays IP interface information.
<code>ping</code>	Checks the connection to a remote IPv4 computer or local computer by sending an ICMP response message.
<code>ping6</code>	Checks the connection to a remote IPv6 computer or local computer by sending an ICMPv6 response message.
<code>udhcpd</code>	Enables a client to acquire an IP address from a DHCP server.
Platform Health and Peripheral Monitoring	
<code>fan_util.sh</code>	Queries fan status or changes fan speed.
Platform Management	
<code>power_util.sh</code>	Displays platform power status and controls platform power.
<code>timedatectl</code>	Queries or sets time, timezone, and NTP.
Platform Troubleshooting	
<code>journalctl</code>	Queries the Syslog of BMC.
<code>Show CPU Console Log</code>	Displays the CPU console log file.
Remote Control Host	
<code>sol.sh</code>	Switches BMC console to host CPU console.
Security Service	
<code>ssh</code>	Creates a secure SSH connection over the network.
<code>openssl</code>	Creates a secure OpenSSL connection over the network.
<code>useradd</code>	Adds a new user account.

BMC System Management

The commands listed in this section include the command list function.

cmd_list.sh Lists BMC script commands.

Syntax

cmd_list.sh

Example

```
root@obmc:~# cmd_list.sh

User commands:
  boot_util.sh      --Show and set the BMC or BIOS boot sequence
  fan_util.sh       --Show and set the FAN and PWM
  fwupd_util.sh     --Update the all kind of component
  oam_util.sh       --Show and set OAM modules
  power_util.sh     --Show and control platform power
  show_version.sh   --Show the component version information
  sol.sh            --Switch BMC uart to host CPU uart
  ubb_util.sh       --Show and set UBB board

root@obmc:~#
```

Firmware Inventory

The commands listed in this section include component update methods and firmware version information.

show_version.sh Displays version information for various components.

Syntax

show_version.sh

Example

```
root@obmc:~# show_version.sh
Machine model      : AGS8200
BMC Version       : V00.00.06h
BIOS Version      : v102.0A.00.05
System CPLD Version : V0a.02
PCIe Switch CPLD Version : V0a.03
HSBP1 CPLD Version : V0b.01
HSBP2 CPLD Version : V0b.01
HSBP3 CPLD Version : V0b.01
root@obmc:~#
```

boot_util.sh Switches the SPI flash or queries the selected SPI flash.

Syntax

boot_util.sh [-h] [bmc | bios] [primary | secondary]

-h – Display help and exit.

bmc – Show the BMC boot status.

bios – Show the BIOS boot status.

primary – Set the device to boot from the primary after a reboot.

secondary – Set the device to boot from the secondary after a reboot.

Example

```
root@obmc:~# show_version.sh
Machine model      : AGS8200
BMC Version        : V00.00.06h
BIOS Version       : v102.0A.00.05
System CPLD Version : V0a.02
PCIe Switch CPLD Version : V0a.03
HSBP1 CPLD Version  : V0b.01
HSBP2 CPLD Version  : V0b.01
HSBP3 CPLD Version  : V0b.01
root@obmc:~#
```

fwupd_util.sh Updates specified individual components.

Syntax

fwupd_util.sh [-h] [bmc | bios | cpld] [primary | secondary] [sys | ps | hsbp1 | hsbp2 | hsbp3] <file>

-h – Display help and exit.

bmc – Update a BMC component.

bios – Update a BIOS component.

cpld – Update a CPLD component.

primary – Update the primary of the boot flash.

secondary – Update the backup of the boot flash.

sys – Specifies the system CPLD.

ps – Specifies the PCIe Switch CPLD.

hsbp1 – Specifies the HSBP1 CPLD.

hsbp2 – Specifies the HSBP2 CPLD.

hsbp3 – Specifies the HSBP3 CPLD.

file – The upgrade file name.

Example

```
fwupd_util.sh bmc primary <file>      # upgrade BMC primary image.
fwupd_util.sh bmc secondary <file>    # upgrade BMC secondary image.
fwupd_util.sh bios primary <file>     # upgrade BIOS primary image.
fwupd_util.sh bios secondary <file>   # upgrade BIOS secondary image.
fwupd_util.sh cpld sys <file>         # upgrade SYS CPLD image.
fwupd_util.sh cpld ps <file>          # upgrade PCIe Switch CPLD image.
fwupd_util.sh cpld hsbp1 <file>       # upgrade HSBP1 CPLD image.
fwupd_util.sh cpld hsbp2 <file>       # upgrade HSBP2 CPLD image.
fwupd_util.sh cpld hsbp3 <file>       # upgrade HSBP3 CPLD image.
```

Network Service

The commands listed in this section include IP protocol functions.

ifconfig Displays IP interface information.

Syntax

ifconfig [-a] [IFACE] [ADDRESS]

-a – Display all interfaces.

IFACE – The network interface.

ADDRESS – The IP address.

Command Usage

The IP that is set up with the **ifconfig** command is not retained after a reboot. Refer to [ipmitool lan set](#) for how to set an IP for the system.

Example

```
root@obmc:~# ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 52:42:00:45:5C:F6
          inet addr:169.254.200.181 Bcast:169.254.255.255  Mask:255.255.0.0
          inet6 addr: fe80::5042:ff:fe45:5cf6/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
          RX packets:167349 errors:0 dropped:0 overruns:0 frame:0
          TX packets:82 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:21638442 (20.6 MiB) TX bytes:6048 (5.9 KiB)
          interrupt:34
root@obmc:~#
```

ping Checks the connection to a remote IPv4 computer or local computer by sending an ICMP response message.

Syntax

ping [options] host

Example

```
root@obmc:~# ping 172.21.150.254
PING 172.21.150.254 (172.21.150.254): 56 data bytes
64 bytes from 172.21.150.254: seq=0 ttl=64 time=0.547 ms
64 bytes from 172.21.150.254: seq=6 ttl=64 time=0.489 ms
```

ping6 Checks the connection to a remote IPv6 computer or local computer by sending an ICMPv6 response message.

Syntax

ping6 [-I *IFACE*] *ADDRESS*

-I *IFACE* – The network interface.

ADDRESS – The IPv6 address.

Example

```
root@obmc:~# ping6 -I eth0 fe80::1644:8fff:fe6d:a05
PING fe80::1644:8fff:fe6d:a05 (fe80::1644:8fff:fe6d:a05): 56 data bytes
64 bytes from fe80::1644:8fff:fe6d:a05: seq=0 ttl=64 time=0.281 ms
64 bytes from fe80::1644:8fff:fe6d:a05: seq=4 ttl=64 time=0.250 ms
64 bytes from fe80::1644:8fff:fe6d:a05: seq=5 ttl=64 time=0.266 ms
^C
--- fe80::1644:8fff:fe6d:a05 ping statistics ---
```

udhcpd Enables a client to acquire an IP address from a DHCP server.

Syntax

udhcpd

Example

```
root@obmc:~# udhcpd
udhcpd: started, v1.34.1
udhcpd: broadcasting discover
udhcpd: broadcasting select for 172.21.150.74, server 172.21.150.254
udhcpd: lease of 172.21.150.74 obtained from 172.21.150.254, lease time 28800
/etc/udhcpd.d/50default: Adding DNS 221.6.4.66
/etc/udhcpd.d/50default: Adding DNS 114.114.114.114
root@obmc:~#
```

Platform Health and Peripheral Monitoring

The commands listed in this section include displaying fan controller and LED related information.

fan_util.sh Queries the fan status or changes fan speed.

Syntax

fan_util.sh [**status**|**get**|**set**|**switch**] [**manu**|**auto**] <*fan*, **all**> <*pwm*>

-h – Display help and exit.

status – Keyword to display status information.

get – Keyword to display a parameter.

set – Keyword to change a parameter.

switch – Keyword to change to manual or automatic fan speed.

manu – Sets fan speed manually. ONLY for a **switch** command.

auto – Sets fan speed automatically. ONLY for a **switch** command.

fan – The fan number (1-6). ONLY for a **set** command.

all – Specifies all fans.

pwm – Fan speed percentage (30-100). ONLY for a **set** command.

Command Usage

It is not recommended that users manually change the fan speed.

Example

```
root@obmc:~# fan_util.sh set 3 60
root@obmc:~# fan_util.sh get
Fan 1 RPMs: 22375, 20406, (30%)
Fan 2 RPMs: 22554, 20406, (30%)
Fan 3 RPMs: 18795, 16647, (60%)
Fan 4 RPMs: 22375, 20227, (30%)
Fan 5 RPMs: 22375, 20227, (30%)
Fan 6 RPMs: 22375, 20406, (30%)
root@obmc:~#
```

Platform Management

The commands listed in this section include component power control, FRU EEPROM information, and time setting functions.

power_util.sh Displays platform power status and controls platform power.

Syntax

power_util.sh [-h] [cpu|bmc|machine] [status|reset|on|off|cycle]

-h – Display help and exit.

bmc – Keyword for the BMC component.

cpu – Keyword for the CPU component.

machine – Keyword for the whole of the machine.

status – Shows host CPU status information.

reset – Reset the host CPU or BMC.

on – Power on the host CPU.

off – Power off the host CPU.

cycle – Power cycle the whole machine (ONLY for a **machine** command).

Example

```
power_util.sh machine cycle    --Power cycle whole machine
power_util.sh cpu status      --Show host CPU status
power_util.sh cpu on          --Power on host CPU
power_util.sh bmc reset       --Reboot for BMC
```

timedatectl Query or set time, timezone, and NTP.

Syntax

timedatectl [-h] [options] [command]

-h – Display help and exit. (Lists valid options and commands.)

Example

```
root@obmc:~# timedatectl show
Timezone=Asia/Shanghai
LocalRTC=no
CanNTP=yes
NTP=yes
NTPSynchronized=no
TimeUSec=Tue 2024-01-09 11:57:07 CST
```

```
RTCTimeUSec=Tue 2024-01-09 11:57:07 CST
root@obmc:~#
```

Platform Troubleshooting

The commands listed in this section include Syslog, console log, and post code functions.

journalctl Queries the Syslog entries of the BMC.

Syntax

journalctl [*OPTIONS...*] [*MATCHES...*]

-h – Display help and exit. (Lists valid options for this command.)

Example

```
root@obmc:~# journalctl -k -n 10
Jul 29 08:03:16 obmc kernel: EXT4-fs (mmcblk0p1): recovery complete
Jul 29 08:03:16 obmc kernel: EXT4-fs (mmcblk0p1): mounted filesystem with
ordered data mode. Opts: (null). Quota mode: disabled.
Jul 29 08:04:07 obmc kernel: pcie_retimer: bad vermagic: kernel tainted.
Jul 29 08:04:07 obmc kernel: Disabling lock debugging due to kernel taint
Jul 29 08:04:07 obmc kernel: pcie_retimer: loading out-of-tree module taints
kernel.
Jul 29 08:04:07 obmc kernel: pcie_retimer 35-0019: virt_adap i2c registered.
Jul 29 08:04:15 obmc kernel: 8021q: adding VLAN 0 to HW filter on device eth0
Jul 29 08:04:37 obmc kernel: ftgmac100 1e670000.ftgmac eth0: NCSI: 'bad'
packet ignored for type 0x8a
Jul 29 08:05:25 obmc kernel: i2c i2c-34: new_device: Instantiated device
eeprom at 0x50
Jul 29 08:05:43 obmc kernel: ftgmac100 1e670000.ftgmac eth0: NCSI: 'bad'
packet ignored for type 0x8a

root@obmc:~#
```

Show CPU Console Log Displays the CPU console log file.

Syntax

cat /media/card/log/obmc-console.log

Example

```
root@obmc:~# root@obmc:~# cat /media/card/log/obmc-console.log
ci-info: | enp203s0d22 | False | . | .
| . | 68:93:2e:06:5b:88 |
[ OK ] Started Discard unused blocks once a week.
[ 92.024860] cloud-init[4491]: ci-info: | enp203s0d23 | False |
. | . | 68:93:2e:06:5b:89 |
[ OK ] Started Refresh fwupd metadata regularly.
```

```
[ 92.056984] cloud-init[4491]: ci-info: | enp203s0d8 | False |
. | . | . | 68:93:2e:06:5b:7a |
[ OK ] Started Daily rotation of log files.
[ 92.088938] cloud-init[4491]: ci-info: | enp34s0d22 | False |
. | . | . | 68:93:2e:06:75:c8 |
[ OK ] Started Daily man-db regeneration.
[ 92.121868] cloud-init[4491]: ci-info: | enp34s0d23 | False |
. | . | . | 68:93:2e:06:75:c9 |
[ OK ] Started Message of the Day.
[ 92.153008] cloud-init[4491]: ci-info: | enp34s0d8 | False |
. | . | . | 68:93:2e:06:75:ba |
[ OK ] Started Daily Cleanup of Temporary Directories.
[ 92.184961] cloud-init[4491]: ci-info: | enp37s0d22 | False |
. | . | . | 68:93:2e:06:92:18 |
[ OK ] Started Download data for ...ailed at package install time.
[ 92.236363] cloud-init[4491]: ci-info: | enp37s0d23 | False |
. | . | . | 68:93:2e:06:92:19 |
[ OK ] Started Check to see wheth...w version of Ubuntu available.
[ 92.272378] cloud-init[4491]: ci-info: | enp37s0d8 | False |
. | . | . | 68:93:2e:06:92:0a |
[ 92.308380] cloud-init[4491]: ci-info: | enp75s0d22 | False |
. | . | . | 68:93:2e:06:8c:48 |
[ OK ] Reached target Path Units.
[ OK ] Reached target Timer Units.
[ 92.308877] cloud-init[4491]: ci-info: | enp75s0d23 | False |
. | . | . | 68:93:2e:06:8c:49 |
[ 92.372376] cloud-init[4491]: ci-info: | enp75s0d8 | False |
. | . | . | 68:93:2e:06:8c:3a |
[ OK ] Listening on cloud-init hotplug hook socket.
[ 92.372859] cloud-init[4491]: ci-info: | enp78s0d22 | False |
. | . | . | 68:93:2e:06:74:d8 |
[ OK ] Listening on D-Bus System Message Bus Socket.
[ 92.419779] cloud-init[4491]: ci-info: | enp78s0d23 | False |
. | . | . | 68:93:2e:06:74:d9 |
Starting Docker Socket for the API...
[ 92.443340] cloud-init[4491]: ci-info: | enp78s0d8 | False |
. | . | . | 68:93:2e:06:74:ca |
[ 92.472374] cloud-init[4491]: ci-info: | ens11f0 | False |
. | . | . | b4:96:91:a4:06:d0 |
[ OK ] Listening on Open-iSCSI iscsid Socket.
[ 92.472875] cloud-init[4491]: ci-info: | ens11f1 | False |
. | . | . | b4:96:91:a4:06:d1 |
[ OK ] Listening on Socket unix for snap application lxd.daemon.
[ 92.519590] cloud-init[4491]: ci-info: | ens1f0np0 | False |
. | . | . | 0c:42:a1:ad:17:02 |
[ 92.552416] cloud-init[4491]: ci-info: | ens1f1np1 | False |
. | . | . | 0c:42:a1:ad:17:03 |
[ OK ] Listening on Socket unix f...p application lxd.user-daemon.
[ 92.552929] cloud-init[4491]: ci-info: | ens255f0np0 | False |
. | . | . | 10:70:fd:87:8b:50 |
Starting Socket activation for snappy daemon...
[ 92.603890] cloud-init[4491]: ci-info: | ens255f1np1 | False |
. | . | . | 10:70:fd:87:8b:51 |
[ OK ] Listening on UUID daemon activation socket.
[ 92.636064] cloud-init[4491]: ci-info: | ens3f0np0 | False |
. | . | . | 0c:42:a1:84:0b:e4 |
[ OK ] Finished Availability of block devices.
[ 92.668941] cloud-init[4491]: ci-info: | ens3f1np1 | False |
. | . | . | 0c:42:a1:84:0b:e5 |
[ OK ] Listening on Docker Socket for the API.
[ 92.699952] cloud-init[4491]: ci-info: | ens4f0 | False |
. | . | . | 6c:b3:11:21:33:20 |
[ OK ] Listening on Socket activation for snappy daemon.
[ 92.732424] cloud-init[4491]: ci-info: | ens4f1 | False |
. | . | . | 6c:b3:11:21:33:21 |
```

```
[ OK ] Reached target Socket Units.
[ 92.768428] cloud-init[4491]: ci-info: |      lo      | True |
127.0.0.1      | 255.0.0.0 | host | .      |
[ OK ] Reached target Basic System.
[ 92.800372] cloud-init[4491]: ci-info: |      lo      | True |
::1/128      | .      | host | .      |
[ 92.832415] cloud-init[4491]: ci-info: |      usb0     | False |
.      | .      | .      | ee:40:31:4a:a9:d0 |
Starting containerd container runtime...
[ 92.832923] cloud-init[4491]: ci-info: +-----+-----+-----+
-----+-----+-----+
[ OK ] Started D-Bus System Message Bus.
[ 92.869866] cloud-init[4491]: ci-info:
+++++Route IPv4
info+++++
[ 92.896373] cloud-init[4491]: ci-info: +-----+-----+-----+
-----+-----+-----+
[ OK ] Started Save initial kernel messages after boot.
[ 92.896914] cloud-init[4491]: ci-info: | Route | Destination | Gateway
| Genmask | Interface | Flags |
[ 92.952331] cloud-init[4491]: ci-info: +-----+-----+-----+
-----+-----+-----+
Starting Remove Stale Onli...t4 Metadata Check Snapshots...
[ 92.952904] cloud-init[4491]: ci-info: | 0 | 0.0.0.0 |
172.21.150.254 | 0.0.0.0 | eno1 | UG |
Starting Record successful boot for GRUB...
[ 93.008359] cloud-init[4491]: ci-info: | 1 | 172.21.150.0 | 0.0.0.0
| 255.255.255.0 | eno1 | U |
[ OK ] Started irqbalance daemon.
[ 93.040325] cloud-init[4491]: ci-info: +-----+-----+-----+
-----+-----+-----+
[ 93.068321] cloud-init[4491]: ci-info: +++++Route IPv6
info+++++
Starting Initialize hardware monitoring sensors...
[ 93.068840] cloud-init[4491]: ci-info: +-----+-----+-----+
-----+-----+
Starting Dispatcher daemon for systemd-networkd...
[ 93.116302] cloud-init[4491]: ci-info: | Route | Destination | Gateway |
Interface | Flags |
Starting Connect NVMe-oF s...s automatically during boot...
[ 93.144162] cloud-init[4491]: ci-info: +-----+-----+-----+
-----+-----+
[ 93.172300] cloud-init[4491]: ci-info: | 1 | fe80::/64 | :: |
eno1 | U |
Starting Authorization Manager...
[ 93.172861] cloud-init[4491]: ci-info: | 3 | local | :: |
eno1 | U |
[ 93.206608] cloud-init[4491]: ci-info: | 4 | multicast | :: |
eno1 | U |
Starting System Logging Service...
[ 93.206936] cloud-init[4491]: ci-info: +-----+-----+-----+
-----+-----+
Starting Self Monitoring a...g Technology (SMART) Daemon...
Starting Service for snap application lxd.activate...
[ OK ] Reached target Preparation for Logins.
Starting Snap Daemon...
Starting OpenBSD Secure Shell server...
Starting User Login Management...
Starting Thermal Daemon Service...
Starting Ubuntu FAN network setup...
Starting Disk Manager...
[ OK ] Started Dispatcher daemon for systemd-networkd.
[ OK ] Started Self Monitoring an...ing Technology (SMART) Daemon.
[ OK ] Finished Remove Stale Onli...ext4 Metadata Check Snapshots.
[ OK ] Started Thermal Daemon Service.
```

```
[ OK ] Started User Login Management.
[ OK ] Started System Logging Service.
[ OK ] Started OpenBSD Secure Shell server.
[ OK ] Finished Connect NVMe-oF s...ems automatically during boot.
[ OK ] Finished Record successful boot for GRUB.
[ OK ] Finished Ubuntu FAN network setup.
[ OK ] Started Authorization Manager.
[ OK ] Started Disk Manager.
[ OK ] Reached target Preparation for Remote File Systems.
[ OK ] Reached target Remote File Systems.
       Starting Modem Manager...
[ OK ] Started Regular background program processing daemon.
       Starting GRUB failed boot detection...
       Starting LSB: OpenIPMI Driver init script...
       Starting Permit User Sessions...
[ OK ] Started Unattended Upgrades Shutdown.
[ OK ] Finished Permit User Sessions.
[ OK ] Finished GRUB failed boot detection.
[ OK ] Started Modem Manager.
       Starting Hold until boot process finishes up...
       Starting Terminate Plymouth Boot Screen...
[ OK ] Started LSB: OpenIPMI Driver init script.
[ OK ] Finished Hold until boot process finishes up.
[ OK ] Started containerd container runtime.
[ OK ] Finished Terminate Plymouth Boot Screen.
       Starting Docker Application Container Engine...
[ OK ] Started Serial Getty on ttyS0.
       Starting Set console scheme...
[ OK ] Finished Set console scheme.
[ OK ] Created slice Slice /system/getty.
[ OK ] Started Getty on tty1.
[ OK ] Reached target Login Prompts.
[ 99.233096] habanalabs hl2: F/W failed processing CPU packet 5
[ 99.240420] habanalabs hl2: Failed to get current from sensor 1, error -5
[ 99.259071] habanalabs hl2: F/W failed processing CPU packet 5
[ 99.266142] habanalabs hl2: Failed to get current from sensor 1, error -5
[ OK ] Started Docker Application Container Engine.
[ OK ] Finished Initialize hardware monitoring sensors.
[ OK ] Started Snap Daemon.
       Starting Wait until snapd is fully seeded...
       Starting Time & Date Service...
[ OK ] Started Time & Date Service.
[ OK ] Finished Wait until snapd is fully seeded.
       Starting Apply the settings specified in cloud-config...
[ OK ] Finished Service for snap application lxd.activate.
[ 97.021831] cloud-init[5093]: Cloud-init v. 23.3.3-0ubuntu0~22.04.1
running 'modules:config' at Mon, 29 Jul 2024 08:16:29 +0000. Up 96.97
seconds.
[ OK ] Finished Apply the settings specified in cloud-config.
[ OK ] Reached target Multi-User System.
[ OK ] Reached target Graphical Interface.
       Starting Execute cloud user/final scripts...
       Starting Record Runlevel Change in UTMP...
[ OK ] Finished Record Runlevel Change in UTMP.
[ 97.523197] cloud-init[5104]: Cloud-init v. 23.3.3-0ubuntu0~22.04.1
running 'modules:final' at Mon, 29 Jul 2024 08:16:30 +0000. Up 97.47
seconds.
[ 97.575837] cloud-init[5104]: Cloud-init v. 23.3.3-0ubuntu0~22.04.1
finished at Mon, 29 Jul 2024 08:16:30 +0000. Datasource DataSourceNone. Up
97.57 seconds
[ 97.604381] cloud-init[5104]: 2024-07-29 08:16:30,163 -
cc_final_message.py[WARNING]: Used fallback datasource
[ OK ] Finished Execute cloud user/final scripts.
[ OK ] Reached target Cloud-init target.
```

```
Ubuntu 22.04.4 LTS AGS8200 ttyS0
AGS8200 login:
root@obmc:~#
```

Remote Control Host

The commands listed in this section include the SOL function.

sol.sh Switch the BMC console to the host CPU console.

Syntax

sol.sh

Example

```
root@obmc:~# sol.sh
You are in OBMC SOL session.
Use ~. to quit.
-----

ubuntu@AGS8200:~$
ubuntu@AGS8200:~$

-----
Exit from OBMC SOL session.

root@obmc:~#
```

Security Service

The commands listed in this section include SSH, SSL, and account management functions.

ssh SSH realizes a connection between the SSH client and a server by establishing a secure tunnel over the network.

Syntax

ssh [username]@[remote-host]

username – The user login name on the remote host.

remote-host – The IP address of the remote host.

Example

```
root@obmc:~# ssh root@172.21.150.11
Host '172.21.150.11' is not in the trusted hosts file.
(ssh-rsa fingerprint SHA256:tdZ4qtH5J6GGc8T5bpjH4iZsnHb1DPXiJyOINbQgEHc)
Do you want to continue connecting? (y/n) y
root@172.21.150.11's password:
```

openssl The OpenSSL software is a robust, commercial-grade, full-featured toolkit for general-purpose cryptography and secure communication.

Syntax

openssl

Example

```
root@obmc:~# openssl version -a
OpenSSL 1.1.1l 24 Aug 2021
built on: Wed Aug 23 06:19:28 2023 UTC
platform: linux-armv4
options: bn(64,32) des(long)
compiler: arm-openbmc-linux-gnueabi-gcc -march=armv7-a -mfpv4-d16 -
mfloat-
abi=hard -fstack-protector-strong-O2 -D_FORTIFY_SOURCE=2 -Wformat -Wformat-
sec
urity -Werror=format-security --sysroot=recipe-sysroot -O2 -pipe -g -
feliminate-
unused-debug-types -fmacro-prefix-map= -fdebug-prefix-map= -fdebug-prefix-
map= -fdebug-prefix-map
= -DOPENSSL_USE_NODELETE -DOPENSSL_PIC -DOPENSSL_CPUID_OBJ -
DOPENSSL_BN_ASM_MON
T -DOPENSSL_BN_ASM_GF2m -DSHA1_ASM -DSHA256_ASM -DSHA512_ASM -DKECCAK1600_ASM
-D
AES_ASM -DBSAES_ASM -DGHASH_ASM -DECP_NISTZ256_ASM -DPOLY1305_ASM -DNDEBUG
OPENSSLDIR: "/usr/lib/ssl-1.1"
ENGINESDIR: "/usr/lib/engines-1.1"
Seeding source: os-specific

root@obmc:~#
```

useradd Adds new user account.

Syntax

useradd [*options*] <*username*>

options – Linux options that apply to this command.

username – The user account name to add.

Example

```
root@obmc:~# useradd guest  
  
root@obmc:~#
```

3

Intelligent Platform Management Interface (IPMI)

This chapter includes the following sections:

- [“IPMI Overview” on page 31](#)
- [“BMC System Management” on page 33](#)
- [“Firmware Inventory” on page 35](#)
- [“Network Service” on page 35](#)
- [“Platform Health and Peripheral Monitoring” on page 37](#)
- [“Platform Management” on page 48](#)
- [“Platform Troubleshooting” on page 65](#)
- [“Remote Control Host” on page 68](#)
- [“Security Service” on page 69](#)

IPMI Overview

This chapter contains a full description of functions based on the Intelligent Platform Management Interface (IPMI) Specification v2.0. After installing **ipmitool** on the X86 (CPU) OS, you can execute BMC's IPMI functions on the X86 (CPU) OS via the in-band Enhanced Serial Peripheral Interface (eSPI) interface between X86 (CPU) and BMC. Each command is shown by a simple description, command syntax, and example.

Table 3: IPMI Commands

Command	Function
BMC System Management	
<code>ipmitool mc selftest</code>	Instructs the BMC to perform a self test.
<code>ipmitool chassis selftest</code>	Instructs the BMC to perform a self test.
<code>ipmitool session info</code>	Returns RMCP+ session information.
Firmware Inventory	
<code>ipmitool mc info</code>	Displays general system information.
Network Service	
<code>ipmitool lan print</code>	Displays the current configuration for a given channel.
<code>ipmitool lan set</code>	Sets parameters for the specified channel.
Platform Health and Peripheral Monitoring	
<code>ipmitool sensor list</code>	Lists sensors and thresholds in a wide table format.
<code>ipmitool sensor get</code>	Displays information for sensors specified by name.
<code>ipmitool sensor reading</code>	Displays the assigned sensor's value.
<code>ipmitool sdr</code>	Displays Sensor Data Repository (SDR) entries.
<code>ipmitool sensor threshold</code>	Sets sensor thresholds.
<code>ipmitool chassis identify</code>	Sets the UID LED to on/off.
Platform Management	
<code>ipmitool mc watchdog</code>	Configures the watchdog function of the BMC system.
<code>ipmitool fru list</code>	Displays all FRU EEPROM information.
<code>ipmitool chassis bootdev</code>	Sets the boot sequence for the host CPU.
<code>ipmitool mc getsysinfo</code>	Displays a list of host system information.
<code>ipmitool mc setsysinfo</code>	Sets a list of the host system information.
<code>ipmitool mc reset</code>	Instructs the BMC to perform a reset.
<code>ipmitool chassis status</code>	Displays information about the high-level status of the system chassis and main power subsystem.
<code>ipmitool chassis poh</code>	Displays the Power-On Hours counter.
<code>ipmitool chassis restart_cause</code>	Shows the restart cause of the x86 host.

Table 3: IPMI Commands (Continued)

Command	Function
<code>ipmitool chassis policy</code>	Configures and displays power restore policies.
<code>ipmitool chassis power</code>	Controls the x86 host power and displays the power status.
<code>ipmitool power</code>	Controls the x86 host power and displays the power status.
<code>ipmitool sel time</code>	Accesses the BMC's system time.
Platform Troubleshooting	
<code>ipmitool sel info</code>	Displays the SEL information.
<code>ipmitool sel list elist</code>	Displays SEL information and SEL log entries.
<code>ipmitool sel save</code>	Saves SEL records to a text file.
<code>ipmitool sel clear</code>	Clears all SEL logs.
Remote Control Host	
<code>ipmitool sol</code>	Activates sessions of Serial-over-LAN (SOL).
Security Service	
<code>ipmitool user summary</code>	Displays a summary of user ID information.
<code>ipmitool user list</code>	Displays a list of user information for the specified channel.
<code>ipmitool set name</code>	Sets the user name associated with the specified user ID.
<code>ipmitool user set password</code>	Sets the password for the specified user ID.
<code>ipmitool user disable</code>	Disables the user account with specified user ID.
<code>ipmitool user enable</code>	Enables the user account with specified user ID.
<code>ipmitool user test</code>	Determines whether a password complies with the rules.
<code>ipmitool channel info</code>	Displays information for the specified channel.
<code>ipmitool channel getaccess</code>	Displays user access information for a specified channel.
<code>ipmitool channel setaccess</code>	Configure user access information for the specified channel and user ID.
<code>ipmitool channel getciphers</code>	Displays the list of cipher suites supported for the specified application.

BMC System Management

The commands listed in this section include self test and session info.

ipmitool mc selftest Instructs the BMC to perform a self test. This command will return “passed” if the BMC successfully boots from the primary flash.

Syntax

ipmitool mc selftest

Example

```
root@obmc:~# ipmitool mc selftest
Selftest: passed

root@obmc:~#
```

ipmitool chassis selftest Instructs the BMC to perform a self test. This command will return “passed” if the BMC successfully boots from the primary flash.

Syntax

ipmitool chassis selftest

Example

```
root@obmc:~# ipmitool chassis selftest
Self Test Results      : passed

root@obmc:~#
```

ipmitool session info This command will return RMCP+ session information. Please use ipmitool with LAN to get session info.

Syntax

ipmitool session info <active | all | id 0xnnnnnnnn | handle 0xnn>

active – Display active session.

all – Display all sessions.

id – Display specified session id information.

0xnnnnnnnn – Session ID number.

handle – Display specified session handle id information.

0xnn – Session handle ID number.

Example

```
root@obmc:~# ipmitool -U root -P OpenBmc -I lanplus -H 10.102.8.111 session
info active
session handle          : 1
slot count              : 30
active sessions         : 1
user id                 : 1
privilege level         : ADMINISTRATOR
session type            : IPMIv2/RMCP+
channel number          : 0x01
console ip              : 10.102.8.111
console mac             : 00:00:00:00:00:00
console port            : 36607
root@obmc:~#
root@obmc:~# ipmitool -U root -P OpenBmc -I lanplus -H 10.102.8.111 session
info all
session handle          : 1
slot count              : 30
active sessions         : 1
user id                 : 1
privilege level         : ADMINISTRATOR
session type            : IPMIv2/RMCP+
channel number          : 0x01
console ip              : 10.102.8.111
console mac             : 00:00:00:00:00:00
console port            : 50070
root@obmc:~#
root@obmc:~# ipmitool -U root -P OpenBmc -I lanplus -H 10.102.8.111 session id
0x0f7a57ab
session handle          : 1
slot count              : 30
active sessions         : 2
user id                 : 2
privilege level         : ADMINISTRATOR
session type            : IPMIv2/RMCP+
channel number          : 0x01
console ip              : 10.102.8.111
console mac             : 00:00:00:00:00:00
console port            : 50230
root@obmc:~#
root@obmc:~# ipmitool -U root -P OpenBmc -I lanplus -H 10.102.8.111 session
info handle 0x01
session handle          : 1
slot count              : 30
active sessions         : 1
user id                 : 1
privilege level         : ADMINISTRATOR
session type            : IPMIv2/RMCP+
channel number          : 0x01
console ip              : 10.102.8.111
console mac             : 00:00:00:00:00:00
console port            : 39566
root@obmc:~#
```

Firmware Inventory

The commands listed in this section display firmware version and product information.

ipmitool mc info Display information including device revision, firmware revision, IPMI version supported, manufacturer ID, and information on additional device support.

Syntax

ipmitool mc info

Example

```
root@obmc:~# ipmitool mc info
Device ID           : 1
Device Revision     : 1
Firmware Revision   : 0.00
IPMI Version        : 2.0
Manufacturer ID     : 52587
Manufacturer Name    : Edgecore Networks Corporation
Product ID          : 2 (0x0002)
Product Name        : AGS8200
Device Available     : yes
Provides Device SDRs : no
Additional Device Support :
    Sensor Device
    SDR Repository Device
    FRU Inventory Device
Aux Firmware Rev Info :
    0x05
    0x00
    0x00
    0x00

root@obmc:~#
```

Network Service

The commands listed in this section include IP and network protocol functions.

ipmitool lan print Displays the current configuration for a given channel.

Syntax

ipmitool lan print <channel>

channel – The channel number.

Example

```
root@obmc:~# ipmitool lan print 1
Set in Progress          : Set Complete
Auth Type Support        :
Auth Type Enable         : Callback :
                          : User      :
                          : Operator  :
                          : Admin     :
                          : OEM        :
IP Address Source        : Static Address
IP Address                : 172.20.0.42
Subnet Mask               : 255.255.0.0
MAC Address               : 5e:51:34:ba:36:e6
BMC ARP Control           : ARP Responses Enabled, Gratuitous ARP Disabled
Default Gateway IP        : 0.0.0.0
Default Gateway MAC       : 00:00:00:00:00:00
802.1q VLAN ID           : Disabled
RMCP+ Cipher Suites      : 17
Cipher Suite Priv Max     : aaaaaaaaaaaaaa
                          : X=Cipher Suite Unused
                          : c=CALLBACK
                          : u=USER
                          : o=OPERATOR
                          : a=ADMIN
                          : O=OEM
Bad Password Threshold    : Not Available

root@obmc:~#
```

ipmitool lan set Sets parameters for the specified channel.

Syntax

ipmitool lan set <channel> <Parameter>

channel – The channel number.

Parameter –

ipaddr *ip-address* – Sets the IP address.

netmask *netmask* – Sets the network mask.

macaddr *mac-address* – Sets the MAC address.

defgw ipaddr *ip-address* – Sets the default gateway IP address.

defgw macaddr *mac-address* – Sets the default gateway MAC address.

ipsrc <static | dhcp> –

static – Manually configured static IP address.

dhcp – Address obtained by DHCP.

vlan id <off|id> –

off – Disable the VLAN function.

id – Enable the VLAN function and set the VLAN ID (1 to 4094).

vlan priority <priority> – Set the priority associated with VLAN frames.

priority – The priority of the VLAN frames (0 to 7).

Example

```
root@obmc:~# ipmitool lan set 1 ipaddr 172.20.0.111
Setting LAN IP Address to 172.20.0.111
root@obmc:~# ipmitool lan set 1 netmask 255.255.255.0
Setting LAN Subnet Mask to 255.255.255.0
root@obmc:~# ipmitool lan set 1 macaddr 14:44:8f:6d:09:66
Setting LAN MAC Address to 14:44:8f:6d:09:66
root@obmc:~# ipmitool lan set 1 defgw ipaddr 172.20.0.254
Setting LAN Default Gateway IP to 172.20.0.254
root@obmc:~# ipmitool lan set 1 defgw macaddr a4:bf:01:89:9a:59
Setting LAN Default Gateway MAC to a4:bf:01:89:9a:59
root@obmc:~# ipmitool lan set 1 ipsrc dhcp
root@obmc:~# ipmitool lan set 1 ipsrc static
root@obmc:~# ipmitool lan set 1 vlan id 1
root@obmc:~# ipmitool lan set 1 vlan id off
root@obmc:~# ipmitool lan set 1 vlan priority 7
root@obmc:~#
```

Platform Health and Peripheral Monitoring

The commands listed in this section include UID LED lighting, fan controller, sensors, PSU, and UCD-related information.

ipmitool sensor list Lists sensors and thresholds in a wide table format.

Syntax

ipmitool sensor list

Example

```
root@obmc:~# ipmitool sensor
CPU0_FIVRA_Iout | 90.800 | Amps | ok | na | na |
na | na | na | na |
CPU0_PVCCD_Iin | 1.716 | Amps | ok | na | na |
na | na | na | na |
CPU0_PVCCIN_Iout | 254.240 | Amps | ok | na | na |
na | na | na | na |
CPU1_FIVRA_Iout | 90.800 | Amps | ok | na | na |
na | na | na | na |
CPU1_PVCCD_Iin | 1.716 | Amps | ok | na | na |
na | na | na | na |
CPU1_PVCCIN_Iout | 45.400 | Amps | ok | na | na |
na | na | na | na |
FAON_CPU0_Iout | 22.700 | Amps | ok | na | na |
na | 70.370 | 72.640 | na |
FAON_CPU1_Iout | 20.430 | Amps | ok | na | na |
na | 70.370 | 72.640 | na |
P54V_Iout | 88.530 | Amps | ok | na | na |
na | na | na | na |
```

PSU4_54VSB_Iin	1.560	Amps	ok	na	na	
na	12.012	14.040	na			
PSU4_54VSB_Iout	4.540	Amps	ok	na	na	
na	70.370	72.640	na			
PSU5_54VSB_Iin	1.638	Amps	ok	na	na	
na	12.012	14.040	na			
PSU5_54VSB_Iout	6.810	Amps	ok	na	na	
na	70.370	72.640	na			
PSU6_54VSB_Iin	1.950	Amps	ok	na	na	
na	12.012	14.040	na			
PSU6_54VSB_Iout	6.810	Amps	ok	na	na	
na	70.370	72.640	na			
PSU7_54VSB_Iin	0.000	Amps	ok	na	na	
na	12.012	14.040	na			
PSU7_54VSB_Iout	0.000	Amps	ok	na	na	
na	70.370	72.640	na			
PSU8_54VSB_Iin	2.496	Amps	ok	na	na	
na	12.012	14.040	na			
PSU8_54VSB_Iout	43.130	Amps	ok	na	na	
na	70.370	72.640	na			
SW12_0V8_Iout	83.990	Amps	ok	na	na	
na	na	na	na			
SW34_0V8_Iout	90.800	Amps	ok	na	na	
na	na	na	na			
Pwm_1	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_2	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_3	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_4	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_5	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_6	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_7	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_8	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_9	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_10	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_11	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_12	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_13	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_14	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_15	19.600	unspecified	ok	na	na	
na	na	na	na			
Pwm_PSU4_54VSB_F	30.184	unspecified	ok	na	na	
na	na	na	na			
Pwm_PSU5_54VSB_F	30.184	unspecified	ok	na	na	
na	na	na	na			
Pwm_PSU6_54VSB_F	30.184	unspecified	ok	na	na	
na	na	na	na			
Pwm_PSU7_54VSB_F	16.072	unspecified	ok	na	na	
na	na	na	na			
Pwm_PSU8_54VSB_F	16.072	unspecified	ok	na	na	
na	na	na	na			

Fan_front_1		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_2		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_3		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_4		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_5		7350.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_6		7350.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_7		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_8		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_9		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_10		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_11		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_12		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_13		7350.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_14		7350.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_front_15		7154.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_1		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_2		8428.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_3		8428.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_4		8428.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_5		8232.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_6		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_7		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_8		8428.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_9		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_10		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_11		8820.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_12		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_13		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_14		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
Fan_rear_15		8624.000	RPM	ok	na	1764.000
1960.000	na	na	na			
PSU4_54VSB_Fan_S		8968.000	RPM	ok	na	na
na	na	na	na			
PSU5_54VSB_Fan_S		8968.000	RPM	ok	na	na
na	na	na	na			

Chapter 3 | Intelligent Platform Management Interface (IPMI)

Platform Health and Peripheral Monitoring

PSU6_54VSB_Fan_S	8968.000	RPM	ok	na	na	
na	na	na	na			
PSU7_54VSB_Fan_S	0.000	RPM	ok	na	na	
na	na	na	na			
PSU8_54VSB_Fan_S	10974.000	RPM	ok	na	na	
na	na	na	na			
CPU0_FIVRA_Pout	165.200	Watts	ok	na	na	
na	na	na	na			
CPU0_PVCCD_Pin	23.600	Watts	ok	na	na	
na	na	na	na			
CPU0_PVCCIN_Pout	495.600	Watts	ok	na	na	
na	na	na	na			
CPU1_FIVRA_Pout	153.400	Watts	ok	na	na	
na	na	na	na			
CPU1_PVCCD_Pin	23.600	Watts	ok	na	na	
na	na	na	na			
CPU1_PVCCIN_Pout	82.600	Watts	ok	na	na	
na	na	na	na			
FAON_CPU0_Pout	23.600	Watts	ok	na	na	
na	na	na	na			
FAON_CPU1_Pout	23.600	Watts	ok	na	na	
na	na	na	na			
PSU4_54VSB_Pin	354.000	Watts	ok	na	na	
na	849.600	896.800	na			
PSU4_54VSB_Pout	295.000	Watts	ok	na	na	
na	849.600	896.800	na			
PSU5_54VSB_Pin	365.800	Watts	ok	na	na	
na	849.600	896.800	na			
PSU5_54VSB_Pout	330.400	Watts	ok	na	na	
na	849.600	896.800	na			
PSU6_54VSB_Pin	448.400	Watts	ok	na	na	
na	849.600	896.800	na			
PSU6_54VSB_Pout	401.200	Watts	ok	na	na	
na	849.600	896.800	na			
PSU7_54VSB_Pin	0.000	Watts	ok	na	na	
na	849.600	896.800	na			
PSU7_54VSB_Pout	0.000	Watts	ok	na	na	
na	849.600	896.800	na			
PSU8_54VSB_Pin	566.400	Watts	ok	na	na	
na	849.600	896.800	na			
PSU8_54VSB_Pout	542.800	Watts	ok	na	na	
na	849.600	896.800	na			
PSU_Power_Total	566.400	Watts	ok	na	na	
na	1699.200	1805.400	na			
SW12_0V8_Pout	70.800	Watts	ok	na	na	
na	na	na	na			
SW34_0V8_Pout	70.800	Watts	ok	na	na	
na	na	na	na			
CPU0_FIVRA_Temp	36.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
CPU0_PVCCD_Temp	42.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
CPU0_PVCCIN_Temp	33.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
CPU1_FIVRA_Temp	37.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
CPU1_PVCCD_Temp	39.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
CPU1_PVCCIN_Temp	31.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
FAON_CPU0_Temp	41.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
FAON_CPU1_Temp	42.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			

HSBP1_Temp	27.000	degrees C	ok	na	7.000	
12.000	52.000	57.000	na			
HSBP2_Temp	26.000	degrees C	ok	na	7.000	
12.000	52.000	57.000	na			
HSBP3_Temp	26.000	degrees C	ok	na	7.000	
12.000	52.000	57.000	na			
LM75BD_MB	29.000	degrees C	ok	na	0.000	
5.000	110.000	115.000	na			
P54V_Temp	56.000	degrees C	ok	na	5.000	
10.000	68.000	70.000	na			
PDB_Temp	27.000	degrees C	ok	na	7.000	
12.000	52.000	57.000	na			
PSU4_54VSB_Temp	31.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
PSU5_54VSB_Temp	33.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
PSU6_54VSB_Temp	32.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
PSU7_54VSB_Temp	28.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
PSU8_54VSB_Temp	26.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
RISER2_Temp	29.000	degrees C	ok	na	7.000	
12.000	52.000	57.000	na			
RISER3_Temp	27.000	degrees C	ok	na	7.000	
12.000	52.000	57.000	na			
SW12_0V8_Temp	42.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
SW34_0V8_Temp	37.000	degrees C	ok	na	5.000	
10.000	60.000	70.000	na			
SWB_Temp	34.000	degrees C	ok	na	7.000	
12.000	52.000	57.000	na			
nvme0	28.884	degrees C	ok	na	0.000	
4.980	70.218	80.178	na			
nvme1	29.880	degrees C	ok	na	0.000	
4.980	70.218	80.178	na			
nvme2	29.880	degrees C	ok	na	0.000	
4.980	70.218	80.178	na			
nvme3	29.880	degrees C	ok	na	0.000	
4.980	70.218	80.178	na			
nvme4	29.880	degrees C	ok	na	0.000	
4.980	70.218	80.178	na			
nvme5	29.880	degrees C	ok	na	0.000	
4.980	70.218	80.178	na			
nvme6	29.880	degrees C	ok	na	0.000	
4.980	70.218	80.178	na			
nvme7	30.876	degrees C	ok	na	0.000	
4.980	70.218	80.178	na			
CPU0_FIVRA_Vout	1.180	Volts	ok	na	1.180	
1.180	2.360	na				
CPU0_PVCCD_Vout	1.180	Volts	ok	na	1.180	
1.180	1.180	1.180	na			
CPU0_PVCCIN_Vout	2.360	Volts	ok	na	1.180	
1.180	2.360	2.360	na			
CPU1_FIVRA_Vout	2.360	Volts	ok	na	1.180	
1.180	2.360	2.360	na			
CPU1_PVCCD_Vout	1.180	Volts	ok	na	1.180	
1.180	1.180	1.180	na			
CPU1_PVCCIN_Vout	2.360	Volts	ok	na	1.180	
1.180	2.360	2.360	na			
EHV_CPU0_Vout	1.794	Volts	ok	na	1.248	
1.404	2.184	2.340	na			
EHV_CPU1_Vout	1.794	Volts	ok	na	1.248	
1.404	2.184	2.340	na			

Chapter 3 | Intelligent Platform Management Interface (IPMI)

Platform Health and Peripheral Monitoring

```

FAON_CPU0_Vout | 1.180 | Volts | ok | na | 1.180 |
1.180 | 1.180 | 1.180 | na
FAON_CPU1_Vout | 1.180 | Volts | ok | na | 1.180 |
1.180 | 1.180 | 1.180 | na
P54V_Vout | 11.800 | Volts | ok | na | 1.180 |
1.180 | 11.800 | 11.800 | na
PSU4_54VSB_Vin | 227.740 | Volts | ok | na | 88.500 |
89.680 | 240.720 | 264.320 | na
PSU4_54VSB_Vout | 54.280 | Volts | ok | na | 50.740 |
50.740 | 59.000 | 59.000 | na
PSU5_54VSB_Vin | 226.560 | Volts | ok | na | 88.500 |
89.680 | 240.720 | 264.320 | na
PSU5_54VSB_Vout | 54.280 | Volts | ok | na | 50.740 |
50.740 | 59.000 | 59.000 | na
PSU6_54VSB_Vin | 226.560 | Volts | ok | na | 88.500 |
89.680 | 240.720 | 264.320 | na
PSU6_54VSB_Vout | 54.280 | Volts | ok | na | 50.740 |
50.740 | 59.000 | 59.000 | na
PSU7_54VSB_Vin | 0.000 | Volts | cr | na | 0.000 |
0.000 | 240.720 | 264.320 | na
PSU7_54VSB_Vout | 0.000 | Volts | cr | na | 0.000 |
0.000 | 12.980 | 14.160 | na
PSU8_54VSB_Vin | 227.740 | Volts | ok | na | 88.500 |
89.680 | 240.720 | 264.320 | na
PSU8_54VSB_Vout | 11.800 | Volts | ok | na | 10.620 |
11.800 | 12.980 | 14.160 | na
PVNN_MAIN_CPU0 | 1.009 | Volts | ok | na | 0.696 |
0.970 | 1.029 | 1.303 | na
PVNN_MAIN_CPU1 | 1.009 | Volts | ok | na | 0.696 |
0.970 | 1.029 | 1.303 | na
PVNN_PCH | 0.902 | Volts | ok | na | 0.627 |
0.853 | 0.941 | 1.166 | na
PVPP_HBM_CPU0 | 0.098 | Volts | ok | na | 0.000 |
0.000 | 2.744 | 15.582 | na
PVPP_HBM_CPU1 | 0.098 | Volts | ok | na | 0.000 |
0.000 | 2.744 | 15.582 | na
SW12_0V8_Vout | 1.180 | Volts | ok | na | 1.180 |
1.180 | 1.180 | 1.180 | na
SW34_0V8_Vout | 1.180 | Volts | ok | na | 1.180 |
1.180 | 1.180 | 1.180 | na
VBATT | 2.803 | Volts | ok | na | 2.097 |
2.391 | 3.606 | 3.900 | na
VCC1V05_PCH | 1.049 | Volts | ok | na | 0.735 |
1.000 | 1.078 | 1.362 | na
VCC1V8_PCH | 1.823 | Volts | ok | na | 1.254 |
1.725 | 1.862 | 2.332 | na
VCC3V3 | 3.332 | Volts | ok | na | 2.313 |
3.136 | 3.469 | 4.292 | na
VCC3V3_RISER | 3.332 | Volts | ok | na | 2.313 |
2.999 | 3.606 | 4.292 | na
VCC3V3_SB | 3.312 | Volts | ok | na | 2.313 |
3.214 | 3.391 | 4.292 | na
VCC5V | 6.102 | Volts | ok | na | 3.510 |
4.752 | 6.264 | 6.480 | na
VCC12V_CPU0_DIMM | 12.838 | Volts | ok | na | 8.428 |
4.214 | 14.994 | 15.582 | na
VCC12V_CPU1_DIMM | 12.740 | Volts | ok | na | 8.428 |
4.214 | 14.994 | 15.582 | na
VCC12V_HSBP | 12.740 | Volts | ok | na | 8.428 |
11.074 | 13.622 | 15.582 | na
VCC12V_RISER | 12.838 | Volts | ok | na | 8.428 |
11.074 | 13.622 | 15.582 | na
root@obmc:~#

```

ipmitool sensor get Displays information for sensors specified by name.

Syntax

ipmitool sensor get <id> ... [id]

id – The ID of the specified sensor.

Example

```
root@obmc:~# ipmitool sensor get VCC12V_RISER
Locating sensor record...
Sensor ID           : VCC12V_RISER (0xa7)
Entity ID           : 0.1
Sensor Type (Threshold) : Voltage
Sensor Reading       : 12.838 (+/- 0) Volts
Status               : ok
Lower Non-Recoverable : na
Lower Critical        : 8.428
Lower Non-Critical    : 11.074
Upper Non-Critical    : 13.622
Upper Critical        : 15.582
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-
root@obmc:~#
```

ipmitool sensor reading Display the assigned sensor's value.

Syntax

ipmitool sensor reading <id> ... [id]

id – The ID of the specified sensor.

Example

```
root@obmc:~# ipmitool sensor reading VCC12V_RISER
VCC12V_RISER      | 12.838
root@obmc:~#
```

ipmitool sdr Displays Sensor Data Repository (SDR) entries.

Syntax

ipmitool sdr <command> [options]

list | **elist** [option]

all – all SDR Records

full – full Sensor record

fru – FRU Locator Record

type [*option*]

Sensor_Type – Retrieve the state of the specified sensor. *Sensor_Type* can be specified either as a string or a hex value.

list – Get a list of available sensor types.

get <*Sensor_ID*> – Retrieve state of the first sensor matched by *Sensor_ID*.

info – Display information about the repository itself.

Example

```
root@obmc:~# ipmitool sdr info
SDR Version                : 0x51
Record Count               : 202
Free Space                 : unspecified
Most recent Addition       : NA
Most recent Erase          : NA
SDR overflow               : yes
SDR Repository Update Support : unspecified
Delete SDR supported       : no
Partial Add SDR supported  : no
Reserve SDR repository supported : yes
SDR Repository Alloc info supported : yes
root@obmc:~#
root@obmc:~# ipmitool sdr elist
CPU0_FIVRA_Iout | 00h | ok | 0.1 | 90.80 Amps
CPU0_PVCCD_Iin  | 01h | ok | 0.1 | 1.72 Amps
CPU0_PVCCIN_Iout | 02h | ok | 0.1 | 165.71 Amps
CPU1_FIVRA_Iout  | 03h | ok | 0.1 | 83.99 Amps
CPU1_PVCCD_Iin   | 04h | ok | 0.1 | 1.72 Amps
CPU1_PVCCIN_Iout | 05h | ok | 0.1 | 31.78 Amps
FAON_CPU0_Iout   | 06h | ok | 0.1 | 20.43 Amps
FAON_CPU1_Iout   | 07h | ok | 0.1 | 20.43 Amps
P54V_Iout        | 08h | ok | 0.1 | 102.15 Amps
PSU4_54VSB_Iin   | 09h | ok | 0.1 | 2.03 Amps
PSU4_54VSB_Iout  | 0Ah | ok | 0.1 | 6.81 Amps
PSU5_54VSB_Iin   | 0Bh | ok | 0.1 | 2.11 Amps
PSU5_54VSB_Iout  | 0Ch | ok | 0.1 | 9.08 Amps
PSU6_54VSB_Iin   | 0Dh | ok | 0.1 | 2.42 Amps
PSU6_54VSB_Iout  | 0Eh | ok | 0.1 | 9.08 Amps
PSU7_54VSB_Iin   | 0Fh | ok | 0.1 | 0 Amps
PSU7_54VSB_Iout  | 10h | ok | 0.1 | 0 Amps
PSU8_54VSB_Iin   | 11h | ok | 0.1 | 2.26 Amps
PSU8_54VSB_Iout  | 12h | ok | 0.1 | 38.59 Amps
SW12_0V8_Iout    | 13h | ok | 0.1 | 83.99 Amps
SW34_0V8_Iout    | 14h | ok | 0.1 | 90.80 Amps
Pwm_1            | 15h | ok | 0.1 | 19.60 unspecifi
Pwm_2            | 16h | ok | 0.1 | 19.60 unspecifi
Pwm_3            | 17h | ok | 0.1 | 19.60 unspecifi
Pwm_4            | 18h | ok | 0.1 | 19.60 unspecifi
Pwm_5            | 19h | ok | 0.1 | 19.60 unspecifi
Pwm_6            | 1Ah | ok | 0.1 | 19.60 unspecifi
Pwm_7            | 1Bh | ok | 0.1 | 19.60 unspecifi
Pwm_8            | 1Ch | ok | 0.1 | 19.60 unspecifi
Pwm_9            | 1Dh | ok | 0.1 | 19.60 unspecifi
Pwm_10           | 1Eh | ok | 0.1 | 19.60 unspecifi
Pwm_11           | 1Fh | ok | 0.1 | 19.60 unspecifi
Pwm_12           | 20h | ok | 0.1 | 19.60 unspecifi
Pwm_13           | 21h | ok | 0.1 | 19.60 unspecifi
Pwm_14           | 22h | ok | 0.1 | 19.60 unspecifi
```

Pwm_15	23h ok 0.1 19.60 unspecifi
Pwm_PSU4_54VSB_F	24h ok 0.1 30.18 unspecifi
Pwm_PSU5_54VSB_F	25h ok 0.1 30.18 unspecifi
Pwm_PSU6_54VSB_F	26h ok 0.1 30.18 unspecifi
Pwm_PSU7_54VSB_F	27h ok 0.1 16.07 unspecifi
Pwm_PSU8_54VSB_F	28h ok 0.1 16.07 unspecifi
Fan_front_1	29h ok 0.1 7154 RPM
Fan_front_2	2Ah ok 0.1 7154 RPM
Fan_front_3	2Bh ok 0.1 7154 RPM
Fan_front_4	2Ch ok 0.1 7350 RPM
Fan_front_5	2Dh ok 0.1 7350 RPM
Fan_front_6	2Eh ok 0.1 7154 RPM
Fan_front_7	2Fh ok 0.1 7154 RPM
Fan_front_8	30h ok 0.1 7154 RPM
Fan_front_9	31h ok 0.1 7350 RPM
Fan_front_10	32h ok 0.1 7154 RPM
Fan_front_11	33h ok 0.1 7350 RPM
Fan_front_12	34h ok 0.1 7350 RPM
Fan_front_13	35h ok 0.1 7350 RPM
Fan_front_14	36h ok 0.1 7154 RPM
Fan_front_15	37h ok 0.1 7154 RPM
Fan_rear_1	38h ok 0.1 8624 RPM
Fan_rear_2	39h ok 0.1 8428 RPM
Fan_rear_3	3Ah ok 0.1 8428 RPM
Fan_rear_4	3Bh ok 0.1 8232 RPM
Fan_rear_5	3Ch ok 0.1 8428 RPM
Fan_rear_6	3Dh ok 0.1 8624 RPM
Fan_rear_7	3Eh ok 0.1 8624 RPM
Fan_rear_8	3Fh ok 0.1 8624 RPM
Fan_rear_9	40h ok 0.1 8624 RPM
Fan_rear_10	41h ok 0.1 8624 RPM
Fan_rear_11	42h ok 0.1 8624 RPM
Fan_rear_12	43h ok 0.1 8624 RPM
Fan_rear_13	44h ok 0.1 8624 RPM
Fan_rear_14	45h ok 0.1 8624 RPM
Fan_rear_15	46h ok 0.1 8624 RPM
PSU4_54VSB_Fan_S	47h ok 0.1 8968 RPM
PSU5_54VSB_Fan_S	48h ok 0.1 8968 RPM
PSU6_54VSB_Fan_S	49h ok 0.1 8968 RPM
PSU7_54VSB_Fan_S	4Ah ok 0.1 0 RPM
PSU8_54VSB_Fan_S	4Bh ok 0.1 10148 RPM
CPU0_FIVRA_Pout	4Ch ok 0.1 165.20 Watts
CPU0_PVCCD_Pin	4Dh ok 0.1 23.60 Watts
CPU0_PVCCIN_Pout	4Eh ok 0.1 318.60 Watts
CPU1_FIVRA_Pout	4Fh ok 0.1 153.40 Watts
CPU1_PVCCD_Pin	50h ok 0.1 23.60 Watts
CPU1_PVCCIN_Pout	51h ok 0.1 59 Watts
FAON_CPU0_Pout	52h ok 0.1 23.60 Watts
FAON_CPU1_Pout	53h ok 0.1 23.60 Watts
PSU4_54VSB_Pin	54h ok 0.1 448.40 Watts
PSU4_54VSB_Pout	55h ok 0.1 413 Watts
PSU5_54VSB_Pin	56h ok 0.1 483.80 Watts
PSU5_54VSB_Pout	57h ok 0.1 448.40 Watts
PSU6_54VSB_Pin	58h ok 0.1 554.60 Watts
PSU6_54VSB_Pout	59h ok 0.1 495.60 Watts
PSU7_54VSB_Pin	5Ah ok 0.1 0 Watts
PSU7_54VSB_Pout	5Bh ok 0.1 0 Watts
PSU8_54VSB_Pin	5Ch ok 0.1 507.40 Watts
PSU8_54VSB_Pout	5Dh ok 0.1 483.80 Watts
PSU_Power_Total	5Eh ok 0.1 507.40 Watts
SW12_0V8_Pout	5Fh ok 0.1 70.80 Watts
SW34_0V8_Pout	60h ok 0.1 70.80 Watts
CPU0_FIVRA_Temp	61h ok 0.1 36 degrees C
CPU0_PVCCD_Temp	62h ok 0.1 41 degrees C
CPU0_PVCCIN_Temp	63h ok 0.1 30 degrees C

CPU1_FIVRA_Temp	64h	ok	0.1	37 degrees C
CPU1_PVCCD_Temp	65h	ok	0.1	38 degrees C
CPU1_PVCCIN_Temp	66h	ok	0.1	29 degrees C
FAON_CPU0_Temp	67h	ok	0.1	41 degrees C
FAON_CPU1_Temp	68h	ok	0.1	42 degrees C
HSBP1_Temp	69h	ok	0.1	27 degrees C
HSBP2_Temp	6Ah	ok	0.1	26 degrees C
HSBP3_Temp	6Bh	ok	0.1	26 degrees C
LM75BD_MB	6Ch	ok	0.1	28 degrees C
P54V_Temp	6Dh	ok	0.1	57 degrees C
PDB_Temp	6Eh	ok	0.1	27 degrees C
PSU4_54VSB_Temp	6Fh	ok	0.1	32 degrees C
PSU5_54VSB_Temp	70h	ok	0.1	33 degrees C
PSU6_54VSB_Temp	71h	ok	0.1	32 degrees C
PSU7_54VSB_Temp	72h	ok	0.1	28 degrees C
PSU8_54VSB_Temp	73h	ok	0.1	26 degrees C
RISER2_Temp	74h	ok	0.1	29 degrees C
RISER3_Temp	75h	ok	0.1	27 degrees C
SW12_0V8_Temp	76h	ok	0.1	42 degrees C
SW34_0V8_Temp	77h	ok	0.1	37 degrees C
SWB_Temp	78h	ok	0.1	34 degrees C
nvme0	79h	ok	0.1	28.88 degrees C
nvme1	7Ah	ok	0.1	29.88 degrees C
nvme2	7Bh	ok	0.1	30.88 degrees C
nvme3	7Ch	ok	0.1	30.88 degrees C
nvme4	7Dh	ok	0.1	29.88 degrees C
nvme5	7Eh	ok	0.1	29.88 degrees C
nvme6	7Fh	ok	0.1	29.88 degrees C
nvme7	80h	ok	0.1	30.88 degrees C
CPU0_FIVRA_Vout	81h	ok	0.1	1.18 Volts
CPU0_PVCCD_Vout	82h	ok	0.1	1.18 Volts
CPU0_PVCCIN_Vout	83h	ok	0.1	2.36 Volts
CPU1_FIVRA_Vout	84h	ok	0.1	2.36 Volts
CPU1_PVCCD_Vout	85h	ok	0.1	1.18 Volts
CPU1_PVCCIN_Vout	86h	ok	0.1	2.36 Volts
EHV_CPU0_Vout	87h	ok	0.1	1.79 Volts
EHV_CPU1_Vout	88h	ok	0.1	1.79 Volts
FAON_CPU0_Vout	89h	ok	0.1	1.18 Volts
FAON_CPU1_Vout	8Ah	ok	0.1	1.18 Volts
P54V_Vout	8Bh	ok	0.1	11.80 Volts
PSU4_54VSB_Vin	8Ch	ok	0.1	226.56 Volts
PSU4_54VSB_Vout	8Dh	ok	0.1	54.28 Volts
PSU5_54VSB_Vin	8Eh	ok	0.1	226.56 Volts
PSU5_54VSB_Vout	8Fh	ok	0.1	54.28 Volts
PSU6_54VSB_Vin	90h	ok	0.1	226.56 Volts
PSU6_54VSB_Vout	91h	ok	0.1	54.28 Volts
PSU7_54VSB_Vin	92h	lcr	0.1	0 Volts
PSU7_54VSB_Vout	93h	lcr	0.1	0 Volts
PSU8_54VSB_Vin	94h	ok	0.1	227.74 Volts
PSU8_54VSB_Vout	95h	ok	0.1	11.80 Volts
PVNN_MAIN_CPU0	96h	ok	0.1	1.01 Volts
PVNN_MAIN_CPU1	97h	ok	0.1	1.01 Volts
PVNN_PCH	98h	ok	0.1	0.90 Volts
PVPP_HBM_CPU0	99h	ok	0.1	0.10 Volts
PVPP_HBM_CPU1	9Ah	ok	0.1	0.10 Volts
SW12_0V8_Vout	9Bh	ok	0.1	1.18 Volts
SW34_0V8_Vout	9Ch	ok	0.1	1.18 Volts
VBATT	9Dh	ok	0.1	2.80 Volts
VCC1V05_PCH	9Eh	ok	0.1	1.05 Volts
VCC1V8_PCH	9Fh	ok	0.1	1.82 Volts
VCC3V3	A0h	ok	0.1	3.31 Volts
VCC3V3_RISER	A1h	ok	0.1	3.33 Volts
VCC3V3_SB	A2h	ok	0.1	3.31 Volts
VCC5V	A3h	ok	0.1	6.10 Volts
VCC12V_CPU0_DIMM	A4h	ok	0.1	12.84 Volts

```
VCC12V_CPU1_DIMM | A5h | ok | 0.1 | 12.84 Volts
VCC12V_HSBP      | A6h | ok | 0.1 | 12.74 Volts
VCC12V_RISER     | A7h | ok | 0.1 | 12.84 Volts
root@obmc:~#
```

ipmitool sensor threshold Sets sensor thresholds.

Syntax

ipmitool sensor threshold <id> <threshold> <setting>

id – The name of the sensor for which threshold is to be set.

threshold – The threshold to set:

unr = upper non-recoverable

ucr = upper critical

unc = upper non-critical

lnc = lower non-critical

lcr = lower critical

lnr = lower non-recoverable

setting – The value of the sensor threshold setting.

Example

```
root@obmc:~# ipmitool sensor threshold VCC12V_RISER unc 12
Locating sensor record 'VCC12V_RISER'...
Setting sensor "VCC12V_RISER" Upper Non-Critical threshold to 12.000
root@obmc:~#
```

ipmitool chassis identify Sets the UID LED to on/off.

Syntax

ipmitool chassis identify [**force** | *time*]

force – No timeout value is specified (indefinite).

time – Sets the timeout to the specified value of time in seconds.

Default

15 seconds (when **force** or *time* are not specified)

Example

```
root@obmc:~# ipmitool chassis identify
Chassis identify interval: default (15 seconds)
root@obmc:~#
root@obmc:~# ipmitool chassis identify force
Chassis identify interval: indefinite
```

```
root@obmc:~#  
root@obmc:~# ipmitool chassis identify 5  
Chassis identify interval: 5 seconds  
root@obmc:~#
```

Platform Management

The commands listed in this section include Watchdog, FRU EEPROM, Boot Setting, sysinfo, power control, restart cause, and time setting functions.

ipmitool mc watchdog Configures the watchdog function of the BMC system.

Syntax

ipmitool mc watchdog [*command*] <**get**|**reset**|**set**>

get – Get current settings.

reset – Restart watchdog timer based on the most recent settings.

set <*option*[=*value*]> [<*option*[=*value*]> ...] – Set watchdog settings.

timeout=<1-6553> – Initial countdown value in seconds.

use=<**frb2**|**post**|**osload**|**sms**|**oem**>– Timer use.

clear=<**frb2**|**post**|**osload**|**sms**|**oem**>– Clear timer use expiration flag, can be specified multiple times.

action=<**reset**|**poweroff**|**cycle**|**none**>– Timer action.

nolog – Don't log the timer use.

dontstop – Don't stop the timer while applying settings.

Example

```
root@obmc:~# ipmitool mc watchdog set timeout=10 use=sms action=none nolog  
dontstop  
Watchdog Timer was successfully configured  
root@obmc:~#  
root@obmc:~# ipmitool mc watchdog get  
Watchdog Timer Use:      SMS/OS (0x84)  
Watchdog Timer Is:       Stopped  
Watchdog Timer Logging:  Off  
Watchdog Timer Action:   No action (0x00)  
Pre-timeout interrupt:   None  
Pre-timeout interval:    0 seconds  
Timer Expiration Flags:  None (0x00)  
Initial Countdown:       10.0 sec  
Present Countdown:       10.0 sec  
root@obmc:~#  
root@obmc:~# ipmitool mc watchdog reset  
IPMI Watchdog Timer Reset -  countdown restarted!  
root@obmc:~#
```

ipmitool fru list Displays all FRU EEPROM information.

Syntax

ipmitool fru list

Example

```
root@obmc:~# ipmitool fru list
FRU Device Description : Builtin FRU Device (ID 0)
Device not present (Requested sensor, data, or record not found)

FRU Device Description : UNKNOWN (ID 3)
Chassis Type           : Other
Board Mfg Date         : Sun Dec 24 19:01:00 2023 UTC
Board Mfg              : Habana labs
Board Product          : HL-225
Board Serial           : AN51009197
Board Part Number      : N08GL0AIG029A
Board Extra            : vendor accton
Product Manufacturer   : Habana labs
Product Name           : HL-225
Product Part Number    : F08GL0AIG032A
Product Version        : R0F V3A
Product Serial         : AN51009197

FRU Device Description : RISER-3 Board (ID 5)
Board Mfg Date         : Thu Jun 27 08:00:00 2024 UTC
Board Mfg              : Edgecore
Board Product          : RISER-3 Board
Board Serial           : RD00000039
Board Part Number      : 142000003308A
Board Extra            : R0A
Board Extra            : N/A
Board Extra            : N/A
Board Extra            : N/A
Product Manufacturer   : N/A
Product Name           : N/A
Product Part Number    : N/A
Product Version        : N/A
Product Serial         : N/A
Product Asset Tag      : N/A
Product Extra          : N/A
Product Extra          : N/A
Product Extra          : N/A

FRU Device Description : Fan15 Board (ID 9)
Board Mfg Date         : Thu Jun 27 08:00:00 2024 UTC
Board Mfg              : Edgecore
Board Product          : Fan Board
Board Serial           : RD00000057
Board Part Number      : 142000003750H
Board Extra            : R0A
Board Extra            : N/A
Board Extra            : N/A
Board Extra            : N/A
Product Manufacturer   : N/A
Product Name           : N/A
Product Part Number    : N/A
Product Version        : N/A
Product Serial         : N/A
Product Asset Tag      : N/A
Product Extra          : N/A
Product Extra          : N/A
```

```
Product Extra          : N/A

FRU Device Description : Fan5 Board (ID 23)
Board Mfg Date         : Thu Jun 27 08:00:00 2024 UTC
Board Mfg              : Edgecore
Board Product          : Fan Board
Board Serial           : RD00000047
Board Part Number      : 142000003750H
Board Extra            : R0A
Board Extra            : N/A
Board Extra            : N/A
Board Extra            : N/A
Product Manufacturer   : N/A
Product Name           : N/A
Product Part Number    : N/A
Product Version        : N/A
Product Serial         : N/A
Product Asset Tag      : N/A
Product Extra          : N/A
Product Extra          : N/A
Product Extra          : N/A

FRU Device Description : UNKNOWN (ID 28)
Chassis Type           : Other
Board Mfg Date         : Mon Dec 25 09:15:00 2023 UTC
Board Mfg              : Habana labs
Board Product          : HL-225
Board Serial           : AN51009270
Board Part Number      : N08GL0AIG029A
Board Extra            : vendor accton
Product Manufacturer   : Habana labs
Product Name           : HL-225
Product Part Number    : F08GL0AIG032A
Product Version        : R0F V3A
Product Serial         : AN51009270

FRU Device Description : Fan2 Board (ID 34)
Board Mfg Date         : Thu Jun 27 08:00:00 2024 UTC
Board Mfg              : Edgecore
Board Product          : Fan Board
Board Serial           : RD00000044
Board Part Number      : 142000003750H
Board Extra            : R0A
Board Extra            : N/A
Board Extra            : N/A
Board Extra            : N/A
Product Manufacturer   : N/A
Product Name           : N/A
Product Part Number    : N/A
Product Version        : N/A
Product Serial         : N/A
Product Asset Tag      : N/A
Product Extra          : N/A
Product Extra          : N/A
Product Extra          : N/A

FRU Device Description : UNKNOWN (ID 35)
Chassis Type           : Other
Board Mfg Date         : Mon Dec 25 01:57:00 2023 UTC
Board Mfg              : Habana labs
Board Product          : HL-225
Board Serial           : AN51009208
Board Part Number      : N08GL0AIG029A
Board Extra            : vendor accton
Product Manufacturer   : Habana labs
```

Product Name : HL-225
Product Part Number : F08GLOAIG032A
Product Version : R0F V3A
Product Serial : AN51009208

FRU Device Description : Fan4 Board (ID 36)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000046
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : HSBP F1-2 Board (ID 38)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : HSBP-F1 Board
Board Serial : RD00000041
Board Part Number : 142000003246H
Board Extra : R0B
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : HSBP Adapter BRD (ID 39)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : HSBP Adapter Board
Board Serial : RD00000033
Board Part Number : 142000003746H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : PDB Board (ID 42)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : PDB Board
Board Serial : RD00000035
Board Part Number : 142000003749H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Fan8 Board (ID 45)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000050
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : HSBP F1-1 Board (ID 53)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : HSBP-F1 Board
Board Serial : RD00000040
Board Part Number : 142000003246H
Board Extra : R0B
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Fan6 Board (ID 57)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan6 Board
Board Serial : RD00000048

Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Fan13 Board (ID 63)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000055
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Main Board (ID 77)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Main Board
Board Serial : RD00000031
Board Part Number : 142000003751H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : Edgecore
Product Name : AGS8200
Product Part Number : F00DC8280001H
Product Version : R0A
Product Serial : RD00000060
Product Asset Tag : N/A
Product Extra : A8:27:C8:BF:FF:78
Product Extra : 2
Product Extra : N/A

FRU Device Description : HLS-2H-Universal (ID 79)
Board Mfg Date : Wed Dec 13 10:59:00 2023 UTC
Board Mfg : WIWYNN
Board Product : HLS-2H-Universal Baseboard
Board Serial : B9104B10000G33900056N001
Board Part Number : B91.04B10.000G
Board Extra : NA

FRU Device Description : Fan12 Board (ID 87)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC

Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000054
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Middle BP Board (ID 93)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Middle BP Board
Board Serial : RD00000034
Board Part Number : 142000003748H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Fan7 Board (ID 95)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000049
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Fan14 Board (ID 103)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000056
Board Part Number : 142000003750H
Board Extra : R0A

```
Board Extra      : N/A
Board Extra      : N/A
Board Extra      : N/A
Product Manufacturer : N/A
Product Name      : N/A
Product Part Number : N/A
Product Version    : N/A
Product Serial     : N/A
Product Asset Tag   : N/A
Product Extra      : N/A
Product Extra      : N/A
Product Extra      : N/A
```

```
FRU Device Description : UNKNOWN (ID 107)
Board Mfg Date         : Thu Jun 27 08:00:00 2024 UTC
Board Mfg              : Edgecore
Board Product          : RISER-2 Board
Board Serial           : RD00000037
Board Part Number      : 142000003307A
Board Extra            : R0A
Board Extra            : N/A
Board Extra            : N/A
Board Extra            : N/A
Product Manufacturer    : N/A
Product Name           : N/A
Product Part Number     : N/A
Product Version         : N/A
Product Serial          : N/A
Product Asset Tag       : N/A
Product Extra           : N/A
Product Extra           : N/A
Product Extra           : N/A
```

```
FRU Device Description : Intel(R) Etherne (ID 116)
Board Mfg Date         : Tue Aug 9 12:00:00 2022 UTC
Board Mfg              : Intel Corporation
Board Product          : Intel(R) Ethernet Network Adapter E810-CQDA2 for OCP
                        3.0
Board Serial           : 6CFE54340760
Board Part Number      : MM#983094
Board Extra            : M12947-007
Board Extra            : E810CQDA20CPV3G
Product Manufacturer    : Intel Corporation
Product Name           : Intel(R) Ethernet Network Adapter E810-CQDA2 for OCP
                        3.0
Product Part Number     : MM#983094
Product Version         : M12947-007
Product Serial          : 6CFE54340760
Product Asset Tag       : 01
```

```
FRU Device Description : UNKNOWN (ID 122)
Chassis Type           : Other
Board Mfg Date         : Mon Dec 25 13:47:00 2023 UTC
Board Mfg              : Habana labs
Board Product          : HL-225
Board Serial           : AN51009142
Board Part Number      : N08GL0AIG029A
Board Extra            : vendor accton
Product Manufacturer    : Habana labs
Product Name           : HL-225
Product Part Number     : F08GL0AIG032A
Product Version         : R0F V3A
Product Serial          : AN51009142
```

```
FRU Device Description : Fan11 Board (ID 125)
```

Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000053
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Fan9 Board (ID 134)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000051
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : BMC Card (ID 135)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : BMC Card
Board Serial : RD00000036
Board Part Number : 142000003309A
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : Fan1 Board (ID 140)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000043
Board Part Number : 142000003750H

Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : UNKNOWN (ID 146)
Chassis Type : Other
Board Mfg Date : Mon Dec 25 09:43:00 2023 UTC
Board Mfg : Habana labs
Board Product : HL-225
Board Serial : AN51009067
Board Part Number : N08GL0AIG029A
Board Extra : vendor accton
Product Manufacturer : Habana labs
Product Name : HL-225
Product Part Number : F08GL0AIG032A
Product Version : R0F V3A
Product Serial : AN51009067

FRU Device Description : DPS-2700AB-1 A (ID 153)
Product Manufacturer : DELTA
Product Name : DPS-2700AB-1 A
Product Part Number : 00000000000000
Product Version : S1
Product Serial : KPID444025U

FRU Device Description : Fan10 Board (ID 181)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000052
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : UNKNOWN (ID 183)
Chassis Type : Other
Board Mfg Date : Sun Dec 24 21:16:00 2023 UTC
Board Mfg : Habana labs
Board Product : HL-225
Board Serial : AN51009221
Board Part Number : N08GL0AIG029A
Board Extra : vendor accton
Product Manufacturer : Habana labs
Product Name : HL-225

Product Part Number : F08GL0AIG032A
Product Version : R0F V3A
Product Serial : AN51009221

FRU Device Description : HSBP F1-3 Board (ID 194)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : HSBP-F1 Board
Board Serial : RD00000042
Board Part Number : 142000003246H
Board Extra : R0B
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : DPS-2700AB-1 A (ID 204)
Product Manufacturer : DELTA
Product Name : DPS-2700AB-1 A
Product Part Number : 00000000000000
Product Version : S1
Product Serial : KPID444025T

FRU Device Description : Fan3 Board (ID 213)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : Fan Board
Board Serial : RD00000045
Board Part Number : 142000003750H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A
Product Serial : N/A
Product Asset Tag : N/A
Product Extra : N/A
Product Extra : N/A
Product Extra : N/A

FRU Device Description : PCIe Switch BRD. (ID 215)
Board Mfg Date : Thu Jun 27 08:00:00 2024 UTC
Board Mfg : Edgecore
Board Product : PCIe Switch Board
Board Serial : RD00000032
Board Part Number : 142000003752H
Board Extra : R0A
Board Extra : N/A
Board Extra : N/A
Board Extra : N/A
Product Manufacturer : N/A
Product Name : N/A
Product Part Number : N/A
Product Version : N/A

```
Product Serial      : N/A
Product Asset Tag   : N/A
Product Extra       : N/A
Product Extra       : N/A
Product Extra       : N/A

FRU Device Description : HL-225 (ID 217)
Chassis Type        : Other
Board Mfg Date       : Mon Dec 25 12:21:00 2023 UTC
Board Mfg           : Habana labs
Board Product        : HL-225
Board Serial         : AN51009112
Board Part Number    : N08GL0AIG029A
Board Extra          : vendor accton
Product Manufacturer : Habana labs
Product Name         : HL-225
Product Part Number  : F08GL0AIG032A
Product Version      : R0F V3A
Product Serial       : AN51009112

FRU Device Description : UNKNOWN (ID 243)
Chassis Type        : Other
Board Mfg Date       : Mon Dec 25 01:59:00 2023 UTC
Board Mfg           : Habana labs
Board Product        : HL-225
Board Serial         : AN51009205
Board Part Number    : N08GL0AIG029A
Board Extra          : vendor accton
Product Manufacturer : Habana labs
Product Name         : HL-225
Product Part Number  : F08GL0AIG032A
Product Version      : R0F V3A
Product Serial       : AN51009205

FRU Device Description : RISER-2 Board (ID 248)
Board Mfg Date       : Thu Jun 27 08:00:00 2024 UTC
Board Mfg           : Edgecore
Board Product        : RISER-2 Board
Board Serial         : RD00000038
Board Part Number    : 142000003307A
Board Extra          : R0A
Board Extra          : N/A
Board Extra          : N/A
Board Extra          : N/A
Product Manufacturer : N/A
Product Name         : N/A
Product Part Number  : N/A
Product Version      : N/A
Product Serial       : N/A
Product Asset Tag     : N/A
Product Extra        : N/A
Product Extra        : N/A
Product Extra        : N/A
root@obmc:~#
```

ipmitool chassis bootdev Sets the boot sequence for the host CPU. Currently, only PXE and BIOS options are supported.

Syntax

ipmitool chassis bootdev <device>

device –

pxe – Force PXE boot.

bios – Force boot into BIOS Setup.

Example

```
root@obmc:~# ipmitool chassis bootdev pxe options=efiboot
Set Boot Device to pxe
root@obmc:~# ipmitool chassis bootdev bios
Set Boot Device to bios
root@obmc:~#
```

ipmitool mc getsysinfo Displays a list of host system information.

Syntax

ipmitool mc getsysinfo <argument> <string>

argument –

system_fw_version – System firmware (e.g. BIOS) version.

primary_os_name – Primary operating system name.

os_name – Operating system name.

system_name – System Name of server (vendor dependent).

Example

```
root@obmc:~# ipmitool mc getsysinfo system_fw_version
v102.0a.00.02
root@obmc:~#
root@obmc:~# ipmitool mc getsysinfo primary_os_name
accton
root@obmc:~#
root@obmc:~# ipmitool mc getsysinfo os_name
ubuntu-accton
root@obmc:~#
root@obmc:~# ipmitool mc getsysinfo system_name
ags8200-obmc
root@obmc:~#
```

ipmitool mc setsysinfo Sets a list of the host system information.

Syntax

ipmitool mc setsysinfo <argument>

argument –

system_fw_version – System firmware (e.g. BIOS) version.

primary_os_name – Primary operating system name.

os_name – Operating system name.

system_name – System Name of server (vendor dependent).

Example

```
root@obmc:~# ipmitool mc setsysinfo system_fw_version v102.0a.00.02
root@obmc:~#
root@obmc:~# ipmitool mc setsysinfo primary_os_name accton
root@obmc:~#
root@obmc:~# ipmitool mc setsysinfo os_name ubuntu-accton
root@obmc:~#
root@obmc:~# ipmitool mc setsysinfo system_name ags8200-obmc
root@obmc:~#
```

ipmitool mc reset Instructs the BMC to perform a reset.

Syntax

ipmitool mc reset cold

cold – Cold reset.

Example

```
root@obmc:~# ipmitool mc reset cold
Sent cold reset command to MC
root@obmc:~#
```

ipmitool chassis status Displays information about the high-level status of the system chassis and main power subsystem.

Syntax

ipmitool chassis status

Command Usage

There are many hard-coded, unsupported fields, which are set to “false” or 0 and are listed as follows:

- Power Overload
- Power Interlock

- Main Power Fault
- Power Control Fault
- Last Power Event
- Chassis Intrusion
- Front-Panel Lockout
- Drive Fault
- Cooling/Fan Fault
- Front Panel Control

Example

```
root@obmc:~# ipmitool chassis status
System Power          : off
Power Overload        : false
Power Interlock        : inactive
Main Power Fault      : false
Power Control Fault    : false
Power Restore Policy   : previous
Last Power Event       :
Chassis Intrusion      : inactive
Front-Panel Lockout    : inactive
Drive Fault            : false
Cooling/Fan Fault      : false
Front Panel Control    : none
root@obmc:~#
```

ipmitool chassis poh This command displays the Power-On Hours counter.

Syntax

ipmitool chassis poh

Example

```
root@obmc:~# ipmitool chassis poh
POH Counter : 0 days, 2 hours
root@obmc:~#
```

ipmitool chassis restart_cause Shows the restart cause of the x86 host.

Syntax

ipmitool chassis restart_cause

Command Usage

The supported restart causes are:

- Unknown
- RemoteCommand
- ResetButton
- PowerButton

- WatchdogTimer
- PowerPolicyAlwaysOn
- PowerPolicyPreviousState
- SoftReset

Example

```
root@obmc:~# ipmitool chassis power status
Chassis Power is on
root@obmc:~# ipmitool chassis power off
Chassis Power Control: Down/Off
root@obmc:~# ipmitool chassis power status
Chassis Power is off
root@obmc:~# ipmitool chassis restart_cause
System restart cause: chassis power control command
root@obmc:~#
```

ipmitool chassis policy This command can configure and display the supported power restore policies.

Syntax

ipmitool chassis policy *<policy>*

policy –

list – Return supported policies.

always-on – Turn on when power is restored.

always-off – Stay off after power is restored.

previous – Return to previous state when power is restored.

Example

```
root@obmc:~# ipmitool chassis policy list
Supported chassis power policy:  always-off always-on previous
root@obmc:~#
root@obmc:~# ipmitool chassis policy always-on
Set chassis power restore policy to always-on
root@obmc:~#
root@obmc:~# ipmitool chassis policy always-off
Set chassis power restore policy to always-off
root@obmc:~#
root@obmc:~# ipmitool chassis policy previous
Set chassis power restore policy to previous
root@obmc:~#
```

ipmitool chassis power This command can control the x86 host power and display the power status.

Syntax

ipmitool chassis power *<argument>*

argument –

status – Show the current x86 host power status.

on – Power on the x86 host.

off – Power off the x86 host into the S5 state.

cycle – Powers off the x86 host and then powers on. This command will be no action while the power sequence is in the S5 state.

reset – Resets the x86 host. This command will be no action while the power sequence is in the S5 state.

Example

```
root@obmc:~# ipmitool chassis power status
Chassis Power is on
root@obmc:~#
root@obmc:~# ipmitool chassis power on
Chassis Power Control: Up/On
root@obmc:~#
root@obmc:~# ipmitool chassis power off
Chassis Power Control: Down/Off
root@obmc:~#
root@obmc:~# ipmitool chassis power cycle
Chassis Power Control: Cycle
root@obmc:~#
root@obmc:~# ipmitool chassis power reset
Chassis Power Control: Reset
root@obmc:~#
```

ipmitool power This command can control the x86 host power and display the power status.

Syntax

ipmitool power <argument>

argument –

status – Show the current x86 host power status.

on – Power on the x86 host.

off – Power off the x86 host into the S5 state.

cycle – Powers off the x86 host and then powers on. This command will be no action while the power sequence is in the S5 state.

reset – Resets the x86 host. This command will be no action while the power sequence is in the S5 state.

Example

```
root@obmc:~# ipmitool power status
Chassis Power is on
root@obmc:~#
root@obmc:~# ipmitool power on
Chassis Power Control: Up/On
root@obmc:~#
root@obmc:~# ipmitool power off
```

```
Chassis Power Control: Down/Off
root@obmc:~#
root@obmc:~# ipmitool power cycle
Chassis Power Control: Cycle
root@obmc:~#
root@obmc:~# ipmitool power reset
Chassis Power Control: Reset
root@obmc:~#
```

ipmitool sel time This command accesses the BMC's system time. (Note: This feature is supported since version V00.00.06.)

Syntax

ipmitool sel time <get | set>

get – Display the BMC's system time.

set "mm/dd/yyyy hh:mm:ss" – Sets the time.

Example

```
root@obmc:~# ipmitool sel time get
06/26/2024 07:01:52
root@obmc:~#
root@obmc:~# hwclock -w
root@obmc:~# timedatectl set-ntp false
root@obmc:~# ipmitool sel time set "07/29/2024 18:48:24"
07/29/24 18:48:24 UTC
root@obmc:~#
```

Platform Troubleshooting

The commands listed in this section are for System Event Log (SEL) functions.

ipmitool sel info This command displays the SEL information.

Syntax

ipmitool sel info

Example

```
root@obmc:~# ipmitool sel info
SEL Information
Version          : 1.5 (v1.5, v2 compliant)
Entries          : 3
Free Space       : 65535 bytes or more
Percent Used     : unknown
Last Add Time    : 06/26/2024 06:59:26
Last Del Time    : 06/26/2024 06:58:34
Overflow         : false
```

```
Supported Cmds    : 'Reserve'
root@obmc:~#
```

ipmitool sel list|elist This command displays SEL information and SEL log entries.

Syntax

ipmitool sel [list | elist] [first | last] [count]

list – Display SEL content.

elist – Display SEL detail content.

count – Display the number of SEL logs.

first <count> – The displayed log entries are selected starting from the smallest ID number, and specifies how many logs to display by count parameter.

last <count> – The displayed log entries are selected starting from the largest ID number, and specifies how many logs to display by count parameter.

Example

```
root@obmc:~# ipmitool sel
SEL Information
Version          : 1.5 (v1.5, v2 compliant)
Entries          : 5
Free Space       : 65535 bytes or more
Percent Used     : unknown
Last Add Time    : 06/28/2024 09:27:04
Last Del Time    : 06/28/2024 08:47:58
Overflow         : false
Supported Cmds   : 'Reserve'
root@obmc:~#
root@obmc:~# ipmitool sel list
 1 | 06/28/2024 | 08:47:58 | Event Logging Disabled | Log area reset/cleared
   | Asserted
 2 | 06/28/2024 | 08:48:13 | FRU State | Deactivation Requested | Asserted
 3 | 06/28/2024 | 08:48:23 | FRU State | Activation Requested | Asserted
 4 | 06/28/2024 | 09:26:59 | Voltage #0x5c | Upper Non-critical going high
   | Asserted
 5 | 06/28/2024 | 09:27:04 | Voltage #0x5c | Upper Non-critical going high
   | Deasserted
root@obmc:~# ipmitool sel elist
 1 | 06/28/2024 | 08:47:58 | Event Logging Disabled | Log area reset/cleared
   | Asserted
 2 | 06/28/2024 | 08:48:13 | FRU State | Deactivation Requested | Asserted
 3 | 06/28/2024 | 08:48:23 | FRU State | Activation Requested | Asserted
 4 | 06/28/2024 | 09:26:59 | Voltage SERVER_5V | Upper Non-critical going
   | high | Asserted | Reading 5.02 > Threshold 5.02 Volts
 5 | 06/28/2024 | 09:27:04 | Voltage SERVER_5V | Upper Non-critical going
   | high | Deasserted | Reading 5.02 > Threshold 5.99 Volts
root@obmc:~#
root@obmc:~# ipmitool sel list 2
 1 | 06/28/2024 | 08:47:58 | Event Logging Disabled | Log area reset/cleared
   | Asserted
 2 | 06/28/2024 | 08:48:13 | FRU State | Deactivation Requested | Asserted
```

```
root@obmc:~# ipmitool sel elist 3
  1 | 06/28/2024 | 08:47:58 | Event Logging Disabled | Log area reset/cleared
    | Asserted
  2 | 06/28/2024 | 08:48:13 | FRU State | Deactivation Requested | Asserted
  3 | 06/28/2024 | 08:48:23 | FRU State | Activation Requested | Asserted
root@obmc:~#
root@obmc:~# ipmitool sel elist first 3
  1 | 06/26/2024 | 06:58:34 | Event Logging Disabled | Log area reset/cleared
    | Asserted
  2 | 06/26/2024 | 06:59:22 | Voltage SERVER_5V | Upper Non-critical going
    | high | Asserted | Reading 5.02 > Threshold 5.02 Volts
  3 | 06/26/2024 | 06:59:25 | Voltage SERVER_5V | Upper Non-critical going
    | high | Deasserted | Reading 5.02 > Threshold 5.99 Volts
root@obmc:~#
root@obmc:~# ipmitool sel list last 2
  2 | 06/26/2024 | 06:59:22 | Voltage #0x6c | Upper Non-critical going high
    | Asserted
  3 | 06/26/2024 | 06:59:25 | Voltage #0x6c | Upper Non-critical going high
    | Deasserted
root@obmc:~#
```

ipmitool sel save This command saves SEL records to a text file.

Syntax

ipmitool sel save <file>

file – Sets the path and filename for saving a file.

Example

```
root@obmc:~# ipmitool sel save /tmp/ipmi_temp.txt
  1 | 06/26/2024 | 06:58:34 | Event Logging Disabled | Log area reset/cleared
    | Asserted
  2 | 06/26/2024 | 06:59:22 | Voltage #0x6c | Upper Non-critical going high
    | Asserted
  3 | 06/26/2024 | 06:59:25 | Voltage #0x6c | Upper Non-critical going high
    | Deasserted
root@obmc:~#
```

ipmitool sel clear This command clears all SEL logs.

Syntax

ipmitool sel clear

Example

```
root@obmc:~# ipmitool sel clear
Clearing SEL. Please allow a few seconds to erase.
root@obmc:~#
```

Remote Control Host

The commands listed in this section include the Serial-over-LAN (SOL) function.

ipmitool sol This command can activate or deactivate the sessions of Serial-over-LAN (SOL) and allow remote access to the x86 host operating system.

Syntax

ipmitool -I lanplus -H *bmcip* -U *user* -P *pwd* sol activate|deactivate

-H *bmcip* – The BMC IP address.

-U *user* – User name.

-P *pwd* – User password.

activate – Create a SOL session to access the x86 host operating system.

deactivate – Delete the existing SOL session.

Example

```
root@obmc:~# ipmitool -I lanplus -C 17 -H 172.21.150.3 -U root -P OpenBmc sol
activate
[SOL Session operational. Use ~? for help]

root@AGS8200:~# ~. [terminated ipmitool]
root@obmc:~#
```

```
(SSH Session 1)
root@obmc:~# ipmitool -I lanplus -C 17 -H 10.102.8.111 -U root -P OpenBmc sol
deactivate
root@obmc:~#
```

```
(SSH Session 2)
root@obmc:~# ipmitool -I lanplus -C 17 -H 10.102.8.111 -U root -P OpenBmc sol
activate
[SOL Session operational. Use ~? for help]
```

```
(base) root@AGS8200:~#
(base) root@AGS8200:~#
(base) root@AGS8200:~# SOL session closed by BMC
```

Security Service

The commands listed in this section include user management, permission, and channel-related functions.

ipmitool user summary Displays a summary of user ID information, including maximum number of user IDs, the number of enabled users, and the number of fixed names defined.

Syntax

ipmitool user summary [*<channel number>*]

channel number – The index of the specified channel.

Example

```
root@obmc:~# ipmitool user summary 1
Maximum IDs      : 15
Enabled User Count : 1
Fixed Name Count  : 0
root@obmc:~#
```

ipmitool user list Displays a list of user information for the specified channel.

Syntax

ipmitool user list [*<channel number>*]

channel number – The index of the specified channel.

Example

```
root@obmc:~# ipmitool user list 1
ID  Name      Callin Link Auth IPMI Msg  Channel Priv Limit
1   root      false true      true      ADMINISTRATOR
2                   true  false    false     NO ACCESS
3                   true  false    false     NO ACCESS
4                   true  false    false     NO ACCESS
5                   true  false    false     NO ACCESS
6                   true  false    false     NO ACCESS
7                   true  false    false     NO ACCESS
8                   true  false    false     NO ACCESS
9                   true  false    false     NO ACCESS
10                  true  false    false     NO ACCESS
11                  true  false    false     NO ACCESS
12                  true  false    false     NO ACCESS
13                  true  false    false     NO ACCESS
14                  true  false    false     NO ACCESS
15                  true  false    false     NO ACCESS
root@obmc:~#
```

ipmitool set name Sets the user name associated with the specified user ID.

Syntax

ipmitool user set name <user-id> <username>

user-id – Specifies the user ID.

username – Specifies the user name.

Example

```
root@obmc:~# ipmitool user set name 3 debuguser2
root@obmc:~# ipmitool user list 1
```

ID	Name	Callin	Link	Auth	IPMI Msg	Channel Priv Limit
1	root	false	true		true	ADMINISTRATOR
2		true	false		false	NO ACCESS
3	debuguser2	true	false		false	NO ACCESS
4		true	false		false	NO ACCESS
5		true	false		false	NO ACCESS
6		true	false		false	NO ACCESS
7		true	false		false	NO ACCESS
8		true	false		false	NO ACCESS
9		true	false		false	NO ACCESS
10		true	false		false	NO ACCESS
11		true	false		false	NO ACCESS
12		true	false		false	NO ACCESS
13		true	false		false	NO ACCESS
14		true	false		false	NO ACCESS
15		true	false		false	NO ACCESS

```
root@obmc:~#
```

ipmitool user set password Sets the password for the specified user ID.

Syntax

ipmitool user set password <user-id> [<password> <16|20>]

user-id – Specifies the user ID.

password – Specifies the maximum password length for the user password to be 16 or 20 characters.

Command Usage

- If no password is specified, the password is cleared (set to a NULL password). Be careful of removing the passwords of administrator-level accounts.
- The rules for passwords are as follows:
 - Minimum acceptable size: 14
 - At least 1 upper case letter
 - At least 1 lower case letter
 - At least 1 other character
 - At least 1 digit
 - Cannot include the username

- Cannot include over 5 sequence characters
- At least 5 different characters

Example

```
root@obmc:~# ipmitool user set password 3 OpenBmcAccton123#
Set User Password command successful (user 3)
root@obmc:~#
```

ipmitool user disable Disables the user account with specified user ID.

Syntax

ipmitool user disable <user-id>

user-id – Specifies the user ID.

Example

```
root@obmc:~# ipmitool user summary 1
Maximum IDs      : 15
Enabled User Count : 2
Fixed Name Count  : 0
root@obmc:~# ipmitool user disable 3
root@obmc:~# ipmitool user summary 1
Maximum IDs      : 15
Enabled User Count : 1
Fixed Name Count  : 0
root@obmc:~#
```

ipmitool user enable Enables the user account with specified user ID.

Syntax

ipmitool user enable <user-id>

user-id – Specifies the user ID.

Example

```
root@obmc:~# ipmitool user summary 1
Maximum IDs      : 15
Enabled User Count : 1
Fixed Name Count  : 0
root@obmc:~# ipmitool user enable 3
root@obmc:~# ipmitool user summary 1
Maximum IDs      : 15
Enabled User Count : 2
Fixed Name Count  : 0
root@obmc:~#
```

ipmitool user test Determines whether a password complies with the rules.

Syntax

ipmitool user test <user-id> <16|20> [<password>]

user-id – Specifies the user ID.

16|20 – The maximum length of the password.

password – Specifies the user password.

Example

```
root@obmc:~# ipmitool user test 3 20 OpenBmcAccton123#
Success
root@obmc:~#
```

ipmitool channel info Displays information for the specified channel.

Syntax

ipmitool channel info [*channel-number*]

channel-number – The index of the specified channel.

Command Usage

- If no channel is specified, information is displayed for the currently used channel.
- Channels can be used to support multiple IPMI, LAN, and serial etc., connections to the BMC.

Example

```
root@obmc:~# ipmitool channel info 1
Channel 0x1 info:
Channel Medium Type   : 802.3 LAN
Channel Protocol Type : IPMB-1.0
Session Support       : multi-session
Active Session Count  : 0
Protocol Vendor ID    : 7154
Volatile(active) Settings
Alerting               : enabled
Per-message Auth       : enabled
User Level Auth        : enabled
Access Mode            : always available
Non-Volatile Settings
Alerting               : enabled
Per-message Auth       : enabled
User Level Auth        : enabled
Access Mode            : always available
root@obmc:~#
```

ipmitool channel getaccess Displays user access information for the given channel and the specified user ID.

Syntax

ipmitool channel getaccess <channel-number> [user-id]
channel-number – The index of the specified channel.
user-id – Specifies the user ID.

Example

```
root@obmc:~# ipmitool channel getaccess 1 3
Maximum User IDs      : 15
Enabled User IDs      : 2

User ID               : 3
User Name              : debuguser2
Fixed Name            : No
Access Available      : call-in / callback
Link Authentication   : disabled
IPMI Messaging        : disabled
Privilege Level        : NO ACCESS
Enable Status         : enabled
root@obmc:~#
```

ipmitool channel setaccess Configure user access information for the specified channel and user ID.

Syntax

ipmitool channel setaccess <channel-number> <user-id> [callin=on|off]
[ipmi=on|off] [link=on|off] [privilege=level]
channel-number – The index of the specified channel.
user-id – Specifies the user ID.
callin – Controls the callback function.
ipmi – Controls IPMI message send and receive.
link – Controls a link's authentication.
privilege – Controls the privilege limitation.
level – The privilege level (1-15).

Command Usage

The possible privilege levels are:

- 1 Callback level
- 2 User level
- 3 Operator level
- 4 Administrator level
- 5 OEM Proprietary level
- 15 No access

Example

```
root@obmc:~# ipmitool user list 1
ID  Name           Callin Link Auth IPMI Msg Channel Priv Limit
1   root           false  true    true    ADMINISTRATOR
2                   true   false   false   NO ACCESS
3   debuguser2     true   false   false   NO ACCESS
4                   true   false   false   NO ACCESS
5                   true   false   false   NO ACCESS
6                   true   false   false   NO ACCESS
7                   true   false   false   NO ACCESS
8                   true   false   false   NO ACCESS
9                   true   false   false   NO ACCESS
10                  true   false   false   NO ACCESS
11                  true   false   false   NO ACCESS
12                  true   false   false   NO ACCESS
13                  true   false   false   NO ACCESS
14                  true   false   false   NO ACCESS
15                  true   false   false   NO ACCESS
root@obmc:~# ipmitool channel setaccess 1 3 callin=on ipmi=on link=on
privilege=4
Set User Access (channel 1 id 3) successful.
root@obmc:~# ipmitool user list 1
ID  Name           Callin Link Auth IPMI Msg Channel Priv Limit
1   root           false  true    true    ADMINISTRATOR
2                   true   false   false   NO ACCESS
3   debuguser2     true   true    true    ADMINISTRATOR
4                   true   false   false   NO ACCESS
5                   true   false   false   NO ACCESS
6                   true   false   false   NO ACCESS
7                   true   false   false   NO ACCESS
8                   true   false   false   NO ACCESS
9                   true   false   false   NO ACCESS
10                  true   false   false   NO ACCESS
11                  true   false   false   NO ACCESS
12                  true   false   false   NO ACCESS
13                  true   false   false   NO ACCESS
14                  true   false   false   NO ACCESS
15                  true   false   false   NO ACCESS
root@obmc:~#
```

ipmitool channel getciphers Displays the list of cipher suites supported for the specified application (IPMI or SOL) on the specified channel.

Syntax

ipmitool channel getciphers <ipmi|sol> [*channel-number*]

ipmi - Specifies the IPMI application.

sol - Specifies the SOL application.

channel-number – The index of the specified channel.

Example

```
root@obmc:~# ipmitool channel getciphers ipmi 1
ID  IANA Auth Alg Integrity Alg Confidentiality Alg
```

```
17    N/A    hmac_sha256    sha256_128    aes_cbc_128
root@obmc:~#
```

4

Redfish API

This chapter includes the following sections:

- [“Redfish API Overview” on page 77](#)
- [“Login Commands” on page 80](#)
- [“Redfish Commands” on page 81](#)
- [“BMC System Management” on page 83](#)
- [“Firmware Inventory” on page 94](#)
- [“Network Service” on page 97](#)
- [“Platform Health and Peripheral Monitoring” on page 105](#)
- [“Platform Management” on page 144](#)
- [“Platform Troubleshooting” on page 154](#)
- [“Security Service” on page 161](#)

Redfish API Overview

The AGS8200 supports Redfish API to manage the BMC system. Redfish API is presented in the form of a URL and communicates interactively through the HTTPS protocol. Users can access Redfish nodes through a **curl** tool. For further information on Redfish, refer to <https://www.dmtf.org/standards/redfish>.

In the examples in this chapter, you will see two parameters, **\$token** and **\$bmc_ip**. The parameter **\$token** means “X-Auth-Token” and **\$bmc_ip** means the BMC’s interface IP, both of which require environment settings in advance. Refer to the following example for the set up.

Example

If the BMC’s interface IP is “192.168.10.1”, the user name is “debuguser”, and the password is “acctonOpenBmc#123”. Set the **\$token** and **\$bmc_ip** environment parameters in advance before accessing Redfish nodes.

- `export bmc_ip= 192.168.10.1`
- `export token=`curl -k -H "Content-Type: application/json" -X POST https://
${bmc_ip}/login -d '{"username": "debuguser", "password":
"acctonOpenBmc#123"}' | grep token | awk '{print $2;}' | tr -d "'``



Note: Users cannot use the BMC default account “root” and password “OpenBmc” to access Redfish nodes. For information on how to create account and password, see section “Security Service” on page 69.

Table 4: Redfish Commands

Command	Function
Login	
<code>login</code>	Access Redfish and log in to get a token.
<code>logout</code>	Logs out from the BMC web.
Redfish	
<code>redfish</code>	Gets basic redfish information.
<code>redfish/v1</code>	Gets basic redfish information.
BMC System Management	
<code>redfish/v1/JsonSchemas</code>	Shows the resource of the Json schema files collection.
<code>redfish/v1/JsonSchemas/<str></code>	Shows the information of the specified Json schema file.
<code>redfish/v1/Managers</code>	Shows the resource of the manager collection
<code>redfish/v1/Managers/bmc</code>	Gets the resources of the BMC manager.

Table 4: Redfish Commands (Continued)

Command	Function
redfish/v1/Managers/bmc/Actions/Manager.ResetToDefaults	Restores factory default settings for the BMC.
Firmware Inventory	
redfish/v1/UpdateService	Shows the resource of the UpdateService collection.
redfish/v1/UpdateService/update	Uploads and upgrades a new image.
redfish/v1/UpdateService/FirmwareInventory	Shows the resource of the Firmware Inventory collection.
redfish/v1/UpdateService/FirmwareInventory/<str>	Shows the information of the specified firmware.
Network Service	
redfish/v1/Managers/bmc/EthernetInterfaces	Shows the information of the specified firmware.
redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id>	Gets the properties of the specified Ethernet interface.
redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id>/VLANs	Gets the collection of VLAN interfaces for the specified Ethernet interface.
redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id>/VLANs/<vlan_id>	Gets the collection of VLAN interfaces for the specified Ethernet interface.
redfish/v1/Managers/bmc/NetworkProtocol	Gets the protocols of the manager network service.
Platform Health and Peripheral Monitoring	
redfish/v1/Chassis/	Gets the chassis information.
redfish/v1/Chassis/Baseboard	Gets the properties of the chassis resource.
redfish/v1/Chassis/Baseboard/Power	Gets the properties of the chassis power.
redfish/v1/Chassis/Baseboard/Thermal	Gets the properties of the thermal sensor resource.
redfish/v1/Chassis/Baseboard/Sensors	Gets the properties of the sensors resource.
Platform Management	
redfish/v1/Managers/bmc/ResetActionInfo	Gets the information of the reset action resource for the BMC.
redfish/v1/Managers/bmc/Actions/Manager.Reset	Resets the BMC based on the reset type.
redfish/v1/SessionService/	Gets the properties of the sessions resource.
redfish/v1/SessionService/Sessions/	Reads the sessions information.
redfish/v1/SessionService/Sessions/<str>	Deletes a session by session ID.
redfish/v1/Systems	Gets system information.
redfish/v1/Systems/system	Gets the properties of systems resource.
redfish/v1/Systems/system/ResetActionInfo	Gets the properties of systems resource.

Table 4: Redfish Commands (Continued)

Command	Function
redfish/v1/Systems/system/Actions/ComputerSystem.Reset	Resets the system based on the reset type.
Platform Troubleshooting	
redfish/v1/Systems/system/LogServices	Displays the log type.
redfish/v1/Systems/system/LogServices/EventLog	Displays the event log type.
redfish/v1/Systems/system/LogServices/EventLog/Entries	Gets the properties of the SEL entries resource.
redfish/v1/Systems/system/LogServices/EventLog/Entries/<str>	Gets the properties of one SEL entry resource.
redfish/v1/Systems/system/LogServices/EventLog/Actions/LogService.ClearLog	Executes a SEL clear action.
redfish/v1/Systems/system/LogServices/PostCodes/Actions/LogService.ClearLog	Executes a PostCode log clear action.
redfish/v1/Systems/system/LogServices/PostCodes/Entries	Gets a collection of PostCode log entries.
Security Service	
redfish/v1/AccountService	Gets the properties of the account resource.
redfish/v1/AccountService/Roles	Gets the information of account roles.
redfish/v1/AccountService/Accounts	Gets the information of accounts.
redfish/v1/AccountService/Accounts/<str>	Gets the information of an account.
redfish/v1/AccountService/LDAP/Certificates	Gets the information of LDAP certificates.
redfish/v1/CertificateService/CertificateLocations	Defines a resource that can be used to locate all certificates installed on a given service.
redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates	Gets a collection of HTTPS certificate instances.
redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/<str>	Gets an HTTPS certificate.
redfish/v1/Managers/bmc/Truststore/Certificates	Gets a collection of HTTPS certificate instances.
redfish/v1/CertificateService/Actions/CertificateService.ReplaceCertificate	Replaces HTTPS certificate instances.
redfish/v1/CertificateService/Actions/CertificateService.GenerateCSR	Generates a CSR file.

Login Commands

The commands listed in this section are about logging in and out of Redfish.

login Access Redfish and log in to get a token.

URL

/login

Method

POST

Parameters

"username"

"password"

Request Example

```
export bmc_ip=<bmc_ip>
curl -k -H "Content-Type: application/json" -X POST https://{bmc_ip}/login -
d '{"username": "root", "password": "OpenBmc"}'
```

Response Example

```
{
  "token": "2FjFuo4mvm2OhflcA8be"
}
```

logout Logs out from the BMC web.

URL

/logout

Method

POST

Request Example

```
curl -k -H "X-Auth-Token: $token" -H "Content-Type: application/json" -X POST
https://{bmc_ip}/logout
```

Response Example

```
{
  "data": "User 'root' logged out",
  "message": "200 OK",
  "status": "ok"
}
```

Redfish Commands

The commands listed in this section include Redfish-related information.

redfish Gets basic Redfish information.

URL

`/redfish`

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish
```

Response Example

```
{
  "v1": "/redfish/v1/"
}
```

redfish/v1 Gets basic Redfish information.

URL

`/redfish/v1`

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1
```

Response Example

```
{
  "@odata.id": "/redfish/v1",
  "@odata.type": "#ServiceRoot.v1_5_0.ServiceRoot",
  "AccountService": {
    "@odata.id": "/redfish/v1/AccountService"
  },
  "CertificateService": {
    "@odata.id": "/redfish/v1/CertificateService"
  },
  "Chassis": {
    "@odata.id": "/redfish/v1/Chassis"
  },
  "EventService": {
    "@odata.id": "/redfish/v1/EventService"
  },
  "Id": "RootService",
  "JsonSchemas": {
    "@odata.id": "/redfish/v1/JsonSchemas"
  },
  "Links": {
    "Sessions": {
      "@odata.id": "/redfish/v1/SessionService/Sessions"
    }
  },
  "Managers": {
    "@odata.id": "/redfish/v1/Managers"
  },
  "Name": "Root Service",
  "RedfishVersion": "1.9.0",
  "Registries": {
    "@odata.id": "/redfish/v1/Registries"
  },
  "SessionService": {
    "@odata.id": "/redfish/v1/SessionService"
  },
  "Systems": {
    "@odata.id": "/redfish/v1/Systems"
  },
  "Tasks": {
    "@odata.id": "/redfish/v1/TaskService"
  },
  "TelemetryService": {
    "@odata.id": "/redfish/v1/TelemetryService"
  },
  "UUID": "01afd680-54dc-4d70-917b-df33c358d8ca",
  "UpdateService": {
    "@odata.id": "/redfish/v1/UpdateService"
  }
}
```

BMC System Management

The commands listed in this section include Json Schemas, BMC system information, and setting related functions.

redfish/v1/JsonSchemas Show the resource of the Json schema files collection.

URL

`/redfish/v1/JsonSchemas`

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/JsonSchemas
```

Response Example

```
{
  "@odata.id": "/redfish/v1/JsonSchemas",
  "@odata.type": "#JsonSchemaFileCollection.JsonSchemaFileCollection",
  "Description": "Collection of JsonSchemaFiles",
  "Members": [
    {
      "@odata.id": "/redfish/v1/JsonSchemas/AccountService"
    },
    {
      "@odata.id": "/redfish/v1/JsonSchemas/ActionInfo"
    },
    {
      "@odata.id": "/redfish/v1/JsonSchemas/AggregationService"
    },
    {
      "@odata.id": "/redfish/v1/JsonSchemas/AggregationSource"
    },
    {
      "@odata.id": "/redfish/v1/JsonSchemas/AggregationSourceCollection"
    },
    {
      "@odata.id": "/redfish/v1/JsonSchemas/Assembly"
    },
    {
      "@odata.id": "/redfish/v1/JsonSchemas/AttributeRegistry"
    },
    {
      "@odata.id": "/redfish/v1/JsonSchemas/Bios"
    },
    {
      "@odata.id": "/redfish/v1/JsonSchemas/Cable"
    },
    {
```

```
    "@odata.id": "/redfish/v1/JsonSchemas/CableCollection"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/Certificate"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/CertificateCollection"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/CertificateLocations"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/CertificateService"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/Chassis"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/ChassisCollection"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/ComponentIntegrity"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/ComponentIntegrityCollection"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/ComputerSystem"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/ComputerSystemCollection"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/Drive"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/DriveCollection"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/EnvironmentMetrics"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/EthernetInterface"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/EthernetInterfaceCollection"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/Event"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/EventDestination"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/EventDestinationCollection"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/EventService"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/FabricAdapter"
  },
  {
    "@odata.id": "/redfish/v1/JsonSchemas/FabricAdapterCollection"
  },
  },
}
```

```
{
  "@odata.id": "/redfish/v1/JsonSchemas/Fan"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/FanCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/IPAddresses"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/JsonSchemaFile"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/JsonSchemaFileCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/LogEntry"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/LogEntryCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/LogService"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/LogServiceCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Manager"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ManagerAccount"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ManagerAccountCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ManagerCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ManagerDiagnosticData"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ManagerNetworkProtocol"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Memory"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MemoryCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Message"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MessageRegistry"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MessageRegistryCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MessageRegistryFile"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MessageRegistryFileCollection"
```

```
,
{
  "@odata.id": "/redfish/v1/JsonSchemas/MetricDefinition"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MetricDefinitionCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MetricReport"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MetricReportCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MetricReportDefinition"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/MetricReportDefinitionCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/odata"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/odata-v4"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/OperatingConfig"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/OperatingConfigCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PCIeDevice"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PCIeDeviceCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PCIeFunction"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PCIeFunctionCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PCIeSlots"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PhysicalContext"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Port"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PortCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Power"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PowerSubsystem"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/PowerSupply"
},
{
```

```
"@odata.id": "/redfish/v1/JsonSchemas/PowerSupplyCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Privileges"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Processor"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ProcessorCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/redfish-error"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/redfish-payload-annotations"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/redfish-schema"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/redfish-schema-v1"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Redundancy"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Resource"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Role"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/RoleCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Sensor"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/SensorCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ServiceRoot"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Session"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/SessionCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/SessionService"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Settings"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/SoftwareInventory"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/SoftwareInventoryCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Storage"
},
},
```

```
{
  "@odata.id": "/redfish/v1/JsonSchemas/StorageCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/StorageController"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/StorageControllerCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Task"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/TaskCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/TaskService"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/TelemetryService"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Thermal"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ThermalMetrics"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/ThermalSubsystem"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/Triggers"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/TriggersCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/UpdateService"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/VirtualMedia"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/VirtualMediaCollection"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/OemManager"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/OemComputerSystem"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/OemVirtualMedia"
},
{
  "@odata.id": "/redfish/v1/JsonSchemas/OpenBMCAccountService"
}
],
"Members@odata.count": 115,
"Name": "JsonSchemaFile Collection"
}
```

redfish/v1/JsonSchemas/<str> Shows the information of the specified Json schema file.

URL

/redfish/v1/JsonSchemas/<str>

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/JsonSchemas/AccountService
```

Response Example

```
{
  "@odata.id": "/redfish/v1/JsonSchemas/AccountService",
  "@odata.type": "#JsonSchemaFile.v1_0_2.JsonSchemaFile",
  "Description": "AccountService Schema File Location",
  "Id": "AccountService",
  "Languages": [
    "en"
  ],
  "Languages@odata.count": 1,
  "Location": [
    {
      "Language": "en",
      "PublicationUri": "http://redfish.dmtf.org/schemas/v1/AccountService.json",
      "Uri": "/redfish/v1/JsonSchemas/AccountService/AccountService.json"
    }
  ],
  "Location@odata.count": 1,
  "Name": "AccountService Schema File",
  "Schema": "#AccountService.AccountService"
}
```

redfish/v1/Managers Shows the resource of the manager collection.

URL

/redfish/v1/Managers

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/Managers
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Managers",
  "@odata.type": "#ManagerCollection.ManagerCollection",
  "Members": [
    {
      "@odata.id": "/redfish/v1/Managers/bmc"
    }
  ],
  "Members@odata.count": 1,
  "Name": "Manager Collection"
}
```

redfish/v1/Managers/bmc Gets the resources of the BMC manager.

URL

/redfish/v1/Managers/bmc

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/Managers/bmc
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Managers/bmc",
  "@odata.type": "#Manager.v1_14_0.Manager",
  "Actions": {
    "#Manager.Reset": {
      "@Redfish.ActionInfo": "/redfish/v1/Managers/bmc/ResetActionInfo",
      "target": "/redfish/v1/Managers/bmc/Actions/Manager.Reset"
    },
    "#Manager.ResetToDefaults": {
      "ResetType@Redfish.AllowableValues": [
        "ResetAll"
      ],
      "target": "/redfish/v1/Managers/bmc/Actions/Manager.ResetToDefaults"
    }
  }
}
```

```

    }
  },
  "DateTime": "2024-07-01T12:11:29+00:00",
  "DateTimeLocalOffset": "+00:00",
  "Description": "Baseboard Management Controller",
  "EthernetInterfaces": {
    "@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces"
  },
  "FirmwareVersion": "v00.00.05h-3-ga29b6a95c2",
  "GraphicalConsole": {
    "ConnectTypesSupported": [
      "KVMIP"
    ],
    "MaxConcurrentSessions": 4,
    "ServiceEnabled": true
  },
  "Id": "bmc",
  "LastResetTime": "2023-09-21T08:24:19+00:00",
  "Links": {
    "ActiveSoftwareImage": {
      "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/8a3689eb"
    },
    "ManagerForChassis": [
      {
        "@odata.id": "/redfish/v1/Chassis/GBaseboard"
      }
    ],
    "ManagerForChassis@odata.count": 1,
    "ManagerForServers": [
      {
        "@odata.id": "/redfish/v1/Systems/system"
      }
    ],
    "ManagerForServers@odata.count": 1,
    "ManagerInChassis": {
      "@odata.id": "/redfish/v1/Chassis/Baseboard"
    },
    "SoftwareImages": [
      {
        "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/8a3689eb"
      }
    ],
    "SoftwareImages@odata.count": 1
  },
  "LogServices": {
    "@odata.id": "/redfish/v1/Managers/bmc/LogServices"
  },
  "ManagerDiagnosticData": {
    "@odata.id": "/redfish/v1/Managers/bmc/ManagerDiagnosticData"
  },
  "ManagerType": "BMC",
  "Manufacturer": "Accton",
  "Model": "BMC Card",
  "Name": "OpenBmc Manager",
  "NetworkProtocol": {
    "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol"
  },
  "Oem": {
    "@odata.id": "/redfish/v1/Managers/bmc#/Oem",
    "@odata.type": "#OemManager.Oem",
    "OpenBmc": {
      "@odata.id": "/redfish/v1/Managers/bmc#/Oem/OpenBmc",
      "@odata.type": "#OemManager.OpenBmc",
      "Certificates": {
        "@odata.id": "/redfish/v1/Managers/bmc/Truststore/Certificates"
      }
    }
  }
}

```

```
    }  
  },  
  "PartNumber": "N00MX2280002H ",  
  "PowerState": "On",  
  "SerialConsole": {  
    "ConnectTypesSupported": [  
      "IPMI",  
      "SSH"  
    ],  
    "MaxConcurrentSessions": 15,  
    "ServiceEnabled": true  
  },  
  "SerialNumber": "AM47034318",  
  "ServiceEntryPointUUID": "246eff51-f47d-44b0-826e-6b127f558795",  
  "Status": {  
    "Health": "OK",  
    "State": "Starting"  
  },  
  "UUID": "53b16cd0-5e47-4ad7-86aa-2e1350691bad"  
}
```

Method

PATCH

Parameters

DateTime

Request Example

```
curl -k -H "Content-Type: application/json" -H "X-Auth-Token: $token" -X  
PATCH https://${bmc}/redfish/v1/Managers/bmc/ -d '{"DateTime": "2024-05-  
29T17:48:00.000Z"}'
```

Response Example

```
{  
  "DateTime": "2024-06-29T17:48:00.000Z"  
}
```

redfish/v1/ Managers/bmc/ Actions/ Manager.ResetToDef aults	Restores factory default settings for the BMC.
URL	/redfish/v1/Managers/bmc/Actions/Manager.ResetToDefaults
Method	POST

Parameters

"ResetToDefaultsType"

- ResetAll

Request Example

```
curl -k -H "X-Auth-Token: $token" -X POST https://{bmc_ip}/redfish/v1/
  Managers/bmc/Actions/Manager.ResetToDefaults/ -d '{"ResetToDefaultsType":
  "ResetAll"}'
```

Response Example

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "The request completed successfully.",
      "MessageArgs": [],
      "MessageId": "Base.1.16.0.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}
```

```
The following is the log of the BMC factory reset.
root@obmc:~# [ OK ] Removed slice Slice /system/modprobe.
[ OK ] Removed slice Slice /system/systemd-coredump.
[ OK ] Removed slice Slice /system/xyz.openbmc_project.Hwmon.
[ OK ] Stopped target Host and Network Name Lookups.
[ OK ] Stopped target RPC Port Mapper.
[ OK ] Stopped target Timer Units.
[ OK ] Stopped Daily rotation of log files.
[ OK ] Stopped Daily Cleanup of Temporary Directories.
[ OK ] Stopped target System Time Set.
[ OK ] Stopped target Hardware activated USB gadget.
      Stopping Start bmcweb server...
      Stopping IPMB bridge...
[ OK ] Removed slice Slice /system/obmc-led-
.....
[ 7.893101] Checked W+X mappings: passed, no W+X pages found
[ 7.899494] Run /init as init process
rofs = mtd4 squashfs rwfs = mtd5 jffs2
factory-reset
Factory reset requested.
No files will be selected for save.
update: --no-restore-files --no-save-files
Skipping empty update of rwfs.
Clearing read-write overlay filesystem.
Erasing 64 Kibyte @ 1200000 - 100% complete.
Restoring saved files to read-write overlay filesystem.
update: --no-save-files --clean-saved-files
Skipping empty update of rwfs.
[ 78.860245] jffs2: notice: (217) jffs2_build_xattr_subsystem: complete
      building xattr subsystem, 0 of xdatum (0 unchecked, 0 orphan) and 0 of xref
      (0 dead, 0 orphan) found.
find: run/initramfs/rw/cow/var/lib/systemd/random-seed: No such file or
      directory
[ 80.222388] overlayfs: upper fs does not support tmpfile
```

.....

Firmware Inventory

The commands listed in this section include displayed firmware information and firmware update functions.

**redfish/v1/
UpdateService** Shows the resource of the UpdateService collection.

URL

`/redfish/v1/UpdateService`

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/  
UpdateService
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/UpdateService",  
  "@odata.type": "#UpdateService.v1_11_1.UpdateService",  
  "Description": "Service for Software Update",  
  "FirmwareInventory": {  
    "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory"  
  },  
  "HttpPushUri": "/redfish/v1/UpdateService/update",  
  "HttpPushUriOptions": {  
    "HttpPushUriApplyTime": {  
      "ApplyTime": "OnReset"  
    }  
  },  
  "Id": "UpdateService",  
  "MaxImageSizeBytes": 276824064,  
  "MultipartHttpPushUri": "/redfish/v1/UpdateService/update",  
  "Name": "Update Service",  
  "ServiceEnabled": true  
}
```

Method

PATCH

Parameters

"ApplyTime"

- Immediate
- OnReset

Request Example

Configures when the newly applied software image will be activated.

```
curl -k -H "X-Auth-Token: $token" -X PATCH https://{bmc_ip}/redfish/v1/UpdateService -d '{"HttpPushUriOptions": {"HttpPushUriApplyTime": {"ApplyTime": "OnReset"}}}'
```

Response Example

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "The request completed successfully.",
      "MessageArgs": [],
      "MessageId": "Base.1.16.0.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}
```

redfish/v1/UpdateService/update URL
Uploads and upgrades the new image.
POST Method
/redfish/v1/UpdateService/update URL

Method
POST

Parameters
Image path

Request Example

```
curl -k -H "X-Auth-Token: $token" -X POST https://{bmc_ip}/redfish/v1/UpdateService/update -T "/home/ubuntu/obmc-phosphor-image-ast2600-ags8200.static.mtd.tar"
```

Response Example

```
{
  "@odata.id": "/redfish/v1/TaskService/Tasks/0",
  "@odata.type": "#Task.v1_4_3.Task",
  "Id": "0",
  "TaskState": "Running",
  "TaskStatus": "OK"
}
```

**redfish/v1/UpdateService/
FirmwareInventory** Shows the resource of the Firmware Inventory collection.
URL
`/redfish/v1/UpdateService/FirmwareInventory`

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/  
UpdateService/FirmwareInventory
```

Response Example

```
{
  "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory",
  "@odata.type": "#SoftwareInventoryCollection.SoftwareInventoryCollection",
  "Members": [
    {
      "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/05fd15c6"
    }
  ],
  "Members@odata.count": 1,
  "Name": "Software Inventory Collection"
}
```

**redfish/v1/UpdateService/
FirmwareInventory/<str>** Shows the information of the specified firmware.
URL
`/redfish/v1/UpdateService/FirmwareInventory/<str>`

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/UpdateService/FirmwareInventory/05fd15c6
```

Response Example

```
{
  "@odata.id": "/redfish/v1/UpdateService/FirmwareInventory/05fd15c6",
  "@odata.type": "#SoftwareInventory.v1_1_0.SoftwareInventory",
  "Description": "BMC image",
  "Id": "05fd15c6",
  "Name": "Software Inventory",
  "RelatedItem": [
    {
      "@odata.id": "/redfish/v1/Managers/bmc"
    }
  ],
  "RelatedItem@odata.count": 1,
  "Status": {
    "Health": "OK",
    "HealthRollup": "OK",
    "State": "Enabled"
  },
  "Updateable": true,
  "Version": "v00.00.05h-3-ga29b6a95c2"
}
```

Network Service

The commands listed in this section include IP and network protocol functions.

redfish/v1/Managers/bmc/EthernetInterfaces Shows the information of the specified firmware.
URL

/redfish/v1/Managers/bmc/EthernetInterfaces

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/Managers/bmc/EthernetInterfaces
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces",
  "@odata.type": "#EthernetInterfaceCollection.EthernetInterfaceCollection",
  "Description": "Collection of EthernetInterfaces for this Manager",
  "Members": [
    {
      "@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces/bond0"
    },
    {
      "@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces/eth0"
    },
    {
      "@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces/eth1"
    },
    {
      "@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces/usb0"
    }
  ],
  "Members@odata.count": 4,
  "Name": "Ethernet Network Interface Collection"
}
```

redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id> Gets the properties of the specified Ethernet interface.
URL /redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id>

Method
GET

Parameters
ethernetinterface_id: Network interface name

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/Managers/bmc/EthernetInterfaces/eth0
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces/eth0",
  "@odata.type": "#EthernetInterface.v1_9_0.EthernetInterface",
  "DHCPv4": {
    "DHCPEnabled": true,
    "UseDNSServers": true,
    "UseDomainName": true,
    "UseNTPServers": true
  }
}
```

```

    },
    "DHCPv6": {
        "OperatingMode": "Enabled",
        "UseDNSServers": true,
        "UseDomainName": true,
        "UseNTPServers": true
    },
    "Description": "Management Network Interface",
    "EthernetInterfaceType": "Physical",
    "FQDN": "ast2600-ags8200",
    "HostName": "ast2600-ags8200",
    "IPv4Addresses": [
        {
            "Address": "10.102.4.51",
            "AddressOrigin": "DHCP",
            "Gateway": "10.102.110.254",
            "SubnetMask": "255.255.0.0"
        },
        {
            "Address": "10.102.8.111",
            "AddressOrigin": "Static",
            "Gateway": "10.102.110.254",
            "SubnetMask": "255.255.0.0"
        }
    ],
    "IPv4StaticAddresses": [
        {
            "Address": "10.102.8.111",
            "AddressOrigin": "Static",
            "Gateway": "10.102.110.254",
            "SubnetMask": "255.255.0.0"
        }
    ],
    "IPv6AddressPolicyTable": [],
    "IPv6Addresses": [
        {
            "Address": "fe80::44a:bcff:fe45:5570",
            "AddressOrigin": "LinkLocal",
            "PrefixLength": 64
        }
    ],
    "IPv6DefaultGateway": "0:0:0:0:0:0:0:0",
    "IPv6StaticAddresses": [],
    "Id": "eth0",
    "InterfaceEnabled": true,
    "LinkStatus": "LinkUp",
    "MACAddress": "06:4a:bc:45:55:70",
    "MTUSize": 1500,
    "Name": "Manager Ethernet Interface",
    "NameServers": [
        "8.8.8.8"
    ],
    "SpeedMbps": 0,
    "StatelessAddressAutoConfig": {
        "IPv6AutoConfigEnabled": false
    },
    "StaticNameServers": [],
    "Status": {
        "State": "Enabled"
    }
}

```

Method

PATCH

Parameters

HostName(option)
FQDN(option)
IPv4StaticAddresses:{"Address","SubnetMask","Gateway"}(option)
MACAddress(option)
StaticNameServers(option)
IPv6StaticAddresses:{"Address","PrefixLength"}(option)
DHCPv4:{"DHCPEnabled","UseDNSServers",
"UseNTPServers","UseDomainName"}(option)
DHCPv6:{"OperatingMode","UseDNSServers",
"UseNTPServers","UseDomainName"}(option)
InterfaceEnabled(option)

Request Example

Set the properties of the specified Ethernet interface.

```
curl -k -H "X-Auth-Token: $token" -X PATCH -d '{"IPv4StaticAddresses":  
  [{"Address": "10.7.8.7", "SubnetMask": "255.255.0.0", "Gateway": "10.7.8.1"}]}'  
https://${bmc_ip}/redfish/v1/Managers/bmc/EthernetInterfaces/eth0/
```

redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id>/VLANs Gets the collection of VLAN interfaces for the specified Ethernet interface.

URL
`/redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id>/VLANs`

Method

GET

Parameters

ethernetinterface_id: Network interface name

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/  
Managers/bmc/EthernetInterfaces/eth0/VLANs/
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces/eth0/VLANs",  
}
```

```
"@odata.type":
"#VlanNetworkInterfaceCollection.VlanNetworkInterfaceCollection",
"Members": [],
"Members@odata.count": 0,
"Name": "VLAN Network Interface Collection"
}
```

Description: Create the vlan interface for the specified Ethernet interface.

Method: Post

Parameter:

1. ethernetinterface_id: Network interface name

Request Example:

```
curl -k -H "X-Auth-Token: $token" -X POST -d @eth0.json https://${bmc_ip}/
redfish/v1/Managers/bmc/EthernetInterfaces/eth0/VLANs/
```

Response

Example:

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "The resource has been created successfully",
      "MessageArgs": [],
      "MessageId": "Base.1.8.1.Created",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}
```

redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id>/VLANs/<vlan_id> Gets the collection of VLAN interfaces for the specified Ethernet interface.

URL

/redfish/v1/Managers/bmc/EthernetInterfaces/<ethernetinterface_id>/VLANs/<vlan_id>

Method

GET

Parameters

ethernetinterface_id: Network interface name

vlan_id: vlan identify number

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET
https://${bmc_ip}/ redfish/v1/Managers/bmc/EthernetInterfaces/eth0/VLANs/
eth0_1
```

Response Example

```
{
```

```
"@odata.id": "/redfish/v1/Managers/bmc/EthernetInterfaces/eth0/VLANs/eth0_1",
"@odata.type": "#VlanNetworkInterface.v1_1_0.VlanNetworkInterface",
"DHCPv4": {
  "DHCPEnabled": false,
  "UseDNSServers": true,
  "UseDomainName": true,
  "UseNTPServers": true
},
"DHCPv6": {
  "OperatingMode": "Disabled",
  "UseDNSServers": true,
  "UseDomainName": true,
  "UseNTPServers": true
},
"IPv4Addresses": [
  {
    "Address": "169.254.218.194",
    "AddressOrigin": "IPv4LinkLocal",
    "Gateway": "0.0.0.0",
    "SubnetMask": "255.255.0.0"
  }
],
"IPv4StaticAddresses": [],
"IPv6AddressPolicyTable": [],
"IPv6Addresses": [
  {
    "Address": "fe80::1644:8fff:fe6d:a06",
    "AddressOrigin": "LinkLocal",
    "AddressState": null,
    "PrefixLength": 64
  }
],
"IPv6DefaultGateway": "0:0:0:0:0:0:0:0",
"IPv6StaticAddresses": [],
"Id": "eth0_1",
"Name": "VLAN Network Interface",
"StaticNameServers": [],
"VLANEnable": true,
"VLANId": 1
}
```

Method

PATCH

Parameters

"VLANId"

"VLANEnable"

"IPv4StaticAddresses": {"Address", "SubnetMask", "Gateway"} (option)

"StaticNameServers" (option)

"IPv6StaticAddresses": {"Address", "PrefixLength"} (option)

"DHCPv4": {"DHCPEnabled", "UseDNSServers", "UseNTPServers",

"UseDomainName"} (option)

"DHCPv6": {"OperatingMode", "UseDNSServers", "UseNTPServers",

"UseDomainName"} (option)

Request Example

Set the properties of the specified VLAN interface.

```
curl -k -H "X-Auth-Token: $token" -X PATCH -d @vlan.json
https://${bmc_ip}/redfish/v1/Managers/bmc/EthernetInterfaces/eth0/VLANs/
eth0_1
```

Method

DELETE

Request Example

Delete the specified VLAN interface.

```
curl -k -H "X-Auth-Token: $token" -X DELETE
https://${bmc_ip}/redfish/v1/Managers/bmc/EthernetInterfaces/eth0/VLANs/
eth0_1
```

redfish/v1/Managers/bmc/NetworkProtocol Gets the protocols of the manager network service.
URL
`/redfish/v1/Managers/bmc/NetworkProtocol`

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/
Managers/bmc/NetworkProtocol
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol",
  "@odata.type": "#ManagerNetworkProtocol.v1_5_0.ManagerNetworkProtocol",
  "Description": "Manager Network Service",
  "FQDN": "ast2600-ags8200",
  "HTTP": {
    "Port": null,
    "ProtocolEnabled": false
  },
  "HTTPS": {
    "Certificates": {
```

```
      "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/
Certificates"
    },
    "Port": 443,
    "ProtocolEnabled": true
  },
  "HostName": "ast2600-ags8200",
  "IPMI": {
    "Port": 623,
    "ProtocolEnabled": true
  },
  "Id": "NetworkProtocol",
  "NTP": {
    "NTPServers": [],
    "ProtocolEnabled": true
  },
  "Name": "Manager Network Protocol",
  "SSH": {
    "Port": 22,
    "ProtocolEnabled": true
  },
  "Status": {
    "Health": "OK",
    "HealthRollup": "OK",
    "State": "Enabled"
  }
}
```

Method

PATCH

Parameters

"HostName" (option)

"NTP":{"NTPServers","ProtocolEnabled","TimeZones"} (option)

"IPMI":{"ProtocolEnabled"}(option)

"SSH":{"ProtocolEnabled"}(option)

Request Example

```
curl -k -H "X-Auth-Token: $token" -X PATCH -d @protocol.json
https://${bmc_ip}/redfish/v1/Managers/bmc/NetworkProtocol
```

Platform Health and Peripheral Monitoring

The commands listed in this section include fan controller, sensors, PSU, and UCD related information.

redfish/v1/Chassis/ Gets the chassis information.

URL

/redfish/v1/Chassis/

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/Chassis/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Chassis",
  "@odata.type": "#ChassisCollection.ChassisCollection",
  "Members": [
    {
      "@odata.id": "/redfish/v1/Chassis/Baseboard"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/FAN1"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/FAN2"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/FAN3"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/FAN4"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/FAN5"
    },
    {
      "@odata.id": "/redfish/v1/Chassis/FAN6"
    }
  ]
}
```

```
"@odata.id": "/redfish/v1/Chassis/FAN7"

},
{
"@odata.id": "/redfish/v1/Chassis/FAN8"

},
{
"@odata.id": "/redfish/v1/Chassis/FAN9"

},
{
"@odata.id": "/redfish/v1/Chassis/FAN10"

},
{
"@odata.id": "/redfish/v1/Chassis/FAN11"

},
{
"@odata.id": "/redfish/v1/Chassis/FAN12"

},
{
"@odata.id": "/redfish/v1/Chassis/FAN13"

},
{
"@odata.id": "/redfish/v1/Chassis/FAN14"

},
{
"@odata.id": "/redfish/v1/Chassis/FAN15"

},
{
"@odata.id": "/redfish/v1/Chassis/HSBP_Adapter"

},
{
"@odata.id": "/redfish/v1/Chassis/HSBP_F1_1"

},
{
"@odata.id": "/redfish/v1/Chassis/HSBP_F1_2"

},
{
"@odata.id": "/redfish/v1/Chassis/HSBP_F1_3"

},
{
"@odata.id": "/redfish/v1/Chassis/Middle_BP"

},
{
"@odata.id": "/redfish/v1/Chassis/OAM_fru"

},
{
"@odata.id": "/redfish/v1/Chassis/OCN_NIC"

},
{
"@odata.id": "/redfish/v1/Chassis/PCIE_Switch"
```

```
,
{
"@odata.id": "/redfish/v1/Chassis/PDB"

},
{
"@odata.id": "/redfish/v1/Chassis/RISER_2_F1"

},
{
"@odata.id": "/redfish/v1/Chassis/RISER_3_F1"

},
{
"@odata.id": "/redfish/v1/Chassis/UBB"

}
],
"Members@odata.count": 28,
"Name": "Chassis Collection"

}
```

**redfish/v1/Chassis/
Baseboard** Gets the properties of the chassis resource.

URL

/redfish/v1/Chassis/Baseboard

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/Chassis/Baseboard
```

Response Example

```
{
"@odata.id": "/redfish/v1/Chassis/Baseboard",
"@odata.type": "#Chassis.v1_22_0.Chassis",
"Actions": {
"#Chassis.Reset": {
"@Redfish.ActionInfo": "/redfish/v1/Chassis/Baseboard/ResetActionInfo",
"target": "/redfish/v1/Chassis/Baseboard/Actions/Chassis.Reset"
}
}
},
"AssetTag": "N/A",
"ChassisType": "RackMount",
"Id": "Baseboard",
```

```
"IndicatorLED": "Off",
"Links": {
  "ComputerSystems": [
    {
      "@odata.id": "/redfish/v1/Systems/system"
    }
  ],
  "ManagedBy": [
    {
      "@odata.id": "/redfish/v1/Managers/bmc"
    }
  ]
},
"LocationIndicatorActive": false,
"Manufacturer": "Edgecore",
"Model": "Main Board",
"Name": "Baseboard",
"PCIeDevices": {
  "@odata.id": "/redfish/v1/Systems/system/PCIeDevices"
},
"PartNumber": "142000003751H",
"Power": {
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power"
},
"PowerState": "On",
"Product_Manufacturer": "Edgecore",
"Product_Model": "AGS8200",
"Product_PartNumber": "FOODC8280001H",
"Product_SerialNumber": "RD00000030",
"Sensors": {
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors"
},
"SerialNumber": "RD00000001",
"Status": {
  "Health": "OK",
  "HealthRollup": "OK",
  "State": "Enabled"
},
"Thermal": {
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal"
}
}
```

Method

PATCH

Parameters

"IndicatorLED"

Request Example

Change the local LED status.

```
curl -k -H "X-Auth-Token: $token" -X PATCH https://${bmc_ip}/redfish/v1/Chassis/Baseboard -d '{"IndicatorLED":"Blinking"}'
```

Response Example

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "Successfully Completed Request",
      "MessageArgs": [],
      "MessageId": "Base.1.8.1.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}
```

**redfish/v1/Chassis/
Baseboard/Power** Gets the properties of the chassis power.

URL

/redfish/v1/Chassis/Baseboard/Power

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/Chassis/Baseboard/Power
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power",
  "@odata.type": "#Power.v1_5_2.Power",
  "Id": "Power",
  "Name": "Power",
  "PowerControl": [
    {
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/PowerControl/0",
      "@odata.type": "#Power.v1_0_0.PowerControl",
      "MemberId": "0",
      "Name": "Chassis Power Control",

```

```
"PowerLimit": {
  "LimitException": "NoAction"
}

},
"PowerSupplies": [
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/PowerSupplies/0",
  "EfficiencyPercent": 90,
  "Manufacturer": "$BOARD_MANUFACTURER",
  "MemberId": "0",
  "Model": "$BOARD_PRODUCT_NAME",
  "Name": "PSU1",
  "PartNumber": "$BOARD_PART_NUMBER",
  "PowerOutputWatts": 417.5,
  "SerialNumber": "$BOARD_SERIAL_NUMBER",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/PowerSupplies/1",
  "EfficiencyPercent": 90,
  "Manufacturer": "$BOARD_MANUFACTURER",
  "MemberId": "1",
  "Model": "$BOARD_PRODUCT_NAME",
  "Name": "PSU2",
  "PartNumber": "$BOARD_PART_NUMBER",
  "PowerOutputWatts": 398.5,
  "SerialNumber": "$BOARD_SERIAL_NUMBER",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/PowerSupplies/2",
  "EfficiencyPercent": 90,
  "Manufacturer": "$PBOARD_MANUFACTURER",
  "MemberId": "2",
  "Model": "$BOARD_PRODUCT_NAME",
  "Name": "PSU3",
  "PartNumber": "$BOARD_PART_NUMBER",
  "PowerOutputWatts": 432.5,
  "SerialNumber": "$BOARD_SERIAL_NUMBER",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/PowerSupplies/3",
  "EfficiencyPercent": 90,
  "Manufacturer": "DELTA",
  "MemberId": "3",
  "Model": "DPS-2700AB-1 A",
```

```
"Name": "PSU7",
"PartNumber": "000000000000000",
"PowerOutputWatts": 547.0,
"SerialNumber": "KPID444025Z",
"Status": {
  "Health": "OK",
  "State": "Enabled"
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/PowerSupplies/4",
  "EfficiencyPercent": 90,
  "Manufacturer": "DELTA",
  "MemberId": "4",
  "Model": "DPS-2700AB-1 A",
  "Name": "PSU8",
  "PartNumber": "000000000000000",
  "PowerOutputWatts": 0.0,
  "SerialNumber": "KPID444025P",
  "Status": {
    "Health": "Critical",
    "State": "Enabled"
  }
}

},
],
"Redundancy": [],
"Voltages": [
  {
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/0",
    "@odata.type": "#Power.v1_0_0.Voltage",
    "LowerThresholdCritical": 1.26,
    "LowerThresholdNonCritical": 1.44,
    "MaxReadingRange": 300.0,
    "MemberId": "0",
    "MinReadingRange": 0.0,
    "Name": "CPU0 FIVRA Vout",
    "ReadingVolts": 1.765,
    "Status": {
      "Health": "OK",
      "State": "Enabled"
    }
  },
  {
    "UpperThresholdCritical": 2.34,
    "UpperThresholdNonCritical": 2.16
  },
  {
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/1",
    "@odata.type": "#Power.v1_0_0.Voltage",
    "LowerThresholdCritical": 0.77,
    "LowerThresholdNonCritical": 0.88,
    "MaxReadingRange": 300.0,
    "MemberId": "1",
    "MinReadingRange": 0.0,
    "Name": "CPU0 PVCCD Vout",
    "ReadingVolts": 1.141,
    "Status": {
      "Health": "OK",
      "State": "Enabled"
    }
  }
],
```

```
"UpperThresholdCritical": 1.43,
"UpperThresholdNonCritical": 1.32

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/2",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 1.26,
"LowerThresholdNonCritical": 1.44,
"MaxReadingRange": 300.0,
"MemberId": "2",
"MinReadingRange": 0.0,
"Name": "CPU0 PVCCIN Vout",
"ReadingVolts": 1.792,
"Status": {
"Health": "OK",
"State": "Enabled"
},
"UpperThresholdCritical": 2.34,
"UpperThresholdNonCritical": 2.16

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/3",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 1.26,
"LowerThresholdNonCritical": 1.44,
"MaxReadingRange": 300.0,
"MemberId": "3",
"MinReadingRange": 0.0,
"Name": "CPU1 FIVRA Vout",
"ReadingVolts": 1.79,
"Status": {
"Health": "OK",
"State": "Enabled"
},
"UpperThresholdCritical": 2.34,
"UpperThresholdNonCritical": 2.16

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/4",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 0.77,
"LowerThresholdNonCritical": 0.88,
"MaxReadingRange": 300.0,
"MemberId": "4",
"MinReadingRange": 0.0,
"Name": "CPU1 PVCCD Vout",
"ReadingVolts": 1.14,
"Status": {
"Health": "OK",
"State": "Enabled"
},
"UpperThresholdCritical": 1.43,
"UpperThresholdNonCritical": 1.32

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/5",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 1.26,
```

```
"LowerThresholdNonCritical": 1.44,  
"MaxReadingRange": 300.0,  
"MemberId": "5",  
"MinReadingRange": 0.0,  
"Name": "CPU1 PVCCIN Vout",  
"ReadingVolts": 1.789,  
"Status": {  
  "Health": "OK",  
  "State": "Enabled"  
},  
"UpperThresholdCritical": 2.34,  
"UpperThresholdNonCritical": 2.16  
  
{  
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/6",  
  "@odata.type": "#Power.v1_0_0.Voltage",  
  "LowerThresholdCritical": 1.26,  
  "LowerThresholdNonCritical": 1.44,  
  "MaxReadingRange": 20.0,  
  "MemberId": "6",  
  "MinReadingRange": 0.0,  
  "Name": "EHV CPU0 Vout",  
  "ReadingVolts": 1.796,  
  "Status": {  
    "Health": "OK",  
    "State": "Enabled"  
  },  
  "UpperThresholdCritical": 2.34,  
  "UpperThresholdNonCritical": 2.16  
  
  {  
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/7",  
    "@odata.type": "#Power.v1_0_0.Voltage",  
    "LowerThresholdCritical": 1.26,  
    "LowerThresholdNonCritical": 1.44,  
    "MaxReadingRange": 20.0,  
    "MemberId": "7",  
    "MinReadingRange": 0.0,  
    "Name": "EHV CPU1 Vout",  
    "ReadingVolts": 1.8,  
    "Status": {  
      "Health": "OK",  
      "State": "Enabled"  
    },  
    "UpperThresholdCritical": 2.34,  
    "UpperThresholdNonCritical": 2.16  
  },  
  
  {  
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/8",  
    "@odata.type": "#Power.v1_0_0.Voltage",  
    "LowerThresholdCritical": 0.7,  
    "LowerThresholdNonCritical": 0.8,  
    "MaxReadingRange": 300.0,  
    "MemberId": "8",  
    "MinReadingRange": 0.0,  
    "Name": "FAON CPU0 Vout",  
    "ReadingVolts": 1.054,  
    "Status": {  
      "Health": "OK",
```

```
"State": "Enabled"

},
"UpperThresholdCritical": 1.3,
"UpperThresholdNonCritical": 1.2

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/9",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 0.7,
"LowerThresholdNonCritical": 0.8,
"MaxReadingRange": 300.0,
"MemberId": "9",
"MinReadingRange": 0.0,
"Name": "FAON CPU1 Vout",
"ReadingVolts": 1.054,
"Status": {
"Health": "Critical",
"State": "Enabled"
}

},
"UpperThresholdCritical": 1.3,
"UpperThresholdNonCritical": 1.2

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/10",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 88.0,
"LowerThresholdNonCritical": 90.0,
"MaxReadingRange": 300.0,
"MemberId": "10",
"MinReadingRange": 0.0,
"Name": "PSU1 54VSB Vin",
"ReadingVolts": 224.0,
"Status": {
"Health": "OK",
"State": "Enabled"
}

},
"UpperThresholdCritical": 264.08,
"UpperThresholdNonCritical": 240.8

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/11",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 50.3,
"LowerThresholdNonCritical": 51.3,
"MaxReadingRange": 300.0,
"MemberId": "11",
"MinReadingRange": 0.0,
"Name": "PSU1 54VSB Vout",
"ReadingVolts": 53.701,
"Status": {
"Health": "OK",
"State": "Enabled"
}

},
"UpperThresholdCritical": 59.5,
"UpperThresholdNonCritical": 58.5

},
{
```

```
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/12",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 88.0,
"LowerThresholdNonCritical": 90.0,
"MaxReadingRange": 300.0,
"MemberId": "12",
"MinReadingRange": 0.0,
"Name": "PSU2 54VSB Vin",
"ReadingVolts": 224.25,
"Status": {
  "Health": "OK",
  "State": "Enabled"
},
"UpperThresholdCritical": 264.08,
"UpperThresholdNonCritical": 240.8

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/13",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 50.3,
"LowerThresholdNonCritical": 51.3,
"MaxReadingRange": 300.0,
"MemberId": "13",
"MinReadingRange": 0.0,
"Name": "PSU2 54VSB Vout",
"ReadingVolts": 53.957,
"Status": {
  "Health": "OK",
  "State": "Enabled"
},
"UpperThresholdCritical": 59.5,
"UpperThresholdNonCritical": 58.5

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/14",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 88.0,
"LowerThresholdNonCritical": 90.0,
"MaxReadingRange": 300.0,
"MemberId": "14",
"MinReadingRange": 0.0,
"Name": "PSU3 54VSB Vin",
"ReadingVolts": 224.5,
"Status": {
  "Health": "OK",
  "State": "Enabled"
},
"UpperThresholdCritical": 264.08,
"UpperThresholdNonCritical": 240.8

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/15",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 50.3,
"LowerThresholdNonCritical": 51.3,
"MaxReadingRange": 300.0,
"MemberId": "15",
"MinReadingRange": 0.0,
"Name": "PSU3 54VSB Vout",
```

```
"ReadingVolts": 54.021,
"Status": {
  "Health": "OK",
  "State": "Enabled"
},
"UpperThresholdCritical": 59.5,
"UpperThresholdNonCritical": 58.5
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/16",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 0.0,
  "LowerThresholdNonCritical": 0.0,
  "MaxReadingRange": 300.0,
  "MemberId": "16",
  "MinReadingRange": 0.0,
  "Name": "PSU7 54VSB Vin",
  "ReadingVolts": 225.0,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 264.08,
  "UpperThresholdNonCritical": 240.8
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/17",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 0.0,
  "LowerThresholdNonCritical": 0.0,
  "MaxReadingRange": 300.0,
  "MemberId": "17",
  "MinReadingRange": 0.0,
  "Name": "PSU7 54VSB Vout",
  "ReadingVolts": 12.164,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 14.0,
  "UpperThresholdNonCritical": 12.6
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/18",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 88.0,
  "LowerThresholdNonCritical": 90.0,
  "MaxReadingRange": 300.0,
  "MemberId": "18",
  "MinReadingRange": 0.0,
  "Name": "PSU8 54VSB Vin",
  "ReadingVolts": 0.0,
  "Status": {
    "Health": "Critical",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 264.08,
  "UpperThresholdNonCritical": 240.8
}
```

```
    },
    {
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/19",
      "@odata.type": "#Power.v1_0_0.Voltage",
      "LowerThresholdCritical": 10.3,
      "LowerThresholdNonCritical": 11.4,
      "MaxReadingRange": 300.0,
      "MemberId": "19",
      "MinReadingRange": 0.0,
      "Name": "PSU8 54VSB Vout",
      "ReadingVolts": 0.0,
      "Status": {
        "Health": "Critical",
        "State": "Enabled"
      }
    },
    {
      "UpperThresholdCritical": 14.0,
      "UpperThresholdNonCritical": 12.6
    },
    {
      {
        "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/20",
        "@odata.type": "#Power.v1_0_0.Voltage",
        "LowerThresholdCritical": 0.7,
        "LowerThresholdNonCritical": 0.97,
        "MaxReadingRange": 2.5,
        "MemberId": "20",
        "MinReadingRange": 0.0,
        "Name": "PVNN MAIN CPU0",
        "ReadingVolts": 1.005,
        "Status": {
          "Health": "OK",
          "State": "Enabled"
        }
      },
      {
        "UpperThresholdCritical": 1.3,
        "UpperThresholdNonCritical": 1.03
      }
    },
    {
      {
        "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/21",
        "@odata.type": "#Power.v1_0_0.Voltage",
        "LowerThresholdCritical": 0.7,
        "LowerThresholdNonCritical": 0.97,
        "MaxReadingRange": 2.5,
        "MemberId": "21",
        "MinReadingRange": 0.0,
        "Name": "PVNN MAIN CPU1",
        "ReadingVolts": 1.003,
        "Status": {
          "Health": "OK",
          "State": "Enabled"
        }
      },
      {
        "UpperThresholdCritical": 1.3,
        "UpperThresholdNonCritical": 1.03
      }
    },
    {
      {
        "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/22",
        "@odata.type": "#Power.v1_0_0.Voltage",
        "LowerThresholdCritical": 0.63,
        "LowerThresholdNonCritical": 0.855,
        "MaxReadingRange": 2.5,
```

```
"MemberId": "22",
"MinReadingRange": 0.0,
"Name": "PVNN PCH",
"ReadingVolts": 0.898,
"Status": {
  "Health": "OK",
  "State": "Enabled"
},
"UpperThresholdCritical": 1.17,
"UpperThresholdNonCritical": 0.941
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/23",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 0.0,
  "LowerThresholdNonCritical": 0.0,
  "MaxReadingRange": 24.999999627470977,
  "MemberId": "23",
  "MinReadingRange": 0.0,
  "Name": "PVPP HBM CPU0",
  "ReadingVolts": 0.02,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 15.6,
  "UpperThresholdNonCritical": 2.708
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/24",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 0.0,
  "LowerThresholdNonCritical": 0.0,
  "MaxReadingRange": 24.999999627470977,
  "MemberId": "24",
  "MinReadingRange": 0.0,
  "Name": "PVPP HBM CPU1",
  "ReadingVolts": 0.02,
  "Status": {
    "Health": "Critical",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 15.6,
  "UpperThresholdNonCritical": 2.708
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/25",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 2.1,
  "LowerThresholdNonCritical": 2.4,
  "MaxReadingRange": 5.0,
  "MemberId": "25",
  "MinReadingRange": 0.0,
  "Name": "VBATT",
  "ReadingVolts": 2.836,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
```

```
    },
    "UpperThresholdCritical": 3.9,
    "UpperThresholdNonCritical": 3.6

  },
  {
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/26",
    "@odata.type": "#Power.v1_0_0.Voltage",
    "LowerThresholdCritical": 8.4,
    "LowerThresholdNonCritical": 4.25,
    "MaxReadingRange": 24.999999627470977,
    "MemberId": "26",
    "MinReadingRange": 0.0,
    "Name": "VCC12V CPU0 DIMM",
    "ReadingVolts": 12.76,
    "Status": {
      "Health": "OK",
      "State": "Enabled"
    }
  },
  "UpperThresholdCritical": 15.6,
  "UpperThresholdNonCritical": 15.0

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/27",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 8.4,
  "LowerThresholdNonCritical": 4.25,
  "MaxReadingRange": 24.999999627470977,
  "MemberId": "27",
  "MinReadingRange": 0.0,
  "Name": "VCC12V CPU1 DIMM",
  "ReadingVolts": 12.86,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
"UpperThresholdCritical": 15.6,
"UpperThresholdNonCritical": 15.0

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/28",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 8.4,
  "LowerThresholdNonCritical": 11.04,
  "MaxReadingRange": 24.999999627470977,
  "MemberId": "28",
  "MinReadingRange": 0.0,
  "Name": "VCC12V HSBP",
  "ReadingVolts": 12.71,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
"UpperThresholdCritical": 15.6,
"UpperThresholdNonCritical": 13.6

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/29",
  "@odata.type": "#Power.v1_0_0.Voltage",
```

```
"LowerThresholdCritical": 8.4,
"LowerThresholdNonCritical": 11.04,
"MaxReadingRange": 24.999999627470977,
"MemberId": "29",
"MinReadingRange": 0.0,
"Name": "VCC12V RISER",
"ReadingVolts": 12.86,
"Status": {
  "Health": "OK",
  "State": "Enabled"
},
"UpperThresholdCritical": 15.6,
"UpperThresholdNonCritical": 13.6
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/30",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 0.735,
  "LowerThresholdNonCritical": 0.997,
  "MaxReadingRange": 2.5,
  "MemberId": "30",
  "MinReadingRange": 0.0,
  "Name": "VCC1V05 PCH",
  "ReadingVolts": 1.052,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 1.365,
  "UpperThresholdNonCritical": 1.082
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/31",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 1.26,
  "LowerThresholdNonCritical": 1.728,
  "MaxReadingRange": 5.0,
  "MemberId": "31",
  "MinReadingRange": 0.0,
  "Name": "VCC1V8 PCH",
  "ReadingVolts": 1.826,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 2.34,
  "UpperThresholdNonCritical": 1.863
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/32",
  "@odata.type": "#Power.v1_0_0.Voltage",
  "LowerThresholdCritical": 2.31,
  "LowerThresholdNonCritical": 3.135,
  "MaxReadingRange": 5.0,
  "MemberId": "32",
  "MinReadingRange": 0.0,
  "Name": "VCC3V3",
  "ReadingVolts": 3.3,
  "Status": {
```

```
"Health": "OK",
"State": "Enabled"

},
"UpperThresholdCritical": 4.29,
"UpperThresholdNonCritical": 3.465

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/33",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 2.31,
"LowerThresholdNonCritical": 3.003,
"MaxReadingRange": 5.0,
"MemberId": "33",
"MinReadingRange": 0.0,
"Name": "VCC3V3 RISER",
"ReadingVolts": 3.31,
"Status": {
"Health": "OK",
"State": "Enabled"

},
"UpperThresholdCritical": 4.29,
"UpperThresholdNonCritical": 3.597

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/34",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 2.31,
"LowerThresholdNonCritical": 3.217,
"MaxReadingRange": 5.0,
"MemberId": "34",
"MinReadingRange": 0.0,
"Name": "VCC3V3 SB",
"ReadingVolts": 3.31,
"Status": {
"Health": "OK",
"State": "Enabled"

},
"UpperThresholdCritical": 4.29,
"UpperThresholdNonCritical": 3.383

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Power#/Voltages/35",
"@odata.type": "#Power.v1_0_0.Voltage",
"LowerThresholdCritical": 3.5,
"LowerThresholdNonCritical": 4.75,
"MaxReadingRange": 13.888888336994052,
"MemberId": "35",
"MinReadingRange": 0.0,
"Name": "VCC5V",
"ReadingVolts": 5.1222,
"Status": {
"Health": "OK",
"State": "Enabled"

},
"UpperThresholdCritical": 6.5,
"UpperThresholdNonCritical": 6.25

}
}
```

```
]
}
```

**redfish/v1/Chassis/
Baseboard/Thermal** Gets the properties of the thermal sensor resource.

URL

/redfish/v1/Chassis/Baseboard/Thermal

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/  
Chassis/Baseboard/Thermal
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal",  
  "@odata.type": "#Thermal.v1_4_0.Thermal",  
  "Fans": [  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/0",  
      "@odata.type": "#Thermal.v1_3_0.Fan",  
      "LowerThresholdCritical": 1750,  
      "LowerThresholdNonCritical": 2000,  
      "MaxReadingRange": 25000,  
      "MemberId": "0",  
      "MinReadingRange": 0,  
      "Name": "Fan front 1",  
      "Reading": 7160,  
      "ReadingUnits": "RPM",  
      "Status": {  
        "Health": "OK",  
        "State": "Enabled"  
      }  
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/1",  
      "@odata.type": "#Thermal.v1_3_0.Fan",  
      "LowerThresholdCritical": 1750,  
      "LowerThresholdNonCritical": 2000,  
      "MaxReadingRange": 25000,  
      "MemberId": "1",  
      "MinReadingRange": 0,  
      "Name": "Fan front 10",  
      "Reading": 7160,  
      "ReadingUnits": "RPM",  
      "Status": {  
        "Health": "OK",  
        "State": "Enabled"  
      }  
    }  
  ]  
}
```

```
"Status": {
  "Health": "OK",
  "State": "Enabled"
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/2",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "2",
  "MinReadingRange": 0,
  "Name": "Fan front 11",
  "Reading": 7339,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/3",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "3",
  "MinReadingRange": 0,
  "Name": "Fan front 12",
  "Reading": 7160,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/4",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "4",
  "MinReadingRange": 0,
  "Name": "Fan front 13",
  "Reading": 7160,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/5",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
```

```
"LowerThresholdNonCritical": 2000,
"MaxReadingRange": 25000,
"MemberId": "5",
"MinReadingRange": 0,
"Name": "Fan front 14",
"Reading": 7160,
"ReadingUnits": "RPM",
"Status": {
  "Health": "OK",
  "State": "Enabled"
}
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/6",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "6",
  "MinReadingRange": 0,
  "Name": "Fan front 15",
  "Reading": 7160,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/7",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "7",
  "MinReadingRange": 0,
  "Name": "Fan front 2",
  "Reading": 7160,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/8",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "8",
  "MinReadingRange": 0,
  "Name": "Fan front 3",
  "Reading": 7160,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}
```

```
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/9",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "9",
  "MinReadingRange": 0,
  "Name": "Fan front 4",
  "Reading": 7160,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/10",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "10",
  "MinReadingRange": 0,
  "Name": "Fan front 5",
  "Reading": 6981,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/11",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "11",
  "MinReadingRange": 0,
  "Name": "Fan front 6",
  "Reading": 6981,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/12",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "12",
  "MinReadingRange": 0,
```

```
"Name": "Fan front 7",
"Reading": 7339,
"ReadingUnits": "RPM",
"Status": {
  "Health": "OK",
  "State": "Enabled"
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/13",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "13",
  "MinReadingRange": 0,
  "Name": "Fan front 8",
  "Reading": 7160,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/14",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "14",
  "MinReadingRange": 0,
  "Name": "Fan front 9",
  "Reading": 7160,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/15",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "15",
  "MinReadingRange": 0,
  "Name": "Fan rear 1",
  "Reading": 8413,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
```

```
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/16",
"@odata.type": "#Thermal.v1_3_0.Fan",
"LowerThresholdCritical": 1750,
"LowerThresholdNonCritical": 2000,
"MaxReadingRange": 25000,
"MemberId": "16",
"MinReadingRange": 0,
"Name": "Fan rear 10",
"Reading": 8413,
"ReadingUnits": "RPM",
"Status": {
  "Health": "OK",
  "State": "Enabled"
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/17",
"@odata.type": "#Thermal.v1_3_0.Fan",
"LowerThresholdCritical": 1750,
"LowerThresholdNonCritical": 2000,
"MaxReadingRange": 25000,
"MemberId": "17",
"MinReadingRange": 0,
"Name": "Fan rear 11",
"Reading": 8592,
"ReadingUnits": "RPM",
"Status": {
  "Health": "OK",
  "State": "Enabled"
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/18",
"@odata.type": "#Thermal.v1_3_0.Fan",
"LowerThresholdCritical": 1750,
"LowerThresholdNonCritical": 2000,
"MaxReadingRange": 25000,
"MemberId": "18",
"MinReadingRange": 0,
"Name": "Fan rear 12",
"Reading": 8592,
"ReadingUnits": "RPM",
"Status": {
  "Health": "OK",
  "State": "Enabled"
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/19",
"@odata.type": "#Thermal.v1_3_0.Fan",
"LowerThresholdCritical": 1750,
"LowerThresholdNonCritical": 2000,
"MaxReadingRange": 25000,
"MemberId": "19",
"MinReadingRange": 0,
"Name": "Fan rear 13",
"Reading": 8592,
"ReadingUnits": "RPM",
"Status": {
```

```
"Health": "OK",
"State": "Enabled"

}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/20",
"@odata.type": "#Thermal.v1_3_0.Fan",
"LowerThresholdCritical": 1750,
"LowerThresholdNonCritical": 2000,
"MaxReadingRange": 25000,
"MemberId": "20",
"MinReadingRange": 0,
"Name": "Fan rear 14",
"Reading": 8592,
"ReadingUnits": "RPM",
"Status": {
"Health": "OK",
"State": "Enabled"
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/21",
"@odata.type": "#Thermal.v1_3_0.Fan",
"LowerThresholdCritical": 1750,
"LowerThresholdNonCritical": 2000,
"MaxReadingRange": 25000,
"MemberId": "21",
"MinReadingRange": 0,
"Name": "Fan rear 15",
"Reading": 8413,
"ReadingUnits": "RPM",
"Status": {
"Health": "OK",
"State": "Enabled"
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/22",
"@odata.type": "#Thermal.v1_3_0.Fan",
"LowerThresholdCritical": 1750,
"LowerThresholdNonCritical": 2000,
"MaxReadingRange": 25000,
"MemberId": "22",
"MinReadingRange": 0,
"Name": "Fan rear 2",
"Reading": 8413,
"ReadingUnits": "RPM",
"Status": {
"Health": "OK",
"State": "Enabled"
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/23",
"@odata.type": "#Thermal.v1_3_0.Fan",
"LowerThresholdCritical": 1750,
"LowerThresholdNonCritical": 2000,
```

```
"MaxReadingRange": 25000,
"MemberId": "23",
"MinReadingRange": 0,
"Name": "Fan rear 3",
"Reading": 8413,
"ReadingUnits": "RPM",
"Status": {
  "Health": "OK",
  "State": "Enabled"
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/24",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "24",
  "MinReadingRange": 0,
  "Name": "Fan rear 4",
  "Reading": 8413,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/25",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "25",
  "MinReadingRange": 0,
  "Name": "Fan rear 5",
  "Reading": 8234,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/26",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "LowerThresholdCritical": 1750,
  "LowerThresholdNonCritical": 2000,
  "MaxReadingRange": 25000,
  "MemberId": "26",
  "MinReadingRange": 0,
  "Name": "Fan rear 6",
  "Reading": 8413,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

}
```

```
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/27",  
      "@odata.type": "#Thermal.v1_3_0.Fan",  
      "LowerThresholdCritical": 1750,  
      "LowerThresholdNonCritical": 2000,  
      "MaxReadingRange": 25000,  
      "MemberId": "27",  
      "MinReadingRange": 0,  
      "Name": "Fan rear 7",  
      "Reading": 8592,  
      "ReadingUnits": "RPM",  
      "Status": {  
        "Health": "OK",  
        "State": "Enabled"  
      }  
    }  
  },  
  {  
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/28",  
    "@odata.type": "#Thermal.v1_3_0.Fan",  
    "LowerThresholdCritical": 1750,  
    "LowerThresholdNonCritical": 2000,  
    "MaxReadingRange": 25000,  
    "MemberId": "28",  
    "MinReadingRange": 0,  
    "Name": "Fan rear 8",  
    "Reading": 8413,  
    "ReadingUnits": "RPM",  
    "Status": {  
      "Health": "OK",  
      "State": "Enabled"  
    }  
  },  
  {  
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/29",  
    "@odata.type": "#Thermal.v1_3_0.Fan",  
    "LowerThresholdCritical": 1750,  
    "LowerThresholdNonCritical": 2000,  
    "MaxReadingRange": 25000,  
    "MemberId": "29",  
    "MinReadingRange": 0,  
    "Name": "Fan rear 9",  
    "Reading": 8234,  
    "ReadingUnits": "RPM",  
    "Status": {  
      "Health": "OK",  
      "State": "Enabled"  
    }  
  },  
  {  
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/30",  
    "@odata.type": "#Thermal.v1_3_0.Fan",  
    "MaxReadingRange": 30000,  
    "MemberId": "30",  
    "MinReadingRange": 0,  
    "Name": "PSU1 54VSB Fan Speed 1",  
    "Reading": 8992,  
    "ReadingUnits": "RPM",  
  }  
}
```

```
"Status": {
  "Health": "OK",
  "State": "Enabled"
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/31",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 30000,
  "MemberId": "31",
  "MinReadingRange": 0,
  "Name": "PSU2 54VSB Fan Speed 1",
  "Reading": 8992,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/32",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 30000,
  "MemberId": "32",
  "MinReadingRange": 0,
  "Name": "PSU3 54VSB Fan Speed 1",
  "Reading": 9008,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/33",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 30000,
  "MemberId": "33",
  "MinReadingRange": 0,
  "Name": "PSU7 54VSB Fan Speed 1",
  "Reading": 10048,
  "ReadingUnits": "RPM",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/34",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 30000,
  "MemberId": "34",
  "MinReadingRange": 0,
  "Name": "PSU8 54VSB Fan Speed 1",
  "Reading": 0,
  "ReadingUnits": "RPM",
  "Status": {
```

```
"Health": "OK",
"State": "Enabled"

}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/35",
"@odata.type": "#Thermal.v1_3_0.Fan",
"MaxReadingRange": 100,
"MemberId": "35",
"MinReadingRange": 0,
"Name": "Pwm 1",
"Reading": 19,
"ReadingUnits": "Percent",
"Status": {
"Health": "OK",
"State": "Enabled"
}
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/36",
"@odata.type": "#Thermal.v1_3_0.Fan",
"MaxReadingRange": 100,
"MemberId": "36",
"MinReadingRange": 0,
"Name": "Pwm 10",
"Reading": 19,
"ReadingUnits": "Percent",
"Status": {
"Health": "OK",
"State": "Enabled"
}
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/37",
"@odata.type": "#Thermal.v1_3_0.Fan",
"MaxReadingRange": 100,
"MemberId": "37",
"MinReadingRange": 0,
"Name": "Pwm 11",
"Reading": 19,
"ReadingUnits": "Percent",
"Status": {
"Health": "OK",
"State": "Enabled"
}
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/38",
"@odata.type": "#Thermal.v1_3_0.Fan",
"MaxReadingRange": 100,
"MemberId": "38",
"MinReadingRange": 0,
"Name": "Pwm 12",
"Reading": 19,
"ReadingUnits": "Percent",
"Status": {
"Health": "OK",
```

```
"State": "Enabled"

}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/39",
"@odata.type": "#Thermal.v1_3_0.Fan",
"MaxReadingRange": 100,
"MemberId": "39",
"MinReadingRange": 0,
"Name": "Pwm 13",
"Reading": 19,
"ReadingUnits": "Percent",
"Status": {
"Health": "OK",
"State": "Enabled"
}
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/40",
"@odata.type": "#Thermal.v1_3_0.Fan",
"MaxReadingRange": 100,
"MemberId": "40",
"MinReadingRange": 0,
"Name": "Pwm 14",
"Reading": 19,
"ReadingUnits": "Percent",
"Status": {
"Health": "OK",
"State": "Enabled"
}
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/41",
"@odata.type": "#Thermal.v1_3_0.Fan",
"MaxReadingRange": 100,
"MemberId": "41",
"MinReadingRange": 0,
"Name": "Pwm 15",
"Reading": 19,
"ReadingUnits": "Percent",
"Status": {
"Health": "OK",
"State": "Enabled"
}
}

},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/42",
"@odata.type": "#Thermal.v1_3_0.Fan",
"MaxReadingRange": 100,
"MemberId": "42",
"MinReadingRange": 0,
"Name": "Pwm 2",
"Reading": 19,
"ReadingUnits": "Percent",
"Status": {
"Health": "OK",
"State": "Enabled"
}
```

```
    }

    },
    {
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/43",
      "@odata.type": "#Thermal.v1_3_0.Fan",
      "MaxReadingRange": 100,
      "MemberId": "43",
      "MinReadingRange": 0,
      "Name": "Pwm 3",
      "Reading": 19,
      "ReadingUnits": "Percent",
      "Status": {
        "Health": "OK",
        "State": "Enabled"
      }
    }

  },
  {
    "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/44",
    "@odata.type": "#Thermal.v1_3_0.Fan",
    "MaxReadingRange": 100,
    "MemberId": "44",
    "MinReadingRange": 0,
    "Name": "Pwm 4",
    "Reading": 19,
    "ReadingUnits": "Percent",
    "Status": {
      "Health": "OK",
      "State": "Enabled"
    }
  }

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/45",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 100,
  "MemberId": "45",
  "MinReadingRange": 0,
  "Name": "Pwm 5",
  "Reading": 19,
  "ReadingUnits": "Percent",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/46",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 100,
  "MemberId": "46",
  "MinReadingRange": 0,
  "Name": "Pwm 6",
  "Reading": 19,
  "ReadingUnits": "Percent",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}
```

```
}

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/47",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 100,
  "MemberId": "47",
  "MinReadingRange": 0,
  "Name": "Pwm 7",
  "Reading": 19,
  "ReadingUnits": "Percent",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/48",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 100,
  "MemberId": "48",
  "MinReadingRange": 0,
  "Name": "Pwm 8",
  "Reading": 19,
  "ReadingUnits": "Percent",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/49",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 100,
  "MemberId": "49",
  "MinReadingRange": 0,
  "Name": "Pwm 9",
  "Reading": 19,
  "ReadingUnits": "Percent",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/50",
  "@odata.type": "#Thermal.v1_3_0.Fan",
  "MaxReadingRange": 100,
  "MemberId": "50",
  "MinReadingRange": 0,
  "Name": "Pwm PSU1 54VSB Fan 1",
  "Reading": 30,
  "ReadingUnits": "Percent",
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  }
}
```

```
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/51",  
      "@odata.type": "#Thermal.v1_3_0.Fan",  
      "MaxReadingRange": 100,  
      "MemberId": "51",  
      "MinReadingRange": 0,  
      "Name": "Pwm PSU2 54VSB Fan 1",  
      "Reading": 30,  
      "ReadingUnits": "Percent",  
      "Status": {  
        "Health": "OK",  
        "State": "Enabled"  
      }  
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/52",  
      "@odata.type": "#Thermal.v1_3_0.Fan",  
      "MaxReadingRange": 100,  
      "MemberId": "52",  
      "MinReadingRange": 0,  
      "Name": "Pwm PSU3 54VSB Fan 1",  
      "Reading": 30,  
      "ReadingUnits": "Percent",  
      "Status": {  
        "Health": "OK",  
        "State": "Enabled"  
      }  
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/53",  
      "@odata.type": "#Thermal.v1_3_0.Fan",  
      "MaxReadingRange": 100,  
      "MemberId": "53",  
      "MinReadingRange": 0,  
      "Name": "Pwm PSU7 54VSB Fan 1",  
      "Reading": 16,  
      "ReadingUnits": "Percent",  
      "Status": {  
        "Health": "OK",  
        "State": "Enabled"  
      }  
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Fans/54",  
      "@odata.type": "#Thermal.v1_3_0.Fan",  
      "MaxReadingRange": 100,  
      "MemberId": "54",  
      "MinReadingRange": 0,  
      "Name": "Pwm PSU8 54VSB Fan 1",  
      "Reading": 16,  
      "ReadingUnits": "Percent",  
      "Status": {  
        "Health": "OK",  
        "State": "Enabled"  
      }  
    }  
  ]  
}
```

```
}
],
"Id": "Thermal",
"Name": "Thermal",
"Redundancy": [],
"Temperatures": [
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/0",
"@odata.type": "#Thermal.v1_3_0.Temperature",
"LowerThresholdCritical": 5.0,
"LowerThresholdNonCritical": 10.0,
"MaxReadingRangeTemp": 127.0,
"MemberId": "0",
"MinReadingRangeTemp": -128.0,
"Name": "CPU0 FIVRA Temp",
"ReadingCelsius": 37.0,
"Status": {
"Health": "OK",
"State": "Enabled"
},
"UpperThresholdCritical": 70.0,
"UpperThresholdNonCritical": 60.0
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/1",
"@odata.type": "#Thermal.v1_3_0.Temperature",
"LowerThresholdCritical": 5.0,
"LowerThresholdNonCritical": 10.0,
"MaxReadingRangeTemp": 127.0,
"MemberId": "1",
"MinReadingRangeTemp": -128.0,
"Name": "CPU0 PVCCD Temp",
"ReadingCelsius": 40.0,
"Status": {
"Health": "OK",
"State": "Enabled"
},
"UpperThresholdCritical": 70.0,
"UpperThresholdNonCritical": 60.0
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/2",
"@odata.type": "#Thermal.v1_3_0.Temperature",
"LowerThresholdCritical": 5.0,
"LowerThresholdNonCritical": 10.0,
"MaxReadingRangeTemp": 127.0,
"MemberId": "2",
"MinReadingRangeTemp": -128.0,
"Name": "CPU0 PVCCIN Temp",
"ReadingCelsius": 42.0,
"Status": {
"Health": "OK",
"State": "Enabled"
},
"UpperThresholdCritical": 70.0,
"UpperThresholdNonCritical": 60.0
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/3",
```

```
"@odata.type": "#Thermal.v1_3_0.Temperature",
"LowerThresholdCritical": 5.0,
"LowerThresholdNonCritical": 10.0,
"MaxReadingRangeTemp": 127.0,
"MemberId": "3",
"MinReadingRangeTemp": -128.0,
"Name": "CPU1 FIVRA Temp",
"ReadingCelsius": 33.0,
"Status": {
  "Health": "OK",
  "State": "Enabled"
},
"UpperThresholdCritical": 70.0,
"UpperThresholdNonCritical": 60.0

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/4",
  "@odata.type": "#Thermal.v1_3_0.Temperature",
  "LowerThresholdCritical": 5.0,
  "LowerThresholdNonCritical": 10.0,
  "MaxReadingRangeTemp": 127.0,
  "MemberId": "4",
  "MinReadingRangeTemp": -128.0,
  "Name": "CPU1 PVCCD Temp",
  "ReadingCelsius": 36.0,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 70.0,
  "UpperThresholdNonCritical": 60.0

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/5",
  "@odata.type": "#Thermal.v1_3_0.Temperature",
  "LowerThresholdCritical": 5.0,
  "LowerThresholdNonCritical": 10.0,
  "MaxReadingRangeTemp": 127.0,
  "MemberId": "5",
  "MinReadingRangeTemp": -128.0,
  "Name": "CPU1 PVCCIN Temp",
  "ReadingCelsius": 31.0,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 70.0,
  "UpperThresholdNonCritical": 60.0

},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/6",
  "@odata.type": "#Thermal.v1_3_0.Temperature",
  "LowerThresholdCritical": 5.0,
  "LowerThresholdNonCritical": 10.0,
  "MaxReadingRangeTemp": 127.0,
  "MemberId": "6",
  "MinReadingRangeTemp": -128.0,
  "Name": "FAON CPU0 Temp",
  "ReadingCelsius": 41.0,
```

```
"Status": {
  "Health": "OK",
  "State": "Enabled"
},
"UpperThresholdCritical": 70.0,
"UpperThresholdNonCritical": 60.0
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/7",
  "@odata.type": "#Thermal.v1_3_0.Temperature",
  "LowerThresholdCritical": 5.0,
  "LowerThresholdNonCritical": 10.0,
  "MaxReadingRangeTemp": 127.0,
  "MemberId": "7",
  "MinReadingRangeTemp": -128.0,
  "Name": "FAON CPU1 Temp",
  "ReadingCelsius": 41.0,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 70.0,
  "UpperThresholdNonCritical": 60.0
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/8",
  "@odata.type": "#Thermal.v1_3_0.Temperature",
  "LowerThresholdCritical": 0.0,
  "LowerThresholdNonCritical": 5.0,
  "MaxReadingRangeTemp": 127.0,
  "MemberId": "8",
  "MinReadingRangeTemp": -128.0,
  "Name": "LM75BD MB",
  "ReadingCelsius": 31.25,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 115.0,
  "UpperThresholdNonCritical": 110.0
},
{
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/9",
  "@odata.type": "#Thermal.v1_3_0.Temperature",
  "LowerThresholdCritical": 5.0,
  "LowerThresholdNonCritical": 10.0,
  "MaxReadingRangeTemp": 127.0,
  "MemberId": "9",
  "MinReadingRangeTemp": -128.0,
  "Name": "PSU1 54VSB Temp",
  "ReadingCelsius": 30.812,
  "Status": {
    "Health": "OK",
    "State": "Enabled"
  },
  "UpperThresholdCritical": 70.0,
  "UpperThresholdNonCritical": 60.0
}
```

```
    },
    {
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/10",
      "@odata.type": "#Thermal.v1_3_0.Temperature",
      "LowerThresholdCritical": 5.0,
      "LowerThresholdNonCritical": 10.0,
      "MaxReadingRangeTemp": 127.0,
      "MemberId": "10",
      "MinReadingRangeTemp": -128.0,
      "Name": "PSU2 54VSB Temp",
      "ReadingCelsius": 30.812,
      "Status": {
        "Health": "OK",
        "State": "Enabled"
      }
    },
    {
      "UpperThresholdCritical": 70.0,
      "UpperThresholdNonCritical": 60.0
    },
    {
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/11",
      "@odata.type": "#Thermal.v1_3_0.Temperature",
      "LowerThresholdCritical": 5.0,
      "LowerThresholdNonCritical": 10.0,
      "MaxReadingRangeTemp": 127.0,
      "MemberId": "11",
      "MinReadingRangeTemp": -128.0,
      "Name": "PSU3 54VSB Temp",
      "ReadingCelsius": 30.812,
      "Status": {
        "Health": "OK",
        "State": "Enabled"
      }
    },
    {
      "UpperThresholdCritical": 70.0,
      "UpperThresholdNonCritical": 60.0
    },
    {
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/12",
      "@odata.type": "#Thermal.v1_3_0.Temperature",
      "LowerThresholdCritical": 5.0,
      "LowerThresholdNonCritical": 10.0,
      "MaxReadingRangeTemp": 127.0,
      "MemberId": "12",
      "MinReadingRangeTemp": -128.0,
      "Name": "PSU7 54VSB Temp",
      "ReadingCelsius": 26.0,
      "Status": {
        "Health": "OK",
        "State": "Enabled"
      }
    },
    {
      "UpperThresholdCritical": 70.0,
      "UpperThresholdNonCritical": 60.0
    },
    {
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Thermal#/Temperatures/13",
      "@odata.type": "#Thermal.v1_3_0.Temperature",
      "LowerThresholdCritical": 5.0,
      "LowerThresholdNonCritical": 10.0,
      "MaxReadingRangeTemp": 127.0,
      "MemberId": "13",
```

```
"MinReadingRangeTemp": -128.0,  
"Name": "PSU8 54VSB Temp",  
"ReadingCelsius": 27.5,  
"Status": {  
  "Health": "OK",  
  "State": "Enabled"  
},  
"UpperThresholdCritical": 70.0,  
"UpperThresholdNonCritical": 60.0  
}  
]  
}
```

**redfish/v1/Chassis/
Baseboard/Sensors** Gets the properties of the sensors resource.

URL

`/redfish/v1/Chassis/Baseboard/Sensors`

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET  
https://$bmc_ip/redfish/v1/Chassis/Baseboard/Sensors
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors",  
  "@odata.type": "#SensorCollection.SensorCollection",  
  "Description": "Collection of Sensors for this Chassis",  
  "Members": [  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_CPU0_FIVRA_Iout"  
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_CPU0_PVCCD_Iin"  
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_CPU0_PVCCIN_Iout"  
    },  
    {  
      "@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_CPU1_FIVRA_Iout"  
    },  
  ],  
}
```

```
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_CPU1_PVCCD_Iin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_CPU1_PVCCIN_Iout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_FAON_CPU0_Iout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_FAON_CPU1_Iout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU1_54VSB_Iin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU1_54VSB_Iout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU2_54VSB_Iin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU2_54VSB_Iout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU3_54VSB_Iin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU3_54VSB_Iout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU7_54VSB_Iin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU7_54VSB_Iout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU8_54VSB_Iin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/current_PSU8_54VSB_Iout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_CPU0_FIVRA_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_CPU0_PVCCD_Pin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_CPU0_PVCCIN_Pout"
```

```
,
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_CPU1_FIVRA_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_CPU1_PVCCD_Pin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_CPU1_PVCCIN_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_FAON_CPU0_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_FAON_CPU1_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU1_54VSB_Pin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU1_54VSB_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU2_54VSB_Pin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU2_54VSB_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU3_54VSB_Pin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU3_54VSB_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU7_54VSB_Pin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU7_54VSB_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU8_54VSB_Pin"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU8_54VSB_Pout"
},
{
"@odata.id": "/redfish/v1/Chassis/Baseboard/Sensors/power_PSU_Power_Total"
```

```
}  
],  
"Members@odata.count": 37,  
"Name": "Sensors"  
  
}
```

Platform Management

The commands listed in this section include power control, session service, x86 system information, and boot setting related functions.

**redfish/v1/
Managers/bmc/
ResetActionInfo** **URL**

/redfish/v1/Managers/bmc/ResetActionInfo

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/  
Managers/bmc/ResetActionInfo
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/Managers/bmc/ResetActionInfo",  
  "@odata.type": "#ActionInfo.v1_1_2.ActionInfo",  
  "Id": "ResetActionInfo",  
  "Name": "Reset Action Info",  
  "Parameters": [  
    {  
      "AllowableValues": [  
        "GracefulRestart",  
        "ForceRestart"  
      ],  
      "DataType": "String",  
      "Name": "ResetType",  
      "Required": true  
    }  
  ]  
}
```

redfish/v1/Managers/bmc/Actions/Manager.Reset Resets the BMC based on the reset type.

URL

/redfish/v1/Managers/bmc/Actions/Manager.Reset

Method

GET

Parameters

"ResetType"

- GracefulRestart
- ForceRestart

Request Example

```
curl -k -H "X-Auth-Token: $token" -X POST https://{bmc_ip}/redfish/v1/Managers/bmc/Actions/Manager.Reset -d '{"ResetType": "GracefulRestart"}'
```

Response Example

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "The request completed successfully.",
      "MessageArgs": [],
      "MessageId": "Base.1.16.0.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}
```

redfish/v1/SessionService/ Gets the properties of the sessions resource.

URL

/redfish/v1/SessionService/

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/SessionService/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/SessionService/",
  "@odata.type": "#SessionService.v1_0_2.SessionService",
  "Description::": "Session Service",
  "Id": "SessionService",
  "Name": "Session Service",
  "ServiceEnabled": true,
  "SessionTimeout": 1800,
  "Sessions": {
    "@odata.id": "/redfish/v1/SessionService/Sessions"
  }
}
```

Method

PATCH

Parameters

SessionTimeout

Request Example

Set the session timeout time.

```
curl -k -H "Content-Type: application/json" -H "X-Auth-Token: $token" -X
PATCH https://${bmc_ip}/redfish/v1/SessionService/ -d '{"SessionTimeout":
2000}'
```

Response Example

```
{
  "SessionTimeOut@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "The property SessionTimeOut was assigned the value 2000 due
to modification by the service.",
      "MessageArgs": [
        "SessionTimeOut",
        "2000"
      ],
      "MessageId": "Base.1.8.1.PropertyValueModified",
      "MessageSeverity": "Warning",
      "Resolution": "No resolution is required."
    }
  ]
}
ubuntu@ags8200:~$ curl -k -H X-Auth-Token: $token" -k -H "Content-Type:
application/json" -X GET https://${bmc_ip}/redfish/v1/SessionService
{
  "@odata.id": "/redfish/v1/SessionService/",
  "@odata.type": "#SessionService.v1_0_2.SessionService",
  "Description": "Session Service",
```

```

    "Id": "SessionService",
    "Name": "Session Service",
    "ServiceEnabled": true,
    "SessionTimeout": 2000,
    "Sessions": {
      "@odata.id": "/redfish/v1/SessionService/Sessions"
    }
  }
}

```

redfish/v1/SessionService/Sessions/ Reads the sessions information.
URL

/redfish/v1/SessionService/Sessions/

Method
GET

Request Example

```

curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/SessionService/Sessions

```

Response Example

```

{
  "@odata.id": "/redfish/v1/SessionService/Sessions/",
  "@odata.type": "#SessionCollection.SessionCollection",
  "Description": "Session Collection",
  "Members": [
    {
      "@odata.id": "/redfish/v1/SessionService/Sessions/xiCleu3lBo"
    },
  ],
  "Members@odata.count": 1,
  "Name": "Session Collection"
}
URL: /redfish/v1/SessionService/Sessions/
Description: Create a new session for specific user.
Method: POST
Parameter: N/A
Request Example: curl -k -H "Content-Type: application/json" -H "X-Auth-Token: $token" -X POST https://${bmc}/redfish/v1/SessionService/Sessions/ -d '{"UserName": "root", "Password": "0penBmc"}'
Response Example:
{
  "@odata.id": "/redfish/v1/SessionService/Sessions/Xexjqd3lu",
  "@odata.type": "#Session.v1_5_0.Session",
  "ClientOriginIPAddress": "10.102.8.101",
  "Description": "Manager User Session",
  "Id": "Xexjqd3lu",
  "Name": "User Session",
  "UserName": "root"
}

```

```
}
```

**redfish/v1/SessionService/
Sessions/<str>** Deletes a session by session ID.
URL

/redfish/v1/SessionService/Sessions/<str>

Method
DELETE

Parameters
Session ID

Request Example

```
curl -k -H "X-Auth-Token: $token" -X DELETE https://{bmc_ip} /redfish/v1/  
SessionService/Sessions/MYXxduyvGe
```

Response Example

```
{  
  "@Message.ExtendedInfo": [  
    {  
      "@odata.type": "#Message.v1_1_1.Message",  
      "Message": "Successfully Completed Request",  
      "MessageArgs": [],  
      "MessageId": "Base.1.8.1.Success",  
      "MessageSeverity": "OK",  
      "Resolution": "None"  
    }  
  ]  
}
```

redfish/v1/Systems Gets system information.

URL

/redfish/v1/Systems

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/Systems
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Systems",
  "@odata.type": "#ComputerSystemCollection.ComputerSystemCollection",
  "Members": [
    {
      "@odata.id": "/redfish/v1/Systems/system"
    }
  ],
  "Members@odata.count": 1,
  "Name": "Computer System Collection"
}
```

**redfish/v1/Systems/
system** Gets the properties of systems resource.

URL

/redfish/v1/Systems/system

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/  
Systems/system/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Systems",
  "@odata.type": "#ComputerSystemCollection.ComputerSystemCollection",
  "Members": [
    {
      "@odata.id": "/redfish/v1/Systems/system"
    }
  ],
  "Members@odata.count": 1,
  "Name": "Computer System Collection"
}
~/openbmc$ curl -k -H "X-Auth-Token: $token" -X GET https://{bmc}/redfish/  
v1/Systems/system/
{
  "@odata.id": "/redfish/v1/Systems/system",
```

```
"@odata.type": "#ComputerSystem.v1_16_0.ComputerSystem",
"Actions": {
  "#ComputerSystem.Reset": {
    "@Redfish.ActionInfo": "/redfish/v1/Systems/system/ResetActionInfo",
    "target": "/redfish/v1/Systems/system/Actions/ComputerSystem.Reset"
  }
},
"AssetTag": "N/A",
"Bios": {
  "@odata.id": "/redfish/v1/Systems/system/Bios"
},
"Boot": {
  "AutomaticRetryConfig": "RetryAttempts",
  "AutomaticRetryConfig@Redfish.AllowableValues": [
    "Disabled",
    "RetryAttempts"
  ],
  "BootSourceOverrideEnabled": "Disabled",
  "BootSourceOverrideMode": "UEFI",
  "BootSourceOverrideMode@Redfish.AllowableValues": [
    "Legacy",
    "UEFI"
  ],
  "BootSourceOverrideTarget": "None",
  "BootSourceOverrideTarget@Redfish.AllowableValues": [
    "None",
    "Pxe",
    "Hdd",
    "Cd",
    "Diags",
    "BiosSetup",
    "Usb"
  ],
  "StopBootOnFault": "Never",
  "TrustedModuleRequiredToBoot": "Disabled"
},
>Description": "Computer System",
"FabricAdapters": {
  "@odata.id": "/redfish/v1/Systems/system/FabricAdapters"
},
"GraphicalConsole": {
  "ConnectTypesSupported": [
    "KVMIP"
  ],
  "MaxConcurrentSessions": 4,
  "ServiceEnabled": true
},
"HostWatchdogTimer": {
  "FunctionEnabled": false,
  "Status": {
    "State": "Enabled"
  },
  "TimeoutAction": "ResetSystem"
},
"Id": "system",
"IndicatorLED": "Off",
>LastResetTime": "2024-06-27T07:19:55+00:00",
"Links": {
  "Chassis": [
    {
      "@odata.id": "/redfish/v1/Chassis/HSBP_1_F1"
    }
  ],
  "ManagedBy": [
    {
```

```
        "@odata.id": "/redfish/v1/Managers/bmc"
    }
}
},
"LocationIndicatorActive": false,
"LogServices": {
    "@odata.id": "/redfish/v1/Systems/system/LogServices"
},
"Manufacturer": "Accton",
"Memory": {
    "@odata.id": "/redfish/v1/Systems/system/Memory"
},
"MemorySummary": {
    "TotalSystemMemoryGiB": 0.0
},
"Model": "Main Board",
"Name": "system",
"PCIDevices": [],
"PCIDevices@odata.count": 0,
"PartNumber": "N0OMX2280001H",
"PowerRestorePolicy": "AlwaysOn",
"PowerState": "On",
"ProcessorSummary": {
    "Count": 0
},
"Processors": {
    "@odata.id": "/redfish/v1/Systems/system/Processors"
},
"Product_Manufacturer": "Accton",
"Product_Model": "RS2280",
"Product_PartNumber": "F0OMX2280012H",
"Product_SerialNumber": "RS2280S31233100003",
"SerialConsole": {
    "IPMI": {
        "ServiceEnabled": true
    },
    "MaxConcurrentSessions": 15,
    "SSH": {
        "HotKeySequenceDisplay": "Press ~. to exit console",
        "Port": 2200,
        "ServiceEnabled": true
    }
},
"SerialNumber": "AN330000798",
"Status": {
    "Health": "OK",
    "HealthRollup": "OK",
    "State": "Enabled"
},
"Storage": {
    "@odata.id": "/redfish/v1/Systems/system/Storage"
},
"SystemType": "Physical"
}
```

Method

PATCH

Parameters

```
{
```

```
"IndicatorLED": "Blinking",
"LocationIndicatorActive": true,
"Boot": {
  "BootSourceOverrideEnabled": "Disabled",
  "BootSourceOverrideTarget": "None",
  "AutomaticRetryConfig": "Disabled",
  "TrustedModuleRequiredToBoot": false
}
```

Request Example

Change BIOS parameters.

```
curl -k -H "Content-Type: application/json" -H "X-Auth-Token: $token" -X
  PATCH https://{bmc}/redfish/v1/Systems/system/ -d @system
```

redfish/v1/Systems/system/ Gets the information of the reset action resource for the system.

ResetActionInfo URL

/redfish/v1/Systems/system/ResetActionInfo

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET
https://{bmc_ip}/redfish/v1/Systems/system/ResetActionInfo/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Systems/system/ResetActionInfo",
  "@odata.type": "#ActionInfo.v1_1_2.ActionInfo",
  "Id": "ResetActionInfo",
  "Name": "Reset Action Info",
  "Parameters": [
    {
      "AllowableValues": [
        "On",
        "ForceOff",
        "ForceOn",
        "ForceRestart",
        "GracefulRestart",
        "GracefulShutdown",
        "PowerCycle",
        "Nmi"
      ]
    }
  ]
}
```

```

    ],
    "DataType": "String",
    "Name": "ResetType",
    "Required": true
  }
]
}

```

**redfish/v1/Systems/
system/Actions/
ComputerSystem.Reset** Resets the system based on the reset type.
URL
`/redfish/v1/Systems/system/Actions/ComputerSystem.Reset`

Method
GET

Parameters
"ResetType"

- On
- ForceOff
- ForceOn
- ForceRestart
- GracefulRestart
- GracefulShutdown
- PowerCycle

Request Example

```

curl -k -H "X-Auth-Token: $token" -X POST https://${bmc}/redfish/v1/Systems/  
system/Actions/ComputerSystem.Reset -d '{"ResetType": "ForceRestart"}'

```

Response Example

```

{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "The request completed successfully.",
      "MessageArgs": [],
      "MessageId": "Base.1.16.0.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}

```

Platform Troubleshooting

The commands listed in this section include SEL logs and post-code related functions.

**redfish/v1/Systems/
system/LogServices**

Displays the log type.

URL

/redfish/v1/Systems/system/LogServices

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/  
Systems/system/LogServices
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/Systems/system/LogServices",  
  "@odata.type": "#LogServiceCollection.LogServiceCollection",  
  "Description": "Collection of LogServices for this Computer System",  
  "Members": [  
    {  
      "@odata.id": "/redfish/v1/Systems/system/LogServices/EventLog"  
    },  
    {  
      "@odata.id": "/redfish/v1/Systems/system/LogServices/HostLogger"  
    },  
    {  
      "@odata.id": "/redfish/v1/Systems/system/LogServices/PostCodes"  
    }  
  ],  
  "Members@odata.count": 3,  
  "Name": "System Log Services Collection"  
}
```

**redfish/v1/Systems/
system/LogServices/
EventLog** Displays the event log type.
URL

/redfish/v1/Systems/system/LogServices/EventLog

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/  
Systems/system/LogServices
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/Systems/system/LogServices/EventLog",  
  "@odata.type": "#LogService.v1_1_0.LogService",  
  "Actions": {  
    "#LogService.ClearLog": {  
      "target": "/redfish/v1/Systems/system/LogServices/EventLog/Actions/  
LogService.ClearLog"  
    }  
  },  
  "DateTime": "2023-12-28T00:18:36+08:00",  
  "DateTimeLocalOffset": "+08:00",  
  "Description::": "System Event Log Service",  
  "Entries": {  
    "@odata.id": "/redfish/v1/Systems/system/LogServices/EventLog/Entries"  
  },  
  "Id": "EventLog",  
  "Name": "Event Log Service",  
  "OverWritePolicy": "WrapsWhenFull"  
}
```

**redfish/v1/Systems/
system/LogServices/
EventLog/Entries** Gets the properties of the SEL entries resource.
URL

/redfish/v1/Systems/system/LogServices/EventLog/Entries

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/  
Systems/system/LogServices/EventLog/Entries/
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/Systems/system/LogServices/EventLog/Entries",  
  "@odata.type": "#LogEntryCollection.LogEntryCollection",  
  "Description::": "Collection of System Event Log Entries",  
  "Members": [  
    {  
      "@odata.id": "/redfish/v1/Systems/system/LogServices/EventLog/Entries/  
1704791824",  
      "@odata.type": "#LogEntry.v1_8_0.LogEntry",  
      "Created": "2024-01-09T17:17:04",  
      "EntryType": "Event",  
      "Id": "1704791824",  
      "Message": "  1 | 01/09/24 | 17:17:04 CST | Voltage PSU1_VIN | Lower  
Non-critical going low | Asserted | Reading 0 < Threshold 90 Volts\n",  
      "MessageArgs": [  
        "0x2",  
        "50002d",  
        "0x20",  
        "1",  
        "1",  
        "2",  
        "0x1e"  
      ],  
      "MessageId": "1",  
      "Name": "System Event Log Entry",  
      "Severity": ""  
    },  
    {  
      "@odata.id": "/redfish/v1/Systems/system/LogServices/EventLog/Entries/  
1704791824_1",  
      "@odata.type": "#LogEntry.v1_8_0.LogEntry",  
      "Created": "2024-01-09T17:17:04",  
      "EntryType": "Event",  
      "Id": "1704791824_1",  
      "Message": "  2 | 01/09/24 | 17:17:04 CST | Voltage PSU1_VIN | Lower  
Non-critical going low | Asserted | Reading 0 < Threshold 90 Volts\n",  
      "MessageArgs": [  
        "0x2",  
        "50002d",  
        "0x20",  
        "1",  
        "1",  
        "2",  
        "0x1e\r"  
      ],  
      "MessageId": "2",  
      "Name": "System Event Log Entry",  
      "Severity": ""  
    }  
  ],  
  "Members@odata.count": 2,  
  "Name": "System Event Log Entries"
```

```
}
```

**redfish/v1/Systems/
system/LogServices/
EventLog/Entries/** Gets the properties of one SEL entry resource.

URL
<str>

/redfish/v1/Systems/system/LogServices/EventLog/Entries/<str>

Method

GET

Parameters

log_id

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/  
Systems/system/LogServices/EventLog/Entries/1704804020_1
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/Systems/system/LogServices/EventLog/Entries/  
1704804020_1",  
  "@odata.type": "#LogEntry.v1_8_0.LogEntry",  
  "Created": "2024-01-09T20:40:20",  
  "EntryType": "Event",  
  "Id": "1704804020_1",  
  "Message": " c | 01/09/24 | 20:40:20 CST | Voltage PSU1_VOUT | Lower Non-  
critical going low | Asserted | Reading 0 < Threshold 108 Volts",  
  "MessageArgs": [  
    "0x2",  
    "50006c",  
    "0x20",  
    "1",  
    "1",  
    "2",  
    "0x1f\r"  
  ],  
  "MessageId": "12",  
  "Name": "System Event Log Entry",  
  "Severity": ""  
}
```

**redfish/v1/Systems/
system/LogServices/
EventLog/Actions/
LogService.ClearLog** Executes a SEL clear action.

URL

**/redfish/v1/Systems/system/LogServices/EventLog/Actions/
LogService.ClearLog**

Method

POST

Request Example

```
curl -k -H "X-Auth-Token: $token" -X POST https://{bmc_ip}/redfish/v1/  
Systems/system/LogServices/ /EventLog/Actions/LogService.ClearLog/
```

Response Example

```
{  
  "@Message.ExtendedInfo": [  
    {  
      "@odata.type": "#Message.v1_1_1.Message",  
      "Message": "Successfully Completed Request",  
      "MessageArgs": [],  
      "MessageId": "Base.1.8.1.Success",  
      "MessageSeverity": "OK",  
      "Resolution": "None"  
    }  
  ]  
}
```

**redfish/v1/Systems/
system/LogServices/
PostCodes/Actions/
LogService.ClearLog** Executes a PostCode log clear action.

URL

**/redfish/v1/Systems/system/LogServices/PostCodes/Actions/
LogService.ClearLog**

Method

POST

Request Example

```
curl -k -H "X-Auth-Token: $token" -X POST https://{bmc_ip}/redfish/v1/  
Systems/system/LogServices/PostCodes/Actions/LogService.ClearLog
```

Response Example

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "The request completed successfully.",
      "MessageArgs": [],
      "MessageId": "Base.1.16.0.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}
```

**redfish/v1/Systems/
system/LogServices/
PostCodes/Entries** Gets a collection of POST Code log entries.
URL

/redfish/v1/Systems/system/LogServices/PostCodes/Entries

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X POST https://{bmc_ip}/redfish/v1/  
Systems/system/LogServices/PostCodes/Entries
```

Response Example

```
francis@ai-build: ~ francis@ai-build:~$ curl -k -H "Content-Type:  
application/json" -H "X-Auth-Token: $token" -X GET https://{bmc}/redfish/  
v1/Systems/system/LogServices/PostCodes/Entries
{
  "@odata.id": "/redfish/v1/Systems/system/LogServices/PostCodes/Entries",
  "@odata.type": "#LogEntryCollection.LogEntryCollection",
  "Description": "Collection of POST Code Log Entries",
  "Members": [
    {
      "@odata.id": "/redfish/v1/Systems/system/LogServices/PostCodes/Entries/  
B1-1",
      "@odata.type": "#LogEntry.v1_9_0.LogEntry",
      "Created": "2024-07-01T06:51:18.118489+00:00",
      "EntryType": "Event",
      "Id": "B1-1",
      "Message": "Boot Count: 1; Time Stamp Offset: 0.0000 seconds; POST Code:  
0x7f",
      "MessageArgs": [
        "1",
        "0.0000",
        "0x7f"
      ],
    }
  ],
}
```

```
        "MessageId": "OpenBMC.0.2.BIOSPOSTCode",
        "Name": "POST Code Log Entry",
        "Severity": "OK"
    },
    {
        "@odata.id": "/redfish/v1/Systems/system/LogServices/PostCodes/Entries/
B1-2",
        "@odata.type": "#LogEntry.v1_9_0.LogEntry",
        "Created": "2024-07-01T06:51:18.170153+00:00",
        "EntryType": "Event",
        "Id": "B1-2",
        "Message": "Boot Count: 1; Time Stamp Offset: 0.0517 seconds; POST Code:
0x48",
        "MessageArgs": [
            "1",
            "0.0517",
            "0x48"
        ],
        "MessageId": "OpenBMC.0.2.BIOSPOSTCode",
        "Name": "POST Code Log Entry",
        "Severity": "OK"
    },
    ... (ignore)
    ... (ignore)
    ... (ignore)
    {
        "@odata.id": "/redfish/v1/Systems/system/LogServices/PostCodes/Entries/
B2-488",
        "@odata.type": "#LogEntry.v1_9_0.LogEntry",
        "Created": "2024-07-01T03:41:08.830870+00:00",
        "EntryType": "Event",
        "Id": "B2-488",
        "Message": "Boot Count: 2; Time Stamp Offset: 46.8544 seconds; POST
Code: 0x92",
        "MessageArgs": [
            "2",
            "46.8544",
            "0x92"
        ],
        "MessageId": "OpenBMC.0.2.BIOSPOSTCode",
        "Name": "POST Code Log Entry",
        "Severity": "OK"
    }
],
"Members@odata.count": 3592,
"Members@odata.nextLink": "/redfish/v1/Systems/system/LogServices/
PostCodes/Entries?$skip=1000",
"Name": "BIOS POST Code Log Entries"
}
francis@ai-build:~$
```

Security Service

The commands listed in this section include user management, permission, and certification functions.

**redfish/v1/
AccountService** Gets the properties of the account resource.

URL

/redfish/v1/AccountService

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/  
AccountService
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/AccountService",  
  "@odata.type": "#AccountService.v1_10_0.AccountService",  
  "AccountLockoutDuration": 0,  
  "AccountLockoutThreshold": 0,  
  "Accounts": {  
    "@odata.id": "/redfish/v1/AccountService/Accounts"  
  },  
  "ActiveDirectory": {  
    "Authentication": {  
      "AuthenticationType": "UsernameAndPassword",  
      "Password": null,  
      "Username": ""  
    },  
    "LDAPService": {  
      "SearchSettings": {  
        "BaseDistinguishedNames": [  
          ""  
        ],  
        "GroupsAttribute": "",  
        "UsernameAttribute": ""  
      }  
    },  
    "RemoteRoleMapping": [],  
    "ServiceAddresses": [  
      ""  
    ],  
    "ServiceEnabled": false  
  },  
  "Description": "Account Service",  
  "Id": "AccountService",  
  "LDAP": {  
    "Authentication": {
```

```
        "AuthenticationType": "UsernameAndPassword",
        "Password": null,
        "Username": ""
    },
    "Certificates": {
        "@odata.id": "/redfish/v1/AccountService/LDAP/Certificates"
    },
    "LDAPService": {
        "SearchSettings": {
            "BaseDistinguishedNames": [
                ""
            ],
            "GroupsAttribute": "",
            "UsernameAttribute": ""
        }
    },
    "RemoteRoleMapping": [],
    "ServiceAddresses": [
        ""
    ],
    "ServiceEnabled": false
},
"MaxPasswordLength": 20,
"MinPasswordLength": 8,
"Name": "Account Service",
"Oem": {
    "OpenBMC": {
        "@odata.id": "/redfish/v1/AccountService#/Oem/OpenBMC",
        "@odata.type": "#OpenBMCAccountService.v1_0_0.AccountService",
        "AuthMethods": {
            "BasicAuth": true,
            "Cookie": true,
            "SessionToken": true,
            "TLS": true,
            "XToken": true
        }
    }
},
"Roles": {
    "@odata.id": "/redfish/v1/AccountService/Roles"
},
"ServiceEnabled": true
}
```

Method

PATCH

Parameters

"AccountLockoutDuration"(option)
"AccountLockoutThreshold"(option)
"MaxPasswordLength"(option)
"MinPasswordLength"(option)
"LDAP"(option)
"ActiveDirectory"(option)
"Oem"(option)

Request Example

Change the properties of the account resource.

```
curl -k -H "X-Auth-Token: $token" -H "Content-Type: application/json" -X
PATCH https://{bmc}/redfish/v1/AccountService -d
'{"AccountLockoutThreshold":4, "AccountLockoutDuration":0 }'
```

Response Example

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": " The request completed successfully. ",
      "MessageArgs": [],
      "MessageId": " Base.1.16.0.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    },
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": " The request completed successfully.",
      "MessageArgs": [],
      "MessageId": " Base.1.16.0.Success",
      "MessageSeverity": "OK",
      "Resolution": "None"
    }
  ]
}
```

**redfish/v1/
AccountService/Roles** Gets the information of account roles.

URL

/redfish/v1/AccountService/Roles

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/
AccountService/Roles/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/AccountService/Roles",
```

```
"@odata.type": "#RoleCollection.RoleCollection",
>Description": "BMC User Roles",
>Members": [
>  {
>    "@odata.id": "/redfish/v1/AccountService/Roles/Administrator"
>  },
>  {
>    "@odata.id": "/redfish/v1/AccountService/Roles/Operator"
>  },
>  {
>    "@odata.id": "/redfish/v1/AccountService/Roles/ReadOnly"
>  }
>],
>Members@odata.count": 3,
>Name": "Roles Collection"
>}
```

redfish/v1/ Gets the information of accounts.
AccountService/
Accounts **URL**

/redfish/v1/AccountService/Accounts

Method

GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/
AccountService/Accounts/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/AccountService/Accounts",
  "@odata.type": "#ManagerAccountCollection.ManagerAccountCollection",
  >Description::": "BMC User Accounts",
  >Members": [
  >  {
  >    "@odata.id": "/redfish/v1/AccountService/Accounts/root"
  >  },
  >  {
  >    "@odata.id": "/redfish/v1/AccountService/Accounts/debuguser"
  >  }
>],
>Members@odata.count": 2,
>Name": "Accounts Collection"
>}
```

Method

POST

Parameters

"UserName"

"Password"

"RoleId"(option)

"Enabled"(option)

Request Example

Create a new account.

```
curl -k -H "X-Auth-Token: $token" -H "Content-Type: application/json" -X POST
https://${bmc_ip}/redfish/v1/AccountService/Accounts -d '{"UserName":
"debuguser", "Password": "OpenBmc1", "RoleId": "Administrator"}'
```

Response Example

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_1_1.Message",
      "Message": "The resource has been created successfully.",
      "MessageArgs": [],
      "MessageId": "Base.1.16.0.Created",
      "MessageSeverity": "OK",
      "Resolution": "None."
    }
  ]
}
```

redfish/v1/ Gets the information of accounts.

AccountService/

Accounts/<str> **URL**

/redfish/v1/AccountService/Accounts/<str>

Method

GET

Parameters

str: account name

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/AccountService/Accounts/debuguser
```

Response Example

```
{
  "@odata.id": "/redfish/v1/AccountService/Accounts/debuguser",
  "@odata.type": "#ManagerAccount.v1_4_0.ManagerAccount",
  "AccountTypes": [
    "Redfish"
  ],
  "Description::": "User Account",
  "Enabled": true,
  "Id": "debuguser",
  "Links": {
    "Role": {
      "@odata.id": "/redfish/v1/AccountService/Roles/Administrator"
    }
  },
  "Locked": false,
  "Locked@Redfish.AllowableValues": [
    "false"
  ],
  "Name": "User Account",
  "Password": null,
  "PasswordChangeRequired": false,
  "RoleId": "Administrator",
  "UserName": "debuguser"
}
```

Method DELETE

Request Example

Delete an account.

```
curl -k -H "X-Auth-Token: $token" -X DELETE https://${bmc_ip}/redfish/v1/AccountService/Accounts/debuguser
```

Response Example

```
{
  "@Message.ExtendedInfo": [
    {
      "@odata.type": "#Message.v1_0_0.Message",
      "Message": "The account was successfully removed.",
      "MessageArgs": [],
      "MessageId": "Base.1.8.1.AccountRemoved",
    }
  ]
}
```

```
        "MessageSeverity": "OK",  
        "Resolution": "No resolution is required."  
    }  
  ]  
}
```

**redfish/v1/
AccountService/
LDAP/Certificates** Gets the information of LDAP certificates.
URL

/redfish/v1/AccountService/LDAP/Certificates

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip}/redfish/v1/  
AccountService/LDAP/Certificates
```

Response Example

```
{  
  "@odata.id": "/redfish/v1/AccountService/LDAP/Certificates",  
  "@odata.type": "#CertificateCollection.CertificateCollection",  
  "Description": "A Collection of LDAP certificate instances",  
  "Members": [],  
  "Members@odata.count": 0,  
  "Name": "LDAP Certificates Collection"  
}
```

**redfish/v1/
CertificateService/
CertificateLocations** Defines a resource that an administrator can use in order to locate all certificates installed on a given service.
URL

/redfish/v1/CertificateService/CertificateLocations

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip}/redfish/v1/CertificateService/CertificateLocations/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/CertificateService/CertificateLocations",
  "@odata.type": "#CertificateLocations.v1_0_0.CertificateLocations",
  "Description": "Defines a resource that an administrator can use in order
to locate all certificates installed on a given service",
  "Id": "CertificateLocations",
  "Links": {
    "Certificates": [
      {
        "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/
Certificates/1"
      }
    ],
    "Certificates@odata.count": 1
  },
  "Name": "Certificate Locations"
}
```

redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates Gets a collection of HTTPS certificate instances.
URL /redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://${bmc_ip} redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates",
  "@odata.type": "#CertificateCollection.CertificateCollection",
  "Description": "A Collection of HTTPS certificate instances",
  "Members": [
    {

```

```

        "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/
Certificates/1"
    }
],
    "Members@odata.count": 1,
    "Name": "HTTPS Certificates Collection"
}

```

redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/<str> Gets an HTTPS certificate.

URL /redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/<str>

Method GET

Request Example

```

curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip} redfish/v1/
Managers/bmc/NetworkProtocol/HTTPS/Certificates/1

```

Response Example

```

{
    "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/
1",
    "@odata.type": "#Certificate.v1_0_0.Certificate",
    "CertificateString": "-----BEGIN CERTIFICATE-----
\nMIIDlzCCAn8CFFCCLVEwyaNn0bpR8R1kpHvvn6L+MA0GCSqGSIB3DQEBcwUAMIGD\nMQswCQY
DVQqGEwJBVTEMMaOgA1UECAwDMTEwMQ8wDQYDVQQHDAZ0YXV13YXW4xZDZAN\nBgNVBAoMBmFjY3Rv
bjEPMA0GA1UECwwGYWNjdG9uMQ0wCwYDVQQDDAR0ZXN0MSQw\nIgwYJKoZIhvcNAQkBFhVhbHZpb
l9mZW5uQGJjY3Rvbi5jb20wHhcNMjQwMTEwMDk0\nNTM0WmcNMjUwMTA5MDk0NTM0WjCBizEQMA
4GA1UEBwwHSHNpbmNodTEQMA4GA1UE\nAwwHMS4xLjEuMTELMakGA1UEBhMCMVVMxDTALBgQrDgM
CDANSU0ExHTAbBgNVHSUM\nFFNlcnZ1ckF1dGhlbnRpY2F0aW9uMQ8wDQYDVQQKDAZBY2N0b24x
DDAKBgNVBAsM\nA1NXMTELMakGA1UECAwCQVUwggEiMA0GCSqGSIB3DQEBQUAA4IBDwAwggEKA
oIB\nAQDKqbH0loFqILjgbPVxc/
pLdyTLY11+cs110nVTADHbYmaatSgvnceYltSigJqg\nL834RdWbHalm2ANzW8xzOH7UQm14JGi
obuxr5m//
IjAtEzjW1E+E8fvx+t01Qnmr\nZEEZqiQI9t6LNLWiQJwNMUKSokT2CK5I8bSRYfy6OYzU7yGCJ4
ZaJoBbnqyk2o+Gn\n672pCo96/
KP9kFLuQ0t4CgUSi221a+nZbEI0sLk2qlsi9KZnJyNT0zilIjXW+UK9\nnPWUSJs6zCUzoJj4HNR
LOcXTrOIUEXONDUFrdBNSyOep7wVKLDalh4+NK41hOteKs\nnbgJIQLoidd8CPADgVU1Hmt8VAgM
BAAEWdQYJKoZIhvcNAQELBQADggEBAEBm5s4e\nFT2VOYfGZODI/8uHj/
V9eLcq5mbxJVXl73NOK7wErOUfpaGF0ZLJqLo6eRhx2E4\nnsRMoz6KQG+RA9ouIxtslyJb3nO
ohDD6ma2h3DuTbTqqQ9CXHiNJ6CTN85bli825\nnERpodj3G5w6IILaO0VP+HuyGCMBd0N22HPOI
2KtLlVvkIBdAOCAKDJpiMJAZyhPC\n/
O7taKYoOHRdclASOCSWx2M30YNnDqc+6Grwi2uawcCEca5yvnwdsoOoHe5dZlSu\nnlCD8f9UVRE
ab7y7Eay84sGwzLSKtalr6cQpp90VWzx8tZISS9dtCB+HSP1A1WCFg\nn2FGu7akvbMOVtww=\n-
-----END CERTIFICATE-----\n",
    "Description": "HTTPS Certificate",
    "Id": "1",
    "Issuer": {
        "City": "taiwan",

```

```
        "CommonName": "test",
        "Country": "AU",
        "Organization": "accton",
        "OrganizationalUnit": "accton",
        "State": "111"
    },
    "KeyUsage": [],
    "Name": "HTTPS Certificate",
    "Subject": {
        "City": "Hsinchu",
        "CommonName": "1.1.1.1",
        "Country": "US",
        "Organization": "Accton",
        "OrganizationalUnit": "SW1",
        "State": "AU"
    },
    "ValidNotAfter": "2025-01-09T05:45:34+08:00",
    "ValidNotBefore": "2024-01-10T05:45:34+08:00"
}
```

redfish/v1/ Gets a collection of HTTPS certificate instances.
Managers/bmc/
Truststore/ **URL**
Certificates **/redfish/v1/Managers/bmc/Truststore/Certificates**

Method
GET

Request Example

```
curl -k -H "X-Auth-Token: $token" -X GET https://{bmc_ip} redfish/v1/Managers/bmc/Truststore/Certificates/
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Managers/bmc/Truststore/Certificates/",
  "@odata.type": "#CertificateCollection.CertificateCollection",
  "Description": "A Collection of TrustStore certificate instances",
  "Members": [],
  "Members@odata.count": 0,
  "Name": "TrustStore Certificates Collection"
}
```

redfish/v1/ CertificateService/ Actions/ CertificateService.Re placeCertificate	Replaces HTTPS certificate instances.
URL	/redfish/v1/CertificateService/Actions/CertificateService.ReplaceCertificate
Method	POST

Request Example

```
curl -k -H "X-Auth-Token: $token" -X POST https://{bmc_ip} /redfish/v1/
CertificateService/Actions/CertificateService.ReplaceCertificate/ -d
@certificate.json
```

Response Example

```
{
  "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/
1",
  "@odata.type": "#Certificate.v1_0_0.Certificate",
  "CertificateString": "-----BEGIN CERTIFICATE-----
\nMIIDlzCCAn8CFFCCLVEWyaNn0bpR8R1kpHvvn6L+MA0GCSqGSIB3DQEBCwUAMIGD\nMQswCQY
DVQqQGEwJBVTEMMaOgA1UECAwDMTEwMQ8wDQYDVQQHDAZ0YW13YW4xDzAN\nBgNVBAoMBmFjY3Rv
bjEPMA0GA1UECwwGYWNjdG9uMQ0wCwYDVQQDDAR0ZXN0MSQw\nIgwYJKoZIhvcNAQkBFhVhbHJpb
l9mZW5nQGfjY3Rvbi5jb20wHhcNMjQwMTEwMDk0\nNTM0WWhcNMjUwMTA5MDk0NTM0WjCBizEQMA
4GA1UEBwwHSHNpbmNodTEQMA4GA1UE\nAwWHMS4xLjEuMTELMakGA1UEBhMCVVMxDTALBgQrDgM
CDANSU0ExHTAbBgNVHSUM\nFFNlcnZlckFldGhlbnRpY2F0aW9uMQ8wDQYDVQQKDAZBY2N0b24x
DDAKBgNVBAsM\nA1NXMTELMakGA1UECAwCQVUwggEiMA0GCSqGSIB3DQEBAQUAA4IBDwAwggEKA
oIB\nAQDKqbH0loFqILjgbPVxc/
pLdyTLy11+cs110nVTADHbYmaatSgvnceYltSigJqg\nnL834RdWbHAlm2ANzW8xzOH7UQm14JGi
obuxr5m//
IjAtEzjWlE+E8fvx+t0lQnmr\nnZEZQiQI9t6LNLWiQJwNMUKSokT2CK5I8bSRYfy6OYzU7yGCJ4
ZaJoBbnqyk2o+Gn\nn672pCo96/
KP9kFLuQ0t4CgUSi221a+nZbEI0sLk2qlsi9KZnJyNT0zilIjXW+UK9\nnPWUSJs6zCUzoJj4HNR
LOcXTroIUEXONDUFrdBNSyOep7wVKLDalh4+nK41hOteKs\nnbgJIQLOidd8CPADgVU1Hmt8VAGM
BAAEWdQYJKoZIhvcNAQELBQADggEBABEm5s4e\nnFT2VOYfGZODI/8uHj/
V9eLcq5mbxJVXl73NOK7wErOUfpaGF0ZLJqLo6eRhx2E4\nnsRMOz6KQG+RA9ouIxtslyJb3nO
ohDD6ma2h3DuTbTqqQ9CXHiNJ6CTN85bli825\nnERpodj3G5w6IILaO0VP+HuyGCMBd0N22HPOI
2KtLlVVkIBdAOCAKDjpiMJAZyhpC\n/
O7taKYoOHRdclASOCSWx2M30YNnDqc+6Grwi2uawcCEca5yvnwdsoOoHe5dz1Su\nnlCD8f9UVrE
ab7y7Eay84sGwzLSKtalr6cQpp90VWzx8tZISS9dtCB+HSP1A1WCFg\nn2FGu7akvbMOVtww=\n-
-----END CERTIFICATE-----\n",
  "Description": "HTTPS certificate",
  "Id": "1",
  "Issuer": {
    "City": "taiwan",
    "CommonName": "test",
    "Country": "AU",
    "Organization": "accton",
    "OrganizationalUnit": "accton",
    "State": "111"
  },
  "KeyUsage": [],
  "Name": "HTTPS certificate",
  "Subject": {
    "City": "Hsinchu",
    "CommonName": "1.1.1.1",

```

```
    "Country": "US",  
    "Organization": "Accton",  
    "OrganizationalUnit": "SW1",  
    "State": "AU"  
  },  
  "ValidNotAfter": "2025-01-09T05:45:34+08:00",  
  "ValidNotBefore": "2024-01-10T05:45:34+08:00"  
}
```

redfish/v1/ CertificateService/ Actions/ CertificateService.Ge nerateCSR	Generates a CSR file.
URL	/redfish/v1/CertificateService/Actions/CertificateService.GenerateCSR
Method	POST

Request Example

```
curl -k -H "X-Auth-Token: $token" -X POST https://{bmc_ip} /redfish/v1/  
CertificateService/Actions/CertificateService.GenerateCSR/ -d  
@csr_file.json
```

Response Example

```
{  
  "CSRString": "-----BEGIN CERTIFICATE REQUEST-----  
MIIC0TCCAbkCAQEwgYsxEDAOBgNVBACMB0hzaW5jaHUxEDAOBgNVBAMMBzEuMS4x  
LjExCzAJBgNVBAYTALVTMQ0wCwYEKw4DAgwDU1NBMR0wGwYDVR0LDBRTZXJ2ZXJB  
dXR0ZW50aWNhdGlvbjEPMA0GA1UECgwGQWNjdG9uMQwwCgYDVQQQLDANTVzExCzAJ  
BgNVBAGMAkFVMiIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAYqmx9JaB  
aiC44Gz1cXP6S3cky2NdfnLJZdJ1UwAx22JmmrUoL53HmJbUooCaoC/N+EXVmxwJ  
ZtgDclvMczh+1EJteCROqG7sa+Zv/yIwLRM41tRPhPH78frTtUJ5q2RGUikCPbei  
zSlokCcDTFJEJJE9giuSPG0kWH8ujmMlO8hgiewGwIAAW56spNqPph+u9qQqPevyj/  
ZBS7kDreAoFEotttWvp2WxCNLC5NqpbIvSmZycjU9M4tSI1l1vCvT11EibOswlM  
6CY+BzUSznF06ziFBFzjQ1H0XQTUsjnqe8FSiw2pYePjSuNYTrXirG4CSECzonXf  
AjwA4L1NR5rfFQIDAQABoAAwDQYJKoZIhvcNAQELBQADggEBAUjABzYXc5b8lZ4  
JORLSUFaptM+oa46xR5zttSFHW1be8c2MAyVS5wWjAC6hlpd2/h5/TPEGT26T7/  
hqeOZYxlcaEegNt8ZcdYio4WvOAbeo0lYU/9SJILkz12CWj9l6EPQhXpWYihzHiw  
5cu72BPuq7VnleBdMnFkejuH2zMy4vz18xSyb8G8Ig73pQSz5gFD0vT+cBBg8+  
X2ci4XjDXEdNeonT/EECzOrSxiLFSiEwxeASxxSmgMGzeehhxyXb5xrellobL3Cf  
iBAazB99aC+qam7n5liWB7VpA2KwPN8ScJCijkeskNUGkPpmMcpHNDdfqNoDSOrLH0UA/lg=---  
--END CERTIFICATE REQUEST-----",  
  "CertificateCollection": {  
    "@odata.id": "/redfish/v1/Managers/bmc/NetworkProtocol/HTTPS/Certificates/"  
  }  
}
```

5

Web Interface

This chapter includes the following sections:

- [“Web Interface Overview” on page 174](#)
- [“Web Interface Login” on page 174](#)
- [“Bulletin Board” on page 175](#)
- [“Profile Settings” on page 175](#)
- [“System Overview” on page 177](#)
- [“Logs” on page 180](#)
- [“Hardware Status” on page 182](#)
- [“Operations” on page 188](#)
- [“Settings” on page 197](#)
- [“Security and Access” on page 201](#)
- [“Resource Management” on page 208](#)

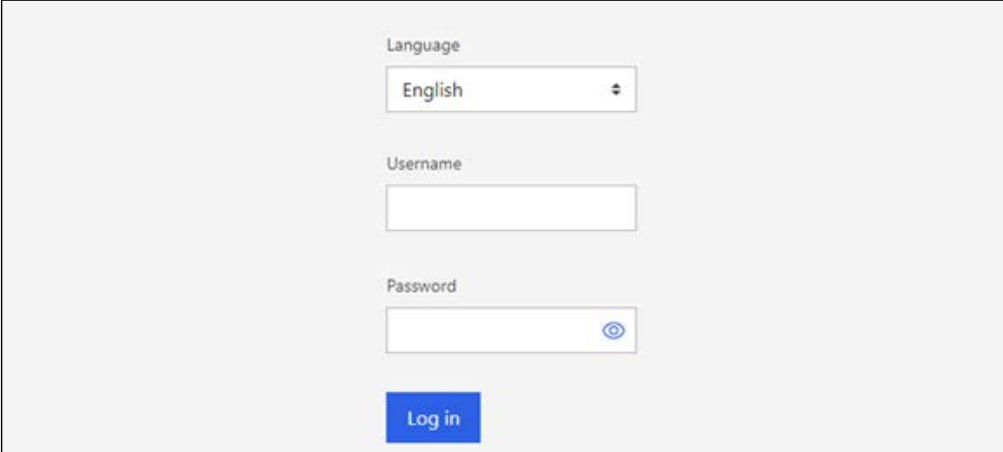
Web Interface Overview

OpenBMC supports web services through the HTTPS protocol, and the BMC web interface can be accessed based on the IP address setting of the BMC's management (MGMT) port. For example, `https://192.168.1.100`, the IP address "192.168.1.100" must be the same as the IP address of the BMC's MGMT port. The BMC web interface on the AGS8200 uses "webui-vue," which is a web-based user interface for the OpenBMC firmware stack built on Vue.js. Each of the following sections describe the functional support based on each web page.

Web Interface Login

This is the login page of the OpenBMC web interface. After you enter a user name and password into the corresponding fields, click the "Log in" button to log in to the web service.

Figure 1: Web Interface Login

The screenshot shows the login page of the OpenBMC web interface. It features a light gray background with a central form. At the top, there is a 'Language' dropdown menu currently set to 'English'. Below this is a 'Username' text input field. Underneath the username field is a 'Password' text input field with a blue eye icon on the right side to toggle password visibility. At the bottom of the form is a blue 'Log in' button.

The following fields on this page are available for configuration.

- **Language** — Select the language that you want to display in the web interface.
- **Username** — Enter a registered username.
- **Password** — Enter a registered password.

Bulletin Board

The bulletin board contains the board serial number, product health, x86 power status, and logged-in user related information.

Figure 2: Bulletin Board



The following icons on the Bulletin Board are displayed or can be clicked.

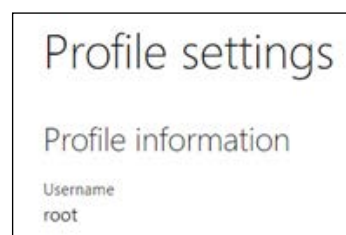
- **Accton** — Click to return to the overview page.
- **Product Serial Number** — Displays the product serial number.
- **Health** — Displays the event log status that has been received. Clicking this button links to the “Event logs” page.
- **Power** — Displays the x86 power state, which is based on the ACPI state. Green indicates power-on status and gray indicates power-off status. Click this button to go to the “Server power operations” page.
- **Logged-in User** — The drop-down list provides “Profile settings” and “log out” options.

Profile Settings

The Profile Settings page displays the currently logged-in user account and provides the options to change the password and configure the timezone.

Profile Information This section displays the logged-in user accounts.

Figure 3: Profile Settings



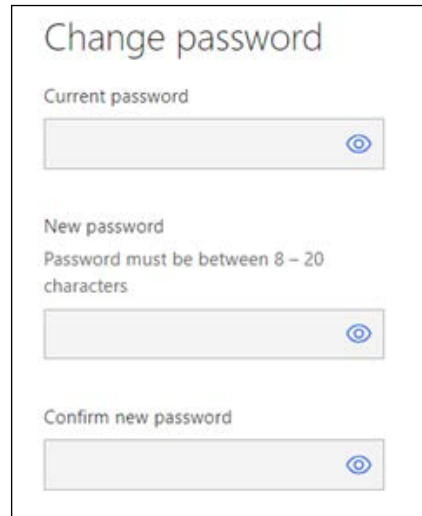
The following field is displayed.

- **Username** - The logged-in user account.

Change Password This page section allows the account password to be changed. First enter the current password, and then enter a new password. Passwords should be between 8-20 characters.

Enter the new password again in “Confirm new password” and then click “Save settings” to save the new password. The web interface logs out automatically and then asks you to log in using the new password.

Figure 4: Change Password

The screenshot shows a web form titled "Change password". It contains three input fields, each with a toggle icon on the right. The first field is labeled "Current password". The second field is labeled "New password" and has a note below it: "Password must be between 8 – 20 characters". The third field is labeled "Confirm new password".

The following fields on this page are available for configuration.

- **Current password** — Enter the old password.
- **New password** — Enter the new password. Passwords must be between 8-20 characters.
- **Confirm new password** — Enter the new password again. Must be the same as the password above.

Timezone Display Preference In this section, you can select how time is displayed throughout the application.

Figure 5: Timezone Display

The screenshot shows a web form titled "Timezone display preference". It has a subtitle: "Select how time is displayed throughout the application". Below this, there is a section labeled "Timezone" with two radio button options: "Default (UTC)" (which is selected) and "Browser offset (台北標準時間 UTC+8)".

The following field on this page is available for configuration.

- **Timezone** — Select how time is displayed throughout the application.

System Overview

This page displays the current system time and system-related information, including server information, firmware information, network information, power information, and status information.

Figure 6: Overview

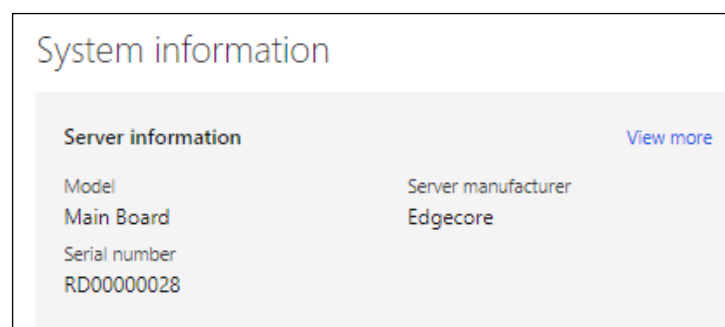


The following fields on this page are available for configuration or information.

- **BMC date and time** — Shows the BMC date and time.
- **SOL console** — Click this button to link to the “SOL console” page.

Server Information The Server Information window is used to display the basic information of the machine, including the model, manufacturer, and serial number.

Figure 7: Server Information



The following fields are displayed in this window.

- **Model** — The board type of the product.
- **Server manufacturer** — The name of the manufacturer.
- **Serial number** — The serial number of the product.
- **View more** — Click this link to go to the “Inventory and LEDs” page.

Firmware Information The Firmware Information window displays the version of the running BMC firmware. Click “View more” to link to the “Firmware” page.

Figure 8: Firmware Information

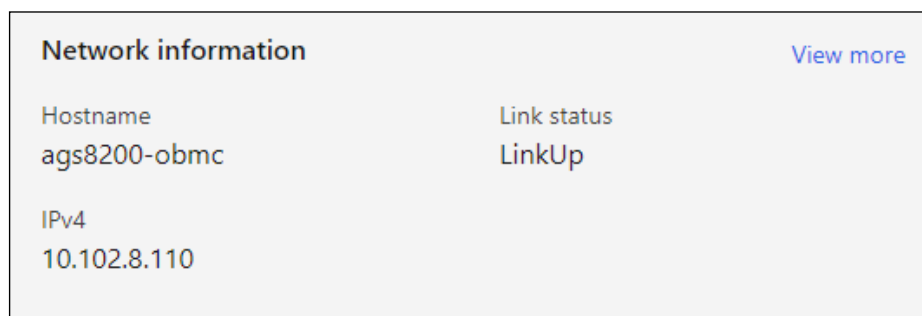


The following fields are displayed in this window.

- **Running** — Displays the version of the running BMC firmware.
- **View more** — Click this link to go to the “Firmware” page.

Network Information The Network Information window displays network information, including the hostname, link status, and IPv4 address. More detailed network information and settings are available through the “View more” link.

Figure 9: Network Information

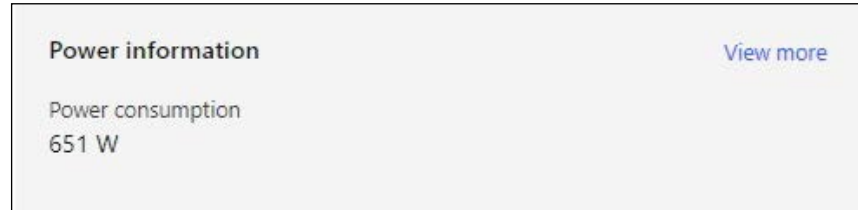


The following fields are displayed in this window.

- **Hostname** — The name of the machine host.
- **Link status** — The network interface link status.
- **IPv4** — Displays the IPv4 address.
- **View more** — Click this link to go to the “Network” page and view detailed network information and settings.

Power Information The Power Information window displays the total power consumption of the machine.

Figure 10: Power Information

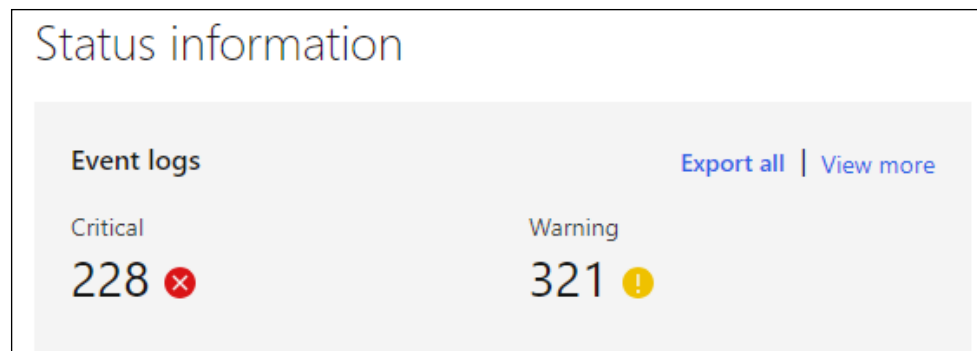


The following fields are displayed in this window.

- **Power consumption** — Displays the total power consumption of the machine.
- **View more** — Click this link to go to the “Power” page and view information about the total power consumption of the machine.

Status Information The Status Information window displays whether the machine currently has any abnormal events with a log level classified as Critical or Warning. You can use the “Export all” option to download related logs, or use the “View more” option to view detailed event logs.

Figure 11: Status Information

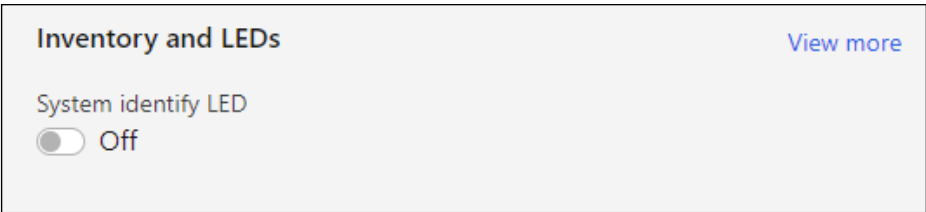


The following fields are displayed in this window.

- **Critical** — Number of critical level logs.
- **Warning** — Number of warning level logs.
- **Export all** — Downloads all logs to a computer.
- **View more** — Click this link to go to the “Event logs” page and view detailed event log information.

Inventory and LEDs The Inventory and LEDs window allows you to turn on or off the machine's UID (Unit Identification) LED. This feature can help you to quickly locate specific machines in the server room.

Figure 12: Inventory and LEDs



The following fields are displayed in this window.

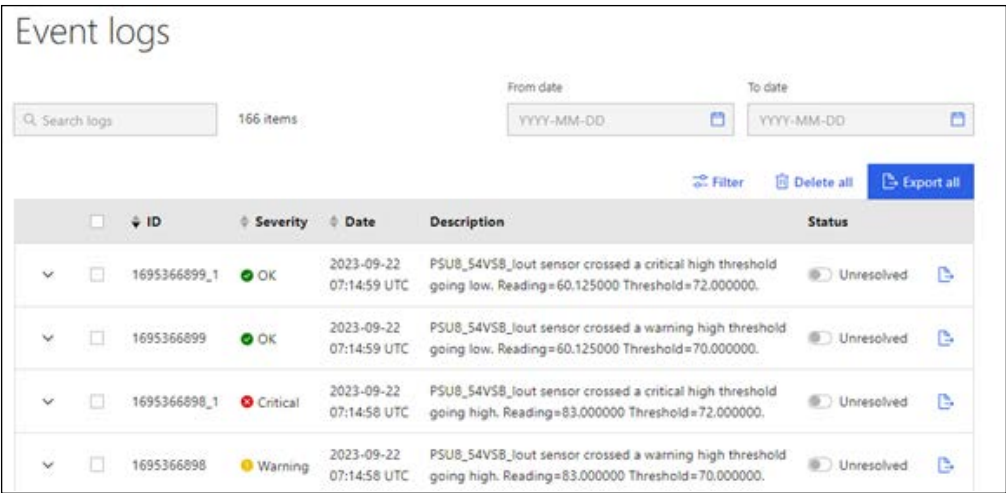
- **System identify LED** — Turns the UID LED on or off.
- **View more** — Click this link to go to the “Inventory and LEDs” page.

Logs

The Logs drop-down menu contains two options, “Event logs” and “POST code logs.” You can view the currently recorded event log status through the “Event logs” page, and check the x86 boot status through “POST code logs” page.

Event Logs The Events Logs page displays system event logs. You can query the logs on this page for troubleshooting and analysis purposes.

Figure 13: Event Logs



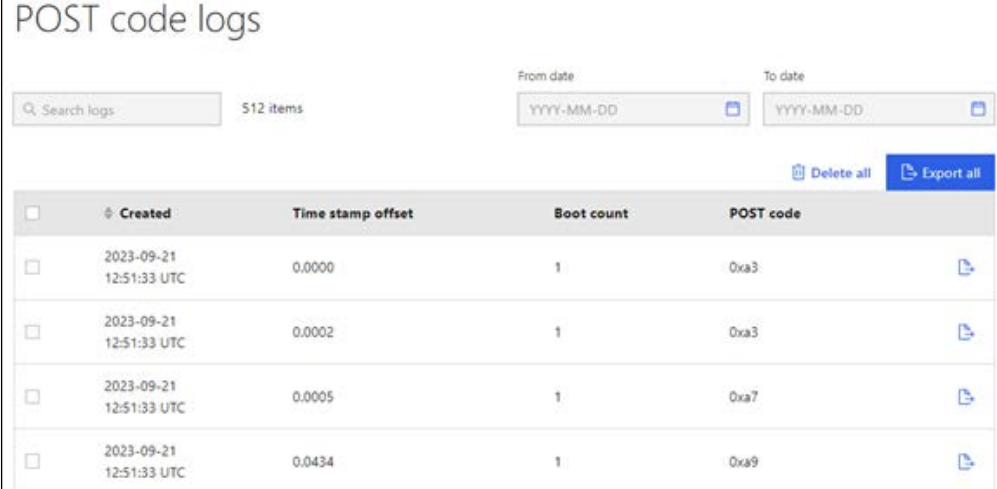
The following fields are displayed on this page.

- **Search logs** — Use keywords to search for specific logs.

- **From date** — Sets the starting time to view logs within an interval.
- **To date** — Sets the end time to view logs within an interval.
- **Filter** — This option can filter logs that users would like to display based on severity and status.
- **Delete all** — Deletes all logs.
- **Export all** — Outputs all logs into files.
- **ID** — Log entry ID.
- **Severity** — Classification log level.
- **Date** — The time when a log event occurred.
- **Description** — The content of a log entry.
- **Status** — The log can indicate resolved or unresolved.

POST Code Logs The POST Code Logs page displays the x86 startup status records.

Figure 14: POST Code Logs



POST code logs

Search logs 512 items

From date YYYY-MM-DD To date YYYY-MM-DD

Delete all Export all

☐	Created	Time stamp offset	Boot count	POST code
☐	2023-09-21 12:51:33 UTC	0.0000	1	0xa3
☐	2023-09-21 12:51:33 UTC	0.0002	1	0xa3
☐	2023-09-21 12:51:33 UTC	0.0005	1	0xa7
☐	2023-09-21 12:51:33 UTC	0.0434	1	0xa9

The following fields are displayed on this page.

- **Search logs** — Use keywords to search for specific post logs.
- **From date** — Sets the starting time to view POST logs within an interval.
- **To date** — Sets the end time to view POST logs within an interval.
- **Delete all** — Deletes all post logs.

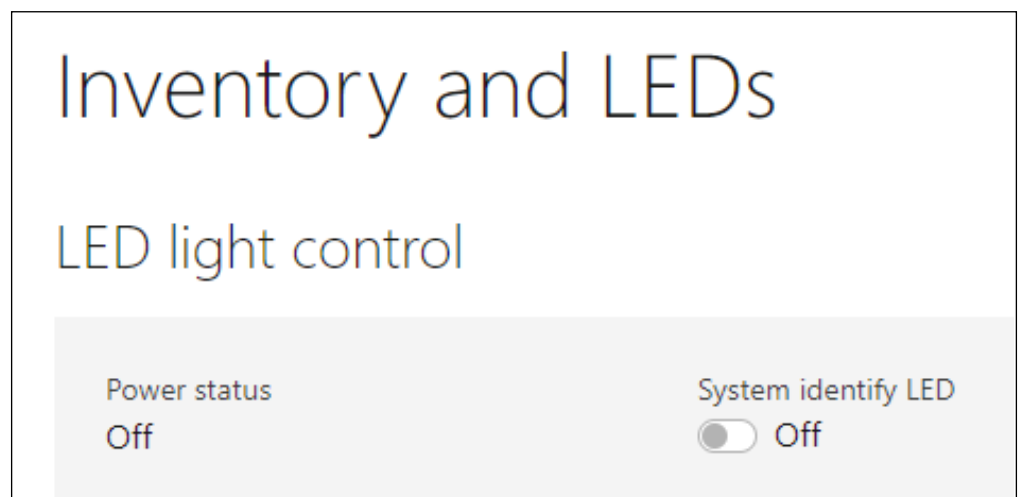
- **Export all** — Outputs all post logs into files.
- **Items per page** — Selects how many POST logs to display on each page.

Hardware Status

The Hardware Status drop-down menu contains two options, “Inventory and LEDs” and “Sensors.” You can view the board and product EEPROM information from the “Inventory and LEDs” page and can enable or disable the UID LED on the AGS8200 AI Server. In addition, you can check the real-time health status of components from the “Sensors” page.

Inventory and LEDs – LED Light Control The Inventory and LEDs window contains two elements, “Power status” and “System identify LED.” The “Power status” indicates whether the power state of the x86 host is on or off, and the “System identify LED” turns the UID LED on or off.

Figure 15: LED Light Control

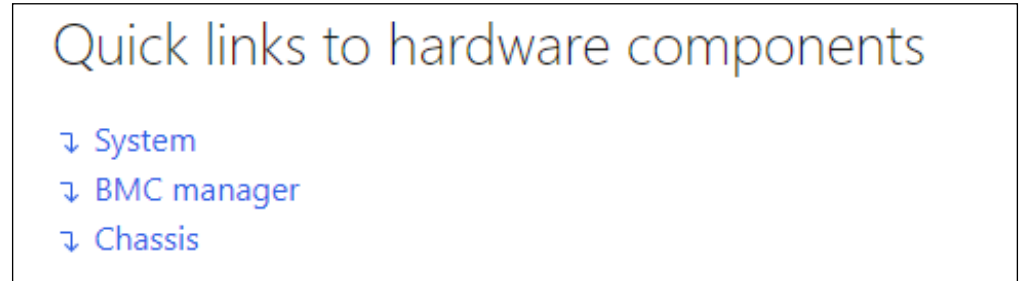


The following fields are displayed in this window.

- **Power status** — The power status of the x86 host.
- **System identify LED** — Turns UID LED light on or off.

Inventory and LEDs – Quick Links The “Quick links to hardware components” window provides three links to the “System,” “BMC manager,” and “Chassis” windows on the same page.

Figure 16: Quick Links to Hardware Components

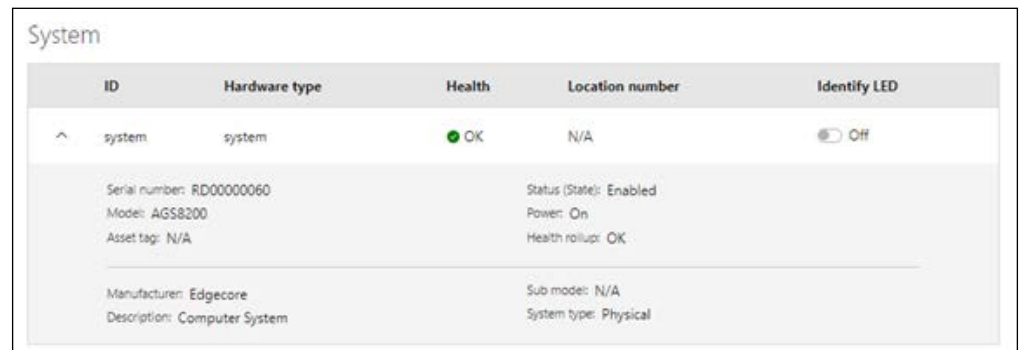


The following fields are displayed in this window.

- **System** — Click this link to the “System” window.
- **BMC manager** — Click this link to the “BMC manager” window.
- **Chassis** — Click this link to the “Chassis” window.

Inventory and LEDs – System The System window displays various information of the main board FRU EEPROM, the power status, and the state of the host system. Click “Identify LED” to turn the UID LED on or off.

Figure 17: Inventory and LEDs - System



The following fields are displayed in this window.

- **ID** — Displays the ID of this window.
- **Hardware type** — Displays the hardware type of this window.
- **Health** — Displays the health status of the host system.
- **Location number** — Displays the location number. This is not defined for AGS8200.

- **Identify LED** — Click this button to turn the UID LED on or off.
- **Serial number** — Displays the product serial number of the main board FRU EEPROM.
- **Model** — Displays the product model name of the main board FRU EEPROM.
- **Assert tag** — Displays the product assert tag of the main board FRU EEPROM.
- **Status (State)** — Displays the state of the host system.
- **Power** — Displays the power status of the host system.
- **Health rollup** — Displays the health rollup status of the host system.
- **Manufacturer** — Displays the product manufacturer of the main board FRU EEPROM.
- **Description** — Displays the description of this window.
- **Sub model** — Displays the product sub model name of the main board FRU EEPROM.
- **System type** — Displays the system type.

Inventory and LEDs – BMC Manager The BMC Manager window displays information of the BMC board FRU EEPROM, the power status, and the state of the BMC system. Click the “Identify LED” to turn on or off the identify LED if it exists.

Figure 18: Inventory and LEDs - BMC Manager

BMC manager			
ID	Health	Location number	Identify LED
^ bmc	OK	N/A	N/A
Name: OpenBmc Manager Part number: N00MX2280002H Serial number: AM47034318 Spare part number: N/A Model: BMC Card UUID: bf3e5794-d9bf-4a52-92f7-b9f6b6c12800 Service entry point UUID: d70d955d-03c3-480f-81c9-7bfbf87b9b25 Status (State): Starting Power: On Health rollup: N/A BMC date and time: 2023-09-22 08:54:37 UTC Last reset time: 2023-09-22 08:46:15 UTC Manufacturer: Accton Description: Baseboard Management Controller Manager type: BMC Firmware version: v00.00.05h-11-g0bb4ceb1eb Graphical console Connect types supported: KVMiP Max concurrent sessions: 4 Service enabled: true Serial console Connect types supported: IPMI, SSH Max concurrent sessions: 15 Service enabled: true			

The following fields are displayed in this window.

- **ID** — Displays the ID of this window.
- **Health** — Displays the health status of the BMC system.
- **Location number** — Displays the location number. This is not defined for AGS8200.
- **Identify LED** — Click this button to turn on or off the identify LED for the BMC system. Not supported for AGS8200.
- **Name** — Displays the name of the BMC system.
- **Part number** — Displays the board part number of the BMC board FRU EEPROM.
- **Serial number** — Displays the board serial number of the BMC board FRU EEPROM.
- **Spare part number** — Displays the board spare part number of the BMC board FRU EEPROM.
- **Model** — Displays the product model name of the BMC board FRU EEPROM.
- **UUID** — Displays the UUID of the BMC system.
- **Service entry point UUID** — Displays the service entry point UUID of the BMC system.
- **Status (State)** — Displays the state of the BMC system.
- **Power** — Displays the power status of the BMC system.
- **Health rollup** — Displays the health rollup status of the BMC system. This is not defined for AGS8200.
- **BMC date and time** — Displays the date and time of the BMC system.
- **Last reset time** — Displays the date and time of the BMC system.
- **Manufacturer** — Displays the board manufacturer of the BMC board FRU EEPROM.
- **Description** — Displays the description of this window.
- **Manager type** — Displays the manager type.
- **Firmware version** — Displays the running firmware version of the BMC system.

- **Graphical console - Connect types supported** — Displays the supported type of the graphical console.
- **Graphical console - Max concurrent sessions** — Displays the max concurrent sessions number of the graphical console.
- **Graphical console - Service enabled** — Displays the enabled status of the graphical console.
- **Serial console - Connect types supported** — Displays the supported type of the serial console.
- **Serial console - Max concurrent sessions** — Displays the max concurrent sessions number of the serial console.
- **Serial console - Service enabled** — Displays the enabled status of the serial console.

Inventory and LEDs – Chassis The Chassis window displays information from the FRU EEPROM of boards and components. Click “Identify LED” to turn on or off the board identify LED.

Figure 19: Inventory and LEDs - Chassis

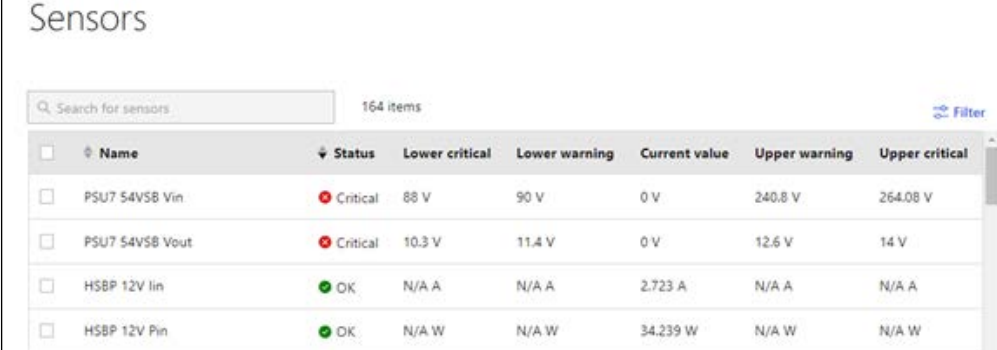
Chassis			
ID	Health	Location number	Identify LED
Baseboard	OK	N/A	Off
Name: Baseboard Part number: 142000003751H Serial number: RD00000001 Model: Main Board Status (State): Enabled Health rollout: OK Asset tag: N/A Manufacturer: Edgecore Chassis type: RackMount			
FAN1	OK	N/A	N/A
FAN2	OK	N/A	N/A

The following fields are displayed in this window.

- **ID** — The name of the board.
- **Health** — The status of the board.
- **Location number** — If the board has a location number, it will be displayed in this field. Otherwise, it will show as “NA”.
- **Identify LED** — If the board has an LED indicator, you can click to turn it on.

Sensors The Sensors window displays the values and status of all sensors. It provides real-time information about sensor readings and the operational status of components.

Figure 20: Sensors



The screenshot shows a web interface titled "Sensors". Below the title is a search bar labeled "Search for sensors" and a count "164 items". To the right of the count is a "Filter" button. Below these elements is a table with the following columns: Name, Status, Lower critical, Lower warning, Current value, Upper warning, and Upper critical. The table contains four rows of data:

Name	Status	Lower critical	Lower warning	Current value	Upper warning	Upper critical
PSU7 54V5B Vin	Critical	88 V	90 V	0 V	240.8 V	264.08 V
PSU7 54V5B Vout	Critical	10.3 V	11.4 V	0 V	12.6 V	14 V
H5BP 12V Iin	OK	N/A A	N/A A	2.723 A	N/A A	N/A A
H5BP 12V Pin	OK	N/A W	N/A W	34.239 W	N/A W	N/A W

The following fields are displayed in this window.

- **Search for sensors** — Uses keywords to search for a specific sensor.
- **Filter** — This option can filter the sensors and components that you want to display based on the OK/Warning/Critical status.
- **Name** — Sensor name.
- **Status** — Sensor status.
- **Lower critical** — Lower critical sensor value.
- **Lower warning** — Lower warning sensor value.
- **Current value** — Current sensor value.
- **Upper warning** — Upper warning sensor value.
- **Upper critical** — Upper critical sensor value.

Operations

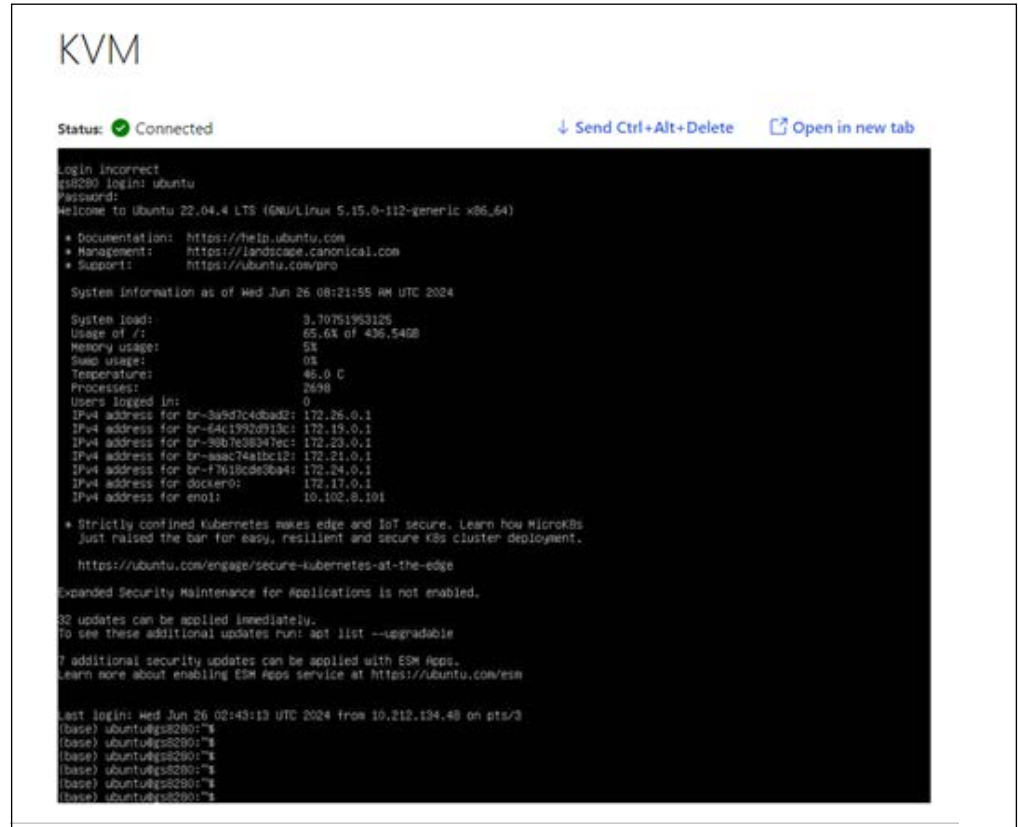
The Operations drop-down menu contains six options, “KVM”, “Firmware”, “Reboot BMC”, “SOL console”, “Server power operations”, and “Virtual media”. The “KVM”, “SOL console” and “Virtual media” pages are remote-control host related functions. In addition, you can update the BMC firmware and obtain BMC firmware information through the “Firmware” page, and set x86 power related operations through the “Server power operations” page.

KVM This page provides the KVM (Keyboard, Video and Mouse) feature for the host system and displays the status. KVM is a feature within the BMC firmware that allows for remote management of a computer system. Through KVM, you can interact with the host system as if you were physically present, providing the capability to manage and troubleshoot systems remotely.

Click the “Send Ctrl+Alt+Delete” button to simulate sending a Ctrl+Alt+Delete command to the host operating system. Click the “Open in new tab” button to open this web page in another browser tab.

Note that the host BIOS and operating system should install the Aspeed VGA controller driver to fully support the VGA controller’s features for AGS8200. For more detailed instructions, refer to the “Aspeed Graphics User Guide”.

Figure 21: KVM



The following fields are displayed on this page.

- **Status** — Displays the status of the KVM.
- **Send Ctrl+Alt+Delete** — Click this button to simulate sending a Ctrl+Alt+Delete command to the host operating system.
- **Open in new tab** — Click this button to open this web page in another browser tab.

Firmware – BMC and Server

The BMC and Server window displays the version of the running BMC firmware.

Figure 22: Firmware – BMC and Server



The following field is displayed in this window.

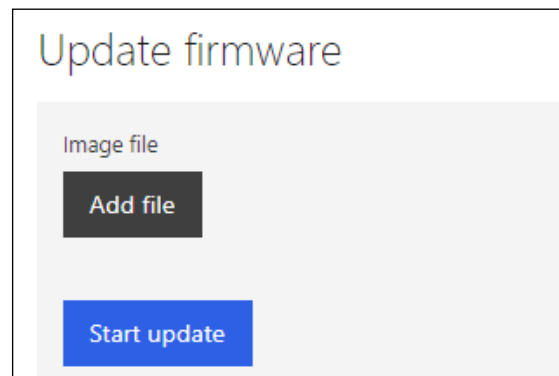
- **Running image** — Displays the version of the running BMC firmware.

Firmware – Update Firmware

The Update Firmware window provides the BMC firmware updating feature.

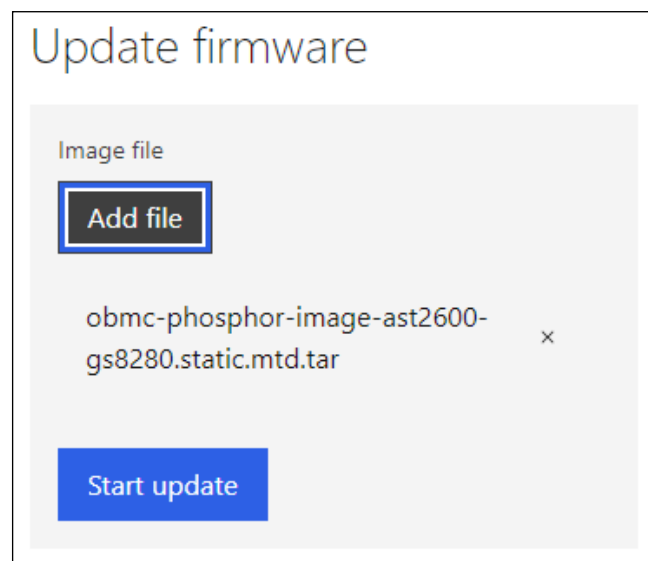
Click the “Add file” button to select the BMC firmware image.

Figure 23: Update Firmware – Add File



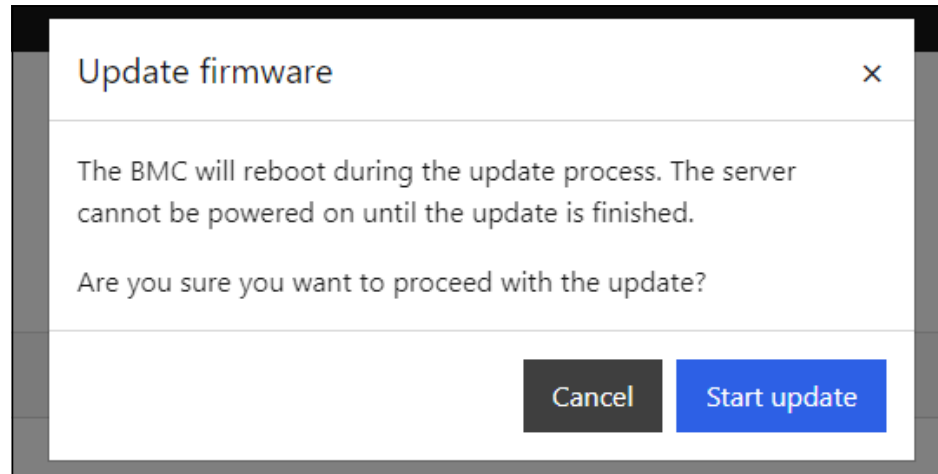
Then click the “Start update” button to start the update.

Figure 24: Update Firmware – Start Update



Click the “Cancel” or “Start update” button of the popup window to cancel or confirm the update procedure.

Figure 25: Update Firmware – Confirm Update



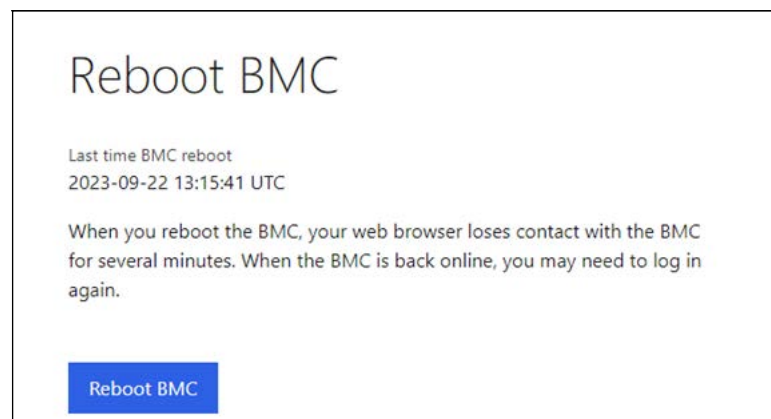
The following fields are displayed in these windows.

- **Add file** — Click this button to select the BMC firmware image for the update.
- **x** — Click this button to cancel the selected file.
- **Start update** — Click this button to start updating the selected BMC firmware image.
- **Cancel** — Click this button to cancel the update request.
- **Start Update** — Click this button to start executing the update procedure.

Reboot BMC The Reboot BMC page displays the time of the last BMC reboot and provides the reboot feature for the BMC.

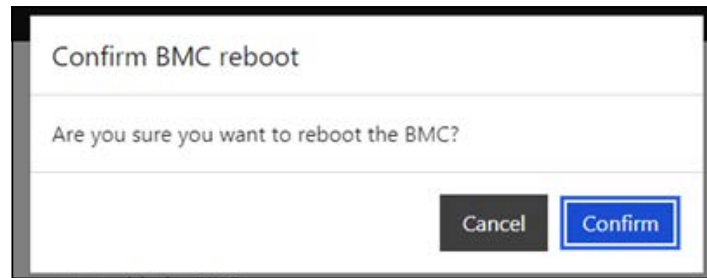
Click the “Reboot BMC” button to start the process.

Figure 26: Reboot BMC - Start



Then click the “Confirm” button to reboot BMC.

Figure 27: Reboot BMC - Confirm



The following fields are displayed in these windows.

- **Last time BMC reboot** — Display the time of the last BMC reboot.
- **Reboot BMC** — Click this button to send the reboot request.
- **Confirm** — Click this button to confirm the reboot request.

SOL Console The SOL Console page provides the Serial-over-LAN (SOL) feature for the host system and displays the status of the SOL console. SOL is a feature within the BMC firmware that allows administrators to remotely access and manage a system's serial console over a network. This capability is essential for troubleshooting and managing systems without needing physical access to them. Click the "Open in new tab" button to open the web page in another browser tab.

Figure 28: SOL Console



The following fields are displayed on this page.

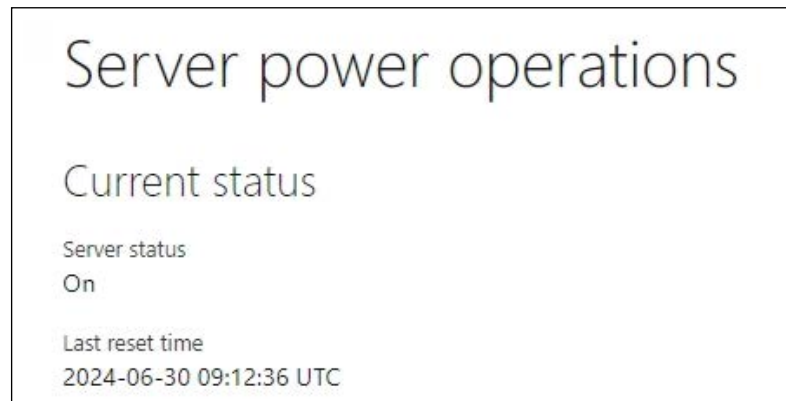
- **Status** — Displays the status of the SOL connection.

- **Open in new tab** — Click the button to open this web page in another browser tab.

Server Power Operations – Current Status

The Server Power Operations – Current Status window displays the status and the last reboot time of the host system.

Figure 29: Server Power Operations – Current Status



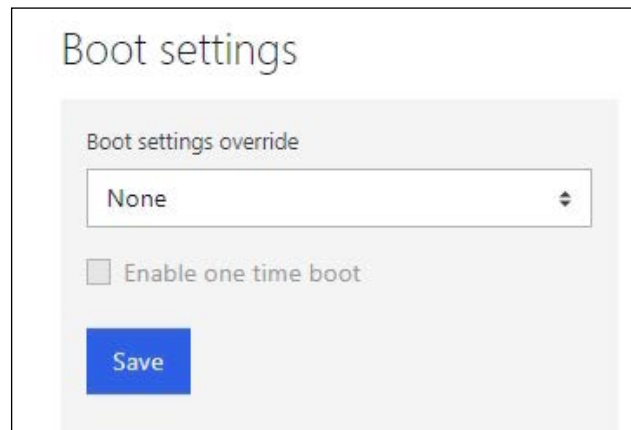
The following fields are displayed in this window.

- **Server status** — Display the status of the host system.
- **Last reset time** — Display the time of the last host system reboot.

Server Power Operations – Boot Settings

The Server Power Operations – Boot Settings page can select the x86 system boot options and set whether to take effect permanently or enable a one-time boot.

Figure 30: Server Power Operations – Boot Settings



The following fields are displayed on this page.

- **Boot settings override** — Select the x86 system boot item from the drop-down list, including the following options: “none”, “Pxe”, “Hdd”, “Cd”, “Diags”, “BiosSetup”, and “Usb”.
- **Enable one time boot** — Choose whether to boot once or make permanent changes.
- **Save** — Saves the boot settings.

Server Power Operations – Operations

The Server Power Operations – Operations window provides two different methods to reboot or shutdown the x86 host, namely forcefully or gracefully. The graceful method involves safely shutting down all running processes and services, ensuring that all data is saved and no corruption occurs. This method is preferred for regular maintenance and updates. The forceful method involves abruptly restarting the system without giving processes time to close properly. This method is used in emergency situations when the system is unresponsive or frozen.

Click the “Orderly” or “Immediate” button to select the desired method first. Then click the “Reboot” or “Shut down” button to execute the procedure based on the selected method. Click the “Cancel” or “Confirm” button of the popup window to cancel or execute the selected procedure.

Figure 31: Server Power Operations – Operations

The screenshot shows a web interface titled "Operations". It contains two main sections: "Reboot server" and "Shutdown server". Each section has two radio button options: "Orderly" (selected) and "Immediate". Below each section is a blue button labeled "Reboot" and "Shut down" respectively.

Operations

Reboot server

☒ Orderly – operating system shuts down, then server reboots

☐ Immediate – Server reboots without operating system shutting down; may cause data corruption

Reboot

Shutdown server

☒ Orderly - operating system shuts down, then server shuts down

☐ Immediate - Server shuts down without operating system shutting down; may cause data corruption

Shut down

Figure 32: Server Power Operations – Confirm Reboot

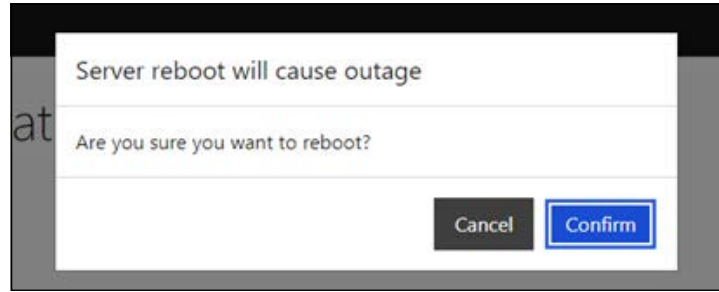
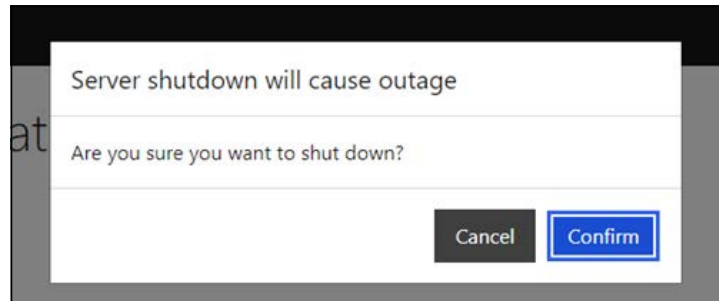


Figure 33: Server Power Operations – Confirm Shutdown



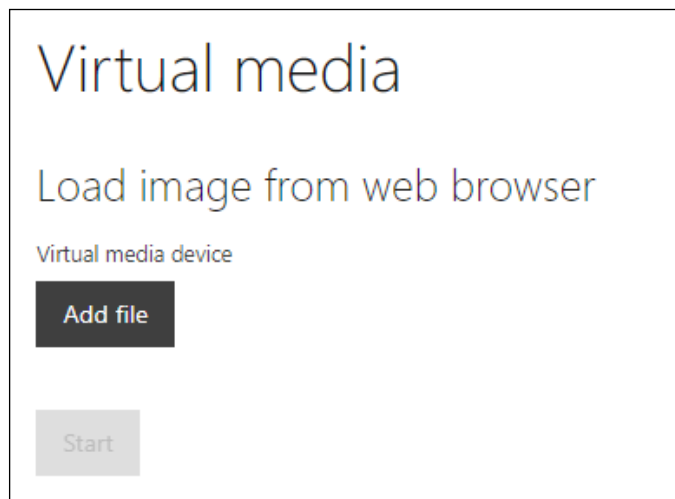
The following fields are displayed in these windows.

- **Orderly** — Gracefully reboot or shutdown the x86 host.
- **Immediate** — Forcefully reboot or shutdown the x86 host.
- **Reboot** — Click this button to reboot the x86 host based on the selected method.
- **Shut down** — Click this button to shutdown the x86 host based on the selected method.
- **Cancel** — Click this button to cancel the reboot or shutdown procedure.
- **Confirm** — Click this button to confirm to execute the reboot or shutdown procedure.

Virtual Media The Virtual Media page provides the virtual media feature for the host system. Virtual media refers to a feature within the firmware that enables administrators to remotely mount and access virtual media, such as ISO images, from a remote server or workstation. This feature facilitates various management tasks, including OS installations, firmware updates, and diagnostics, without the need for physical media or direct access to the system.

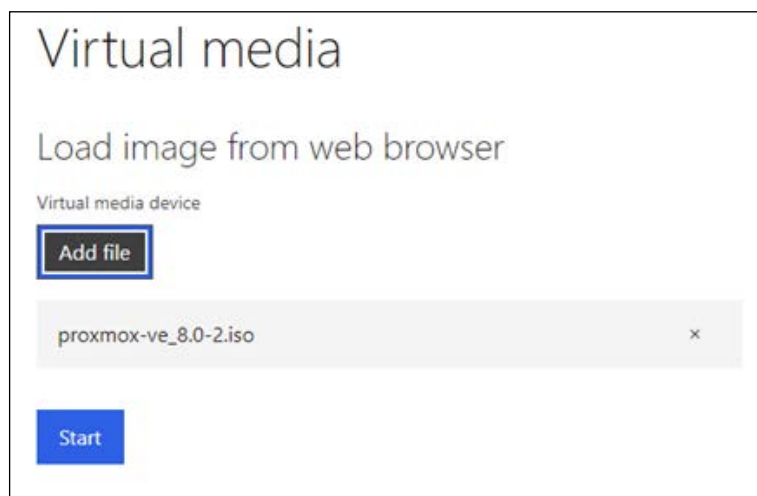
Click “Add file” to select the ISO image you want to mount.

Figure 34: Virtual Media - Add File



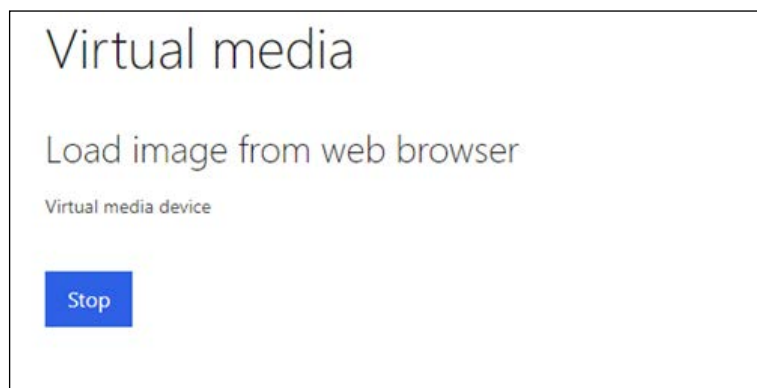
Click the "Start" button to start mounting the selected ISO image.

Figure 35: Virtual Media - Start



Click the "Stop" button to stop mounting the selected ISO image.

Figure 36: Virtual Media - Stop



The following fields are displayed in these windows.

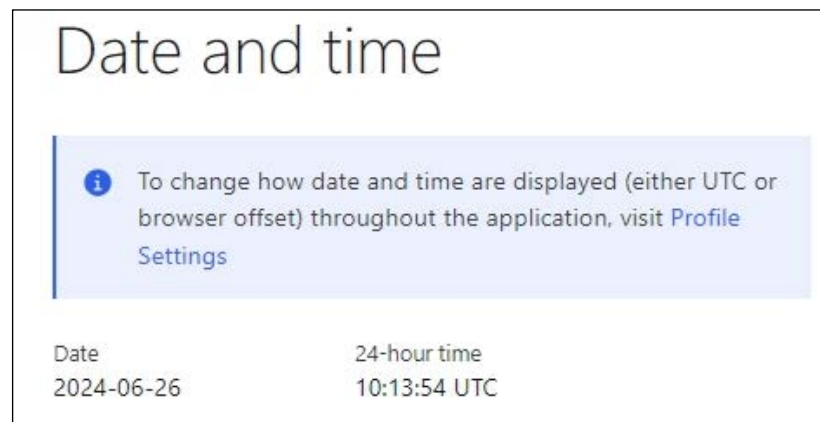
- **Add file** — Click this button to select the ISO images users want to mount.
- **x** — Click this button to cancel the selected file.
- **Start** — Click this button to start mounting the selected ISO image.
- **Stop** — Click this button to stop mounting the selected ISO image.

Settings

The “Settings” drop-down menu contains three options, “Date and Time”, “Network”, and “Power restore policy”. You can configure the system time and RTC time from the “Date and Time” page, and set the BMC’s Ethernet interface from the “Network” page. In addition, the “Power restore policy” page is used to configure the power restore policy of the x86 host.

Date and Time The Date and Time window displays the current system date and time.

Figure 37: Date and Time Settings



The following fields are displayed on this page.

- **Profile Settings** — Click the link to go to the “Profile settings” page.
- **Date** — Displays the current system date.
- **24-hour time** — Displays the current system time (24-hour).

Network The Network page can configure the network settings for the machine and display network information. The configurable options include “DHCP”, “Add static IPv4 address”, “Static DNS”, “Use domain name”, “Use DNS servers”, and “Use NTP servers”.

Figure 38: Network Settings

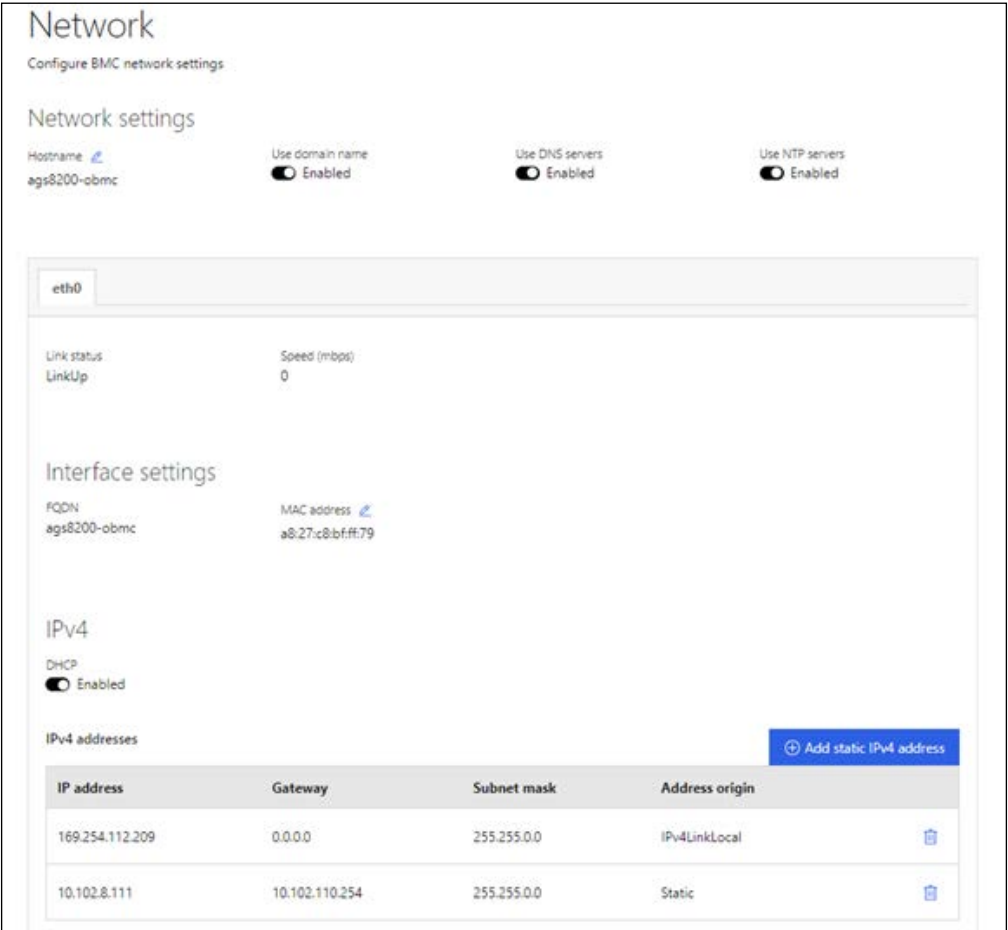


Figure 39: Network Settings - Add Static IP Address

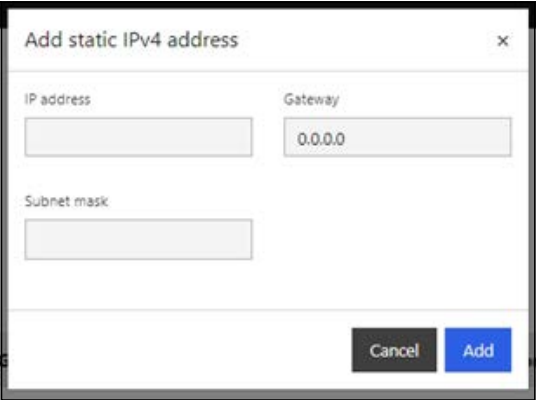


Figure 40: Network Settings - Static DNS

Figure 41: Network Settings - Add Static DNS IP Address

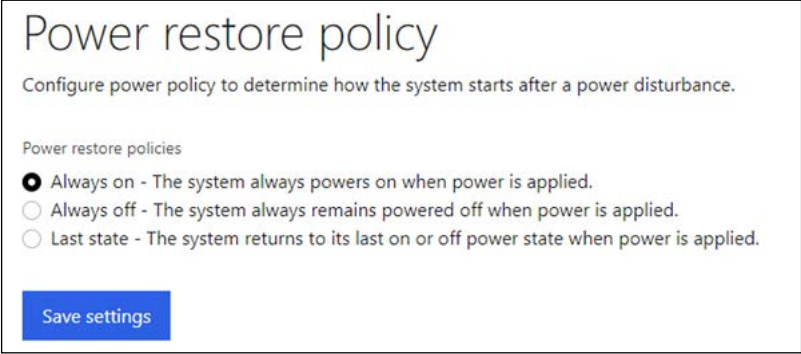
The following fields are displayed in these windows.

- **Hostname** — A hostname is a name used to identify a device or machine.
- **Use domain name** — A domain name is a human-readable address used to identify and access resources on the Internet, such as websites and email servers.
- **Use DNS servers** — DNS servers are specialized computers that translate human-readable domain names (such as `www.example.com`) into numerical IP addresses (such as `192.0.2.1`) that devices use to identify each other on the network.
- **Use NTP servers** — NTP servers are specialized servers that use the Network Time Protocol (NTP) to synchronize the clocks of devices in a network.
- **Link status** — The interface link status.
- **FQDN** — FQDN stands for Fully Qualified Domain Name.
- **Mac address** — A MAC address, or Media Access Control address, is a unique identifier assigned to network interfaces for communications on the physical network.
- **DHCP** — Enables IP address assignment using DHCP.
- **IP address** — The IPv4 address.

- **Gateway** — The IPv4 Gateway.
- **Subnet mask** — The IPv4 subnet mask.
- **Address origin** — Indicates Static or DHCP.
- **Add static IPv4 address** — Click this button to set the IPv4 address.
- **Add ip address** — Click this button to set the IPv4 DNS address.

Power Restore Policy The Power Restore Policy page provides three different power restore policies to use when the power is applied. The default policy is “Always on”. Select one policy and then click the “Save settings” button to permanently save the selected policy.

Figure 42: Power Restore Policy



The screenshot shows a web interface for configuring power restore policies. At the top, the title "Power restore policy" is displayed in a large, dark font. Below the title, a subtitle reads "Configure power policy to determine how the system starts after a power disturbance." Underneath, the section "Power restore policies" is shown. It contains three radio button options: "Always on - The system always powers on when power is applied." (which is selected), "Always off - The system always remains powered off when power is applied.", and "Last state - The system returns to its last on or off power state when power is applied." At the bottom of the form, there is a blue button labeled "Save settings".

The following fields are displayed on this page.

- **Power restore policies** — Click a button to select the power restore policy.
- **Save settings** — Click this button to save the selected power restore policy permanently.

Security and Access

The “Security and access” drop-down menu contains five options, “Sessions”, “LDAP”, “User management”, “Policies”, and “Certificates”. “LDAP” and “User management” are for user account management related functions. “Sessions” and “Policies” are session management related functions. In addition, you can generate a CSR certificate through the “Certificates” page.

Sessions This page displays connected sessions with user names and IP addresses.

Figure 43: Power Restore Policy

Session ID	Context	Username	IP address	
m1ZQ53njPk	-	root	10.212.134.21	Disconnect

The following fields are displayed on this page.

- **Search sessions** — Use keywords to search for a specific session.
- **Session ID** — The session ID for respective users.
- **Context** — The context of the user session.
- **Username** — The user name of the login account.
- **IP address** — The IP address of the user.
- **Disconnect** — Click to pause the session of a specific user.
- **Items per page** — Selects how many sessions to display on each page.

LDAP The Lightweight Directory Access Protocol (LDAP) is a common technique to store passwords. You must first set up an LDAP server and then enter the LDAP settings on this page, including the LDAP server's URI, DN, password, and role groups.

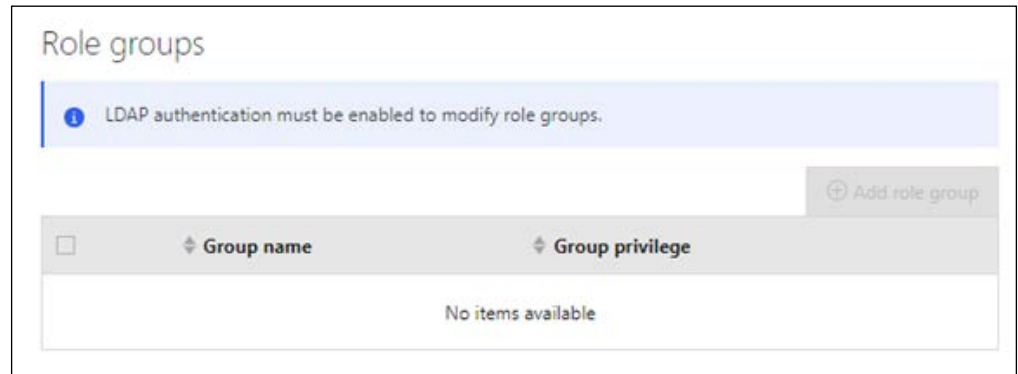
Figure 44: LDAP

The screenshot shows a web interface for configuring LDAP settings. At the top, the title 'LDAP' is displayed, followed by the subtitle 'Configure LDAP settings and manage role groups'. Below this, the 'Settings' section is visible. Under 'LDAP authentication', there is an 'Enable' checkbox which is currently unchecked. The 'Service type' section shows 'OpenLDAP' selected with a radio button. Below this, there are six input fields arranged in two rows of three. The first row contains 'Server URI' (with a help icon), 'Bind DN', and 'Bind password' (with a clear icon). The second row contains 'Base DN', 'User ID attribute - optional', and 'Group ID attribute - optional'. At the bottom left of the form area is a blue 'Save settings' button.

The following fields are displayed on this page.

- **LDAP authentication** — Click to enable LDAP.
- **OpenLDAP** — The service type supports OpenLDAP. Click to select it.
- **Server URI** — Enter the IP address or hostname of the LDAP server.
- **Bind DN** — Enter the distinguished name of the LDAP server.
- **Bind password** — Enter the LDAP server's password.
- **Base DN** — Enter the base distinguished name of the LDAP server.
- **User ID attribute** — Enter the user ID attributes that have been registered in the LDAP server. (Optional)
- **Group ID attribute** — Enter the group ID that has been registered in the LDAP server. (Optional)
- **Save settings** — Click this button to save the settings.

Figure 45: LDAP - Role Groups



After setting the name and privilege, click “Add” to save the group information.

Figure 46: LDAP - Add Role Group

Add new role group

Group name

Group privilege

Select an option

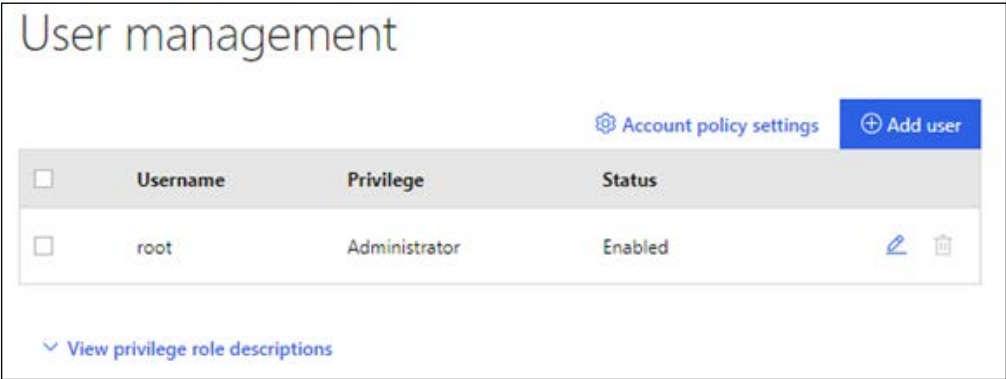
Cancel Add

The following fields are displayed in these windows.

- **Add role group** — After setting the LDAP server information, this button is enabled. Click to add a role group.
- **Group name** — Fill in the group’s name that has been registered in the LDAP server.
- **Group privilege** — Select the group privilege.

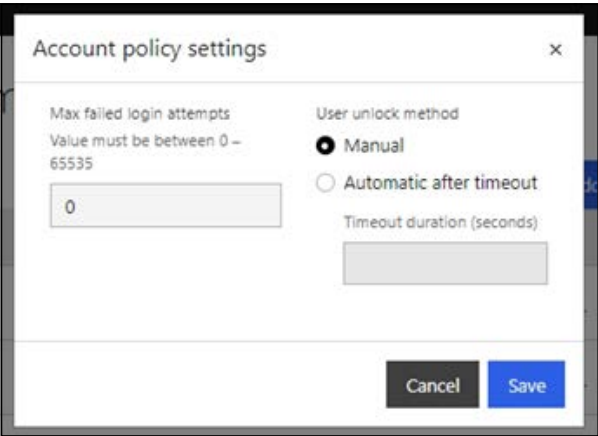
User Management The User Management page displays a list of user account information, including each user's privilege and status. New user accounts can be added from this page. Also, you can edit account information, modify the status to enabled or disabled, and delete specific accounts.

Figure 47: User Management



Click "Account policy settings" on the upper right corner to set an account's policy. After setting up the account policy, click "Save" to save the settings.

Figure 48: User Management - Account Policy

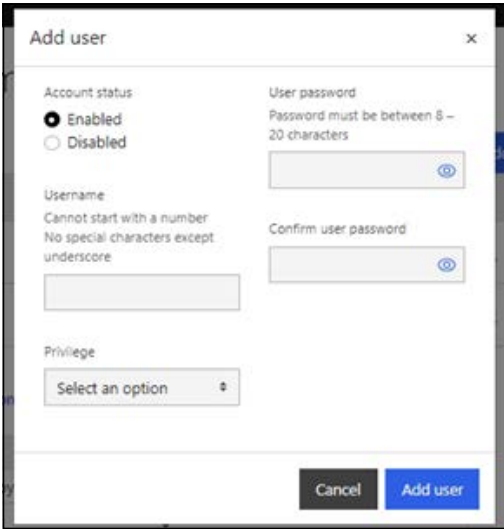


The following fields are displayed in this window.

- **Max failed login attempts** — Set the maximum failed login attempts value for security. The default value is zero.
- **User unlock method** — The default unlock method is manual. An automatic method is also available with a defined timeout duration.

On the User Management page, click "Add user" in the upper right corner to add a user manually. After filling in the account information, click "Add user" to save the settings.

Figure 49: User Management - Add User

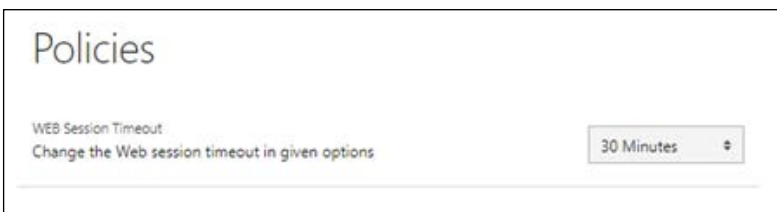
A dialog box titled "Add user" with a close button (X) in the top right corner. It contains several input fields and a dropdown menu. On the left, there is an "Account status" section with two radio buttons: "Enabled" (selected) and "Disabled". Below this is a "Username" section with a text input field and a note: "Cannot start with a number. No special characters except underscore." At the bottom left is a "Privilege" section with a dropdown menu showing "Select an option" and a small upward arrow. On the right, there is a "User password" section with a text input field and a note: "Password must be between 8 - 20 characters". Below that is a "Confirm user password" section with another text input field. At the bottom right are two buttons: "Cancel" and "Add user".

The following fields are displayed in this window.

- **Account status** — Click “enabled” or “disabled” to set the account status.
- **Username** — Enter the user name in a valid format. (Cannot start with a number. No special characters except underscore.)
- **Privilege** — Set the privilege for the account; Administrator, Operator, or ReadOnly.
- **User password** — Enter the user password (8-20 characters).
- **Confirm user password** — Enter the user password again for confirmation.

Policies On the Policies page you can set the web session timeout policy.

Figure 50: Policies - Web Session Timeout

A page titled "Policies" with a subtitle "WEB Session Timeout". Below the subtitle is a text input field with the placeholder text "Change the Web session timeout in given options". To the right of this field is a dropdown menu showing "30 Minutes" and a small upward arrow.

The following field is displayed on this page.

- **WEB Session Timeout** — The drop-down list provides timeout options for web sessions.

Certificates The Certificates page displays all certificates for the BMC. Also, you can generate a Certificate Signing Request (CSR) with the provided information. If you have your own certificate file, the certificate file can be uploaded from this page.

Figure 51: Security Certificates



Certificate	Issued by	Issued to	Valid from	Valid until
HTTPS Certificate	testhost	testhost	2023-09-21	2033-09-18

The following fields are displayed on this page.

- **Certificate** — The certificates type.
- **Issued by** — The organization that issued the certificate.
- **Issued to** — Who the certificate is issued to.
- **Valid from** — The certificate valid start date.
- **Valid until** — The certificate valid end date.
- **Update icon** — Click this icon to update a certificate.
- **Delete icon** — Click the trashcan icon to delete a certificate.

Click the upper right button “Generate CSR” to generate a CSR according to the provided information. After entering all the information, click “Generate CSR” to save the content.

Figure 52: Security Certificates - Generate CSR

Generate a Certificate Signing Request (CSR)

Certificate type: Select an option

Country/Region: Select an option

Private key: Select an option

State:

City:

Company name:

Company unit:

Common name:

Contact person - optional:

Email address - optional:

Alternate name - optional: Add multiple alternate names separated by space

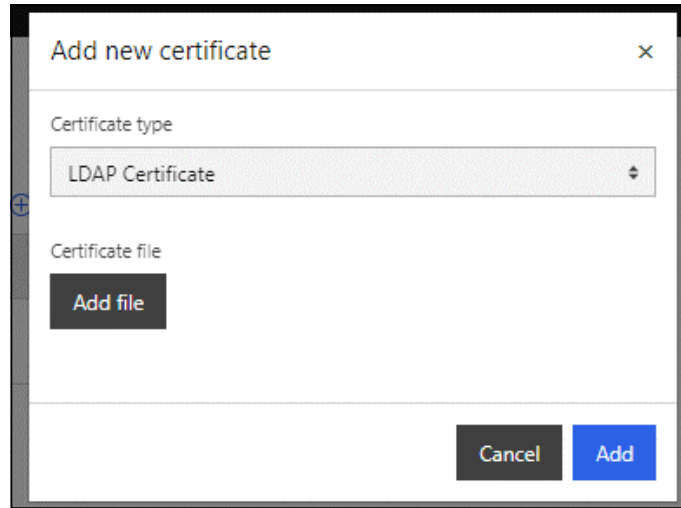
Cancel Generate CSR

The following fields are displayed in this window.

- **Generate type** — A drop-down list provides two options, HTTPS and LDAP certificate. Select one option.
- **Country /Region** — A drop-down list provides the country/region of the user. Specify the certificate's country or region.
- **State** — Enter the name of the state.
- **City** — Enter the name of the city.
- **Company name** — Enter the company name.
- **Company unit** — Enter the company unit.
- **Common name** — Enter the hostname or server IP address.
- **Contact person** — Enter a contact person's name. (optional)
- **Email address** — Enter an email address for the contact person. (optional)
- **Alternate name** — Enter an alternate name for the certificate. Use spaces to separate multiple names.

From the Certificates table, click the upper-right button "Add new certificate" to upload your own certificate. After uploading the certificate file, click "Add" to save the new certificate.

Figure 53: Security Certificates - Add New Certificate



The following fields are displayed in this window.

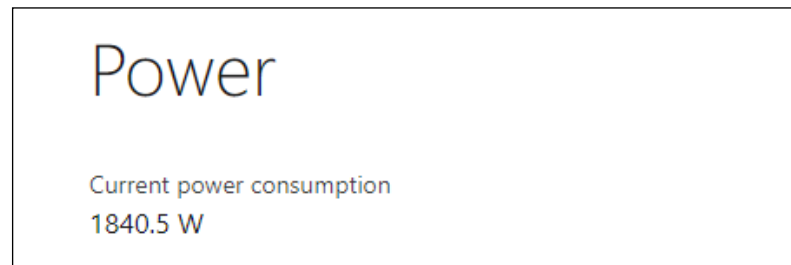
- **Certificate type** — Select the certificate type from the drop-down list; LDAP certificate or CA certificate.
- **Certificate file** — Uploads a new certificate file.

Resource Management

The “Resource management” drop-down menu only has the “Power” option, which enables you to view the current total power consumption.

Power The Power window displays the total power consumption of the machine.

Figure 54: Resource Management - Power



The following field is displayed in this window.

- **Current power consumption** — Displays the total power consumption of the machine.

6

System Event Log (SEL)

This chapter includes the following sections:

- [“SEL Overview” on page 210](#)

SEL Overview

The AGS8200 currently supports generating System Event Log (SEL) entries. SEL generation follows the IPMI SEL specification format (refer to the “Intelligent Platform Management Interface Specification v2.0 rev 1.1, section 41”).

The following table shows the SEL entries currently supported by the AGS8200 BMC.

Table 5: BMC SEL Entries

Event Type Code	Sensor Type	Event Class	Offset	Description	Event Detail Description
01h	N/A	Threshold	00h	Lower non-critical going low.	When a sensor exceeds the threshold value, the SEL log will be sent.
			02h	Lower critical going low.	
			07h	Upper non-critical going high.	
			09h	Upper critical going high.	
6Fh	Event Logging Disabled	N/A	02h	Log Area Reset/Cleared	Sent when executing the “ipmitool sel clear” command.
6Fh	Power Supply	N/A	00h	Presence detected	Sent when PSU plugging/unplugging action occurs.
08h	Fan	Availability State	00h	Absent	Sent when a fan plugging/unplugging action occurs.
08h	Fan	Availability State	01h	Present	
6Fh	Button	N/A	00h	Power button pressed	Sent when the power button is pressed.
6Fh	FRU State	N/A	02h	Activation requested	Sent when the X86 host is powered on.
6Fh	FRU State	N/A	05h	Deactivation requested	Sent when the X86 host is powered off.

