



**SuperServer Automation Assistant  
(SAA)  
Migration Guide**

**Revision 1.0.0**

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## Version History

Date	Rev	Description
Oct-17-2024	1.0.0	1. Created this document.

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# Overview

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SuperServer Automation Assistant (SAA) is a powerful CLI (Command-Line Interface) based utility. It helps IT administrators easily deploy, configure, and update the managed systems from single node to datacenter scale.

This user's guide helps users migrate from SUM, SMCIPMITOOL, and IPMICFG to SAA. It provides examples of command output differences between SUM 2.14.0 and SAA 1.0.0/1.1.0. Additionally, it offers command usage mapping rules for converting SMCIPMITOOL and IPMICFG commands to SAA. It also includes a comparison of SMCIPMITOOL and IPMICFG commands to SAA. It also includes a comparison of SMCIPMITOOL and IPMICFG commands with their SAA equivalents. These references will help users smoothly transition to using SAA in their shell scripts and daily operations.

---

# 1. Command Output Changes in SAA 1.0.0

## 1.1 GetBladeSwitchInfo Command (Renamed from GetSwitchInfo)

This command now supports additional information: "Temperature," "UID," "Initialized," "Power Consumption," "Subnet Mask," "Gateway," "Date and Time," and "User Name."

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
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```

```
Managed system.....10.146.164.9
```

```
[Switch A1]
```

```
=====
```

```
Switch IP.....10.146.175.224
```

```
Switch type.....25G Pass-thru Module
```

```
Module name.....SBM-25G-P10 (P1)
```

```
Switch version.....1.0.0.25
```

```
Power Status.....On
```

```
Status.....Normal
```

```
Temperature.....46 36
```

```
UID.....Disabled
```

```
Initialized.....OK
```

```
Power Consumption....25W
```

```
Subnet Mask.....255.255.0.0
```

```
Gateway.....10.146.0.250
```

```
Date and Time.....01-09-1970 05:31:17
```

```
User Name.....ADMIN
```

```
[Switch A2]
```

```
=====
```

```
Switch IP.....10.146.168.143
```

```
Switch type.....10G Ethernet Switch
```

---

```
Module name.....MBM-XEM-002
Switch version.....2.2.1.34
Power Status.....On
Status.....Normal
Temperature.....43 43
UID.....Disabled
Initialized.....OK
Power Consumption....41W
Subnet Mask.....255.255.0.0
Gateway.....10.146.0.250
Date and Time.....01-09-2000 05:31:54
User Name.....ADMIN
```

## 1.2 GetEventLog Command

There are three new features:

The --info option to get the current and total capacity of event log is supported.

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
Total Entries:                111
SEL Version:                   1.5
Free Space:                    65535 bytes
Recent Entry Added:            2024/08/20 01:48:18
Recent Entry Erased:           2024/08/16 19:35:21
Number of alloc units:         4096
Alloc unit size:               20 bytes
Number of free alloc unit: 3985
Largest free blk:              3985
Max record size:               20
Get/Set SEL Time:              2024/08/20 02:29:41
```



---

The --year, --month, and --day options to filter SEL entries by specific time frame are now supported.

```
$ ./saa -i 10.184.30.115 -u ADMIN -p ADMIN -c GetEventLog
```

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
```

```
Event:1 Time:08/14/2024 08:19:10 Type:System
```

```
Assertion: #0FF (System)| Event = Dedicated LAN Link Up
```

```
Event:2 Time:08/14/2024 08:19:40 Type:Physical Security (Chassis Intrusion)
```

```
Assertion: Chassis Intru| Event = undefined
```

```
Event:3 Time:08/14/2024 08:49:48 Type:System
```

```
Assertion: #0FF (System)| Event = System NIC (1) Link Up
```

```
Event:4 Time:08/14/2024 12:00:15 Type:System
```

```
Assertion: #0FF (System)| Event = Dedicated LAN Link Down
```

```
Event:5 Time:08/14/2024 12:00:17 Type:System
```

```
Assertion: #0FF (System)| Event = Dedicated LAN Link Up
```

```
Event:6 Time:08/16/2024 16:27:13 Type:System
```

```
Assertion: #0FF (System)| Event = Dedicated LAN Link Down
```

```
Event:7 Time:08/16/2024 16:27:15 Type:System
```

```
Assertion: #0FF (System)| Event = Dedicated LAN Link Up
```

```
$ ./saa -i 10.184.30.115 -u ADMIN -p ADMIN -c GetEventLog --day 4
```

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
```

```
Event:6 Time:08/16/2024 16:27:13 Type:System
```

```
Assertion: #0FF (System)| Event = Dedicated LAN Link Down
```

**Event:7 Time:08/16/2024 16:27:15 Type:System**  
**Assertion: #0FF (System)| Event = Dedicated LAN Link Up**

The --info option is now added to system support check since the command does not support all platforms.

```
SuperServer Automation Assistant 1.0.0 (2024/05/19) (ARM64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

*****<<<<ERROR>>>>*****

ExitCode           = 38
Description         = Function is not supported
Program Error Code  = 476.16
Error message:
    Option --info is not supported in this platform.

*****
```

## 1.3 UpdateGPU Command

Support is added to number values for the --item option, and start value of available FW types is reordered the from 1.

Before:

```
SuperServer Automation Assistant 1.0.0 (2024/05/16) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Description
    Updates GPU firmware.

Required Arguments
    --file    <file name>
               Updates the GPU firmware file that matches the FW item types.
    --item    <item name>
```

---

FW item types of GPU firmware:

0 = CEC

1 = FPGA

2 = HGX\_H100

3 = PVC\_IFWI

4 = PVC\_PSCBIN

5 = PVC\_UBB\_CPLD

6 = PVC\_RETIMER

7 = PVC\_AMC

8 = GAUDI\_SPI

9 = GAUDI\_OAM\_CPLD

10 = GAUDI\_RETIMER

11 = GAUDI\_UBB\_CPLD

12 = H100\_FPGA

13 = H100\_HMC

14 = H100\_HMC\_EROT

15 = H100\_FPGA\_EROT

16 = H100\_PCIESWITCH

17 = H100\_PCIESWITCH\_EROT

18 = H100\_GPU

19 = H100\_GPU\_EROT

20 = H100\_NVSWITCH

21 = H100\_NVSWITCH\_EROT

22 = H100\_RETIMER

23 = MGX\_GPU

24 = MI300X

After:

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)

Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Description

Updates GPU firmware.

**Required Arguments**

**--file**     **<file name>**

---

**Updates the GPU firmware file that matches the FW item types.**

**--item <item name>**

**FW item types of GPU firmware:**

**1 = CEC**

**2 = FPGA**

**3 = HGX\_H100**

**4 = PVC\_IFWI**

**5 = PVC\_PSCBIN**

**6 = PVC\_UBB\_CPLD**

**7 = PVC\_RETIMER**

**8 = PVC\_AMC**

**9 = GAUDI\_SPI**

**10 = GAUDI\_OAM\_CPLD**

**11 = GAUDI\_RETIMER**

**12 = GAUDI\_UBB\_CPLD**

**13 = H100\_FPGA**

**14 = H100\_HMC**

**15 = H100\_HMC\_EROT**

**16 = H100\_FPGA\_EROT**

**17 = H100\_PCIESWITCH**

**18 = H100\_PCIESWITCH\_EROT**

**19 = H100\_GPU**

**20 = H100\_GPU\_EROT**

**21 = H100\_NVSWITCH**

**22 = H100\_NVSWITCH\_EROT**

**23 = H100\_RETIMER**

**24 = MGX\_GPU**

**25 = MI300X**

**26 = ONBOARD\_RETIMER**

## 1.4 CheckAssetInfo Command

Display errors of fields indicating “Data Width” and “Bus Width” are corrected from “GB” to “bits”.

---

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)  
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

System

=====

Product Name:  
Product PartModel Number:  
Version: 0123456789  
Serial Number:  
UUID: 50405609-0628-3312-2797-412510185523

Baseboard

=====

Product Name: X14SBW-F/-TF  
Version: 0123456789  
Serial Number: 0123456789

CPU

===

[CPU(1)]  
Processor Architecture: x86  
Manufacturer: Intel(R) Corporation  
Version: Intel(R) Xeon(R) 6740E  
Family: Intel® Xeon® processor  
CPU ID: f3 06 0a 00 ff fb eb bf  
Current Speed: 2400 MHz  
Total Cores: 96  
Enabled Cores: 96  
Thread Count: 96  
TDP Watts: 250

Memory

=====

[MEM(1)]  
Locator: DIMMA1  
Memory Type: DRAM

Manufacturer: Micron Technology  
Manufacturing Date (YY/WW): 22/03  
Device Type: DDR5  
Serial Number: 802C0F22033420958C  
Part Number: MTC20F2085S1RC48BA1  
Data Width: 64 **bits**  
Bus Width: 80 **bits**  
Current Speed: 4800 MT/s  
Size: 32768 MB  
Error Correction: MultiBitECC  
Module Type: RDIMM  
Rank: 2

## 1.5 GetPowerStatus Command

This command retrieves data on peak power consumption, peak time and average power for hourly, daily, and weekly periods.

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)  
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Managed system.....192.168.34.56

Power status.....On

### **Power Consumption**

#### **Last Hour**

**Average Usage...58.583333 (W)**

**Max Peak.....114 (W)**

**Max Peak Time...2024-08-22T08:23:46Z**

**Min Peak.....39 (W)**

**Min Peak Time...2024-08-22T08:23:46Z**

#### **Last Day**

**Average Usage...59.291667 (W)**

**Max Peak.....123 (W)**

**Max Peak Time...2024-08-21T23:48:46Z**

**Min Peak.....27 (W)**

---

```
Min Peak Time...2024-08-21T08:48:46Z
Last Week
Average Usage...37.071429 (W)
Max Peak.....201 (W)
Max Peak Time...2024-08-20T08:48:46Z
Min Peak.....0 (W)
Min Peak Time...2024-08-15T08:48:46Z
```

## 1.6 GetBackplaneCpldInfo Command

This command removes the backplane model name from the output.

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Managed system.....192.168.34.56
  [Backplane 1]
    Backplane Model.....BPN-NVMe4-217BHQ-S6
    Backplane CPLD 1 ID.....2926
    Backplane CPLD 1 Revision.....01
```

## 1.7 GetBmcInfo Command

This command displays patch version for X14/H14 and later platforms as the fourth field

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Managed system.....192.168.34.56
  BMC UFFN.....BMC_DCSCMAST2600-ROT20-4601MS_20240816_99.73.00.00_STDsp.bin
  BMC type.....AOM-SCM-DC6_RoT2.0_ATEN_AST2600_2_1
  BMC version.....99.73.00.00
  BMC ext. version.....01 00 00 (P)
  BMC build date.....2024/08/16
```

## 1.8 GetCpldInfo Command

This command retrieves unique filename information from local CPLD image files.

```
$ ./saa -c GetCpldInfo --file_only --file CPLD_MBD-X14DBT-B-  
10XXF201_20240307_F2.01.06_STDsp.bin
```

SuperServer Automation Assistant 1.0.0 (2024/05/16) (x86\_64)

Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Local CPLD image file...../home/sean/fw/X14\_CPLD/CPLD\_MBD-X14DBT-B-  
10XXF201\_20240307\_F2.01.06\_STDsp.bin

**CPLD UFFN.....CPLD\_MBD-X14DBT-B-10XXF201\_20240307\_F2.01.06\_STDsp.bin**

CPLD version.....F2.01.06

FW image.....Signed

Signed Key.....RoT

## 1.9 GetBmcCfg Command

The --sample\_file option is only supported on X13/H13 and later platforms. The error message for checking platform support of the --sample\_file option has been improved. The exit code has been changed from 153 (IPMI execution on non-supported device) to 38 (Function is not supported).

```
$ ./saa -i 192.168.34.56 -u ADMIN -p ADMIN -c GetBmcCfg --file BmcCfg.xml --overwrite --  
sample_file config_format.xml
```

Before:

Supermicro Update Manager (for UEFI BIOS) 2.14.0-p6 (2024/08/15) (x86\_64)

Copyright(C) 2013-2024 Super Micro Computer, Inc. All rights reserved.

\*\*\*\*\*<<<<ERROR>>>>\*\*\*\*\*

**ExitCode** = 153

**Description** = IPMI execution on non-supported device

Program Error Code = 464.9



Error message:

Option --sample\_file is only supported for X13/H13 and later platforms.

\*\*\*\*\*

After:

SuperServer Automation Assistant 1.0.0 (2024/05/16) (x86\_64)

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\*\*\*\*\*<<<<ERROR>>>>\*\*\*\*\*

**ExitCode** = 38

**Description** = Function is not supported

Program Error Code = 464.10

Error message:

Option --sample\_file is only supported for X13/H13 and later platforms.

\*\*\*\*\*

## 1.10 GetTpInfo Command

This command supports the display of new fields: BpnId and TwinType information.

TP XML:

```
<?xml version="1.0"?>
<TwinProCfg>
  <CurrentNodeInfo Action="Change" Node="1">
    <!--Supported Action:None/Change-->
    <!--NodeId is current node ID-->
    <Information>
      <BackPlaneRevision>1.02</BackPlaneRevision>
      <!--BPN Revision-->
      <BpnId>0</BpnId>
      <!--BPN ID-->
      <TwinType>B3</TwinType>
      <!--TwinType-->
```

```
<MCU1Version>0.07</MCU1Version>
<!--MCU1 Version-->
<MCU2Version>0.07</MCU2Version>
<!--MCU2 Version-->
</Information>
</CurrentNodeInfo>
</TwinProCfg>
```

## 1.11 CheckOobSupport Command

This command supports extended IPMI version, including Manufacturer ID, Product ID, and Auxiliary Firmware Revision.

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)  
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

[KEY]

Node Product Key Format.....JSON  
Node Product Key Activated.....SFT-DCMS-SINGLE  
    SFT-DCMS-SVC-KEY Activated...No  
    SFT-SDDC-SINGLE Activated....No  
Feature Toggled On.....Yes

[BMC]

BMC FW Version.....99.73.00.00  
**IPMI Version.....2.0**  
**Manufacturer ID.....7C 2A 00**  
**Product ID.....4B 1D 00**  
**Auxiliary Firmware Revision.....00 01 00 00**  
BMC Supports OOB BIOS Config.....Yes  
BMC Supports OOB DMI Edit.....Yes

[BIOS]

Board ID.....1D4B

BIOS Build Date.....2024/07/08

BIOS Version.....1.0

BIOS Supports OOB BIOS Config....Yes

BIOS Supports OOB DMI Edit.....Yes

[SYSTEM]

System Supports RoT Feature.....Yes

## 1.12 BmcRotManage Command

Error codes and messages have been updated:

### ERROR code changes

Old Error Code	New Error Code
495.4	809.2
495.10	809.3
495.17	809.4
495.20	809.6
495.18	809.7

495.16	809.8
495.15	809.9
495.9	809.10
495.6	809.11

**ERROR message examples**

Before:

```
Supermicro Update Manager (for UEFI BIOS) 2.14.0 (2024/02/15) (x86_64)
Copyright(C) 2013-2024 Super Micro Computer, Inc. All rights reserved.

*****<<<<ERROR>>>>*****

ExitCode                = 38
Description              = Function is not supported
Program Error Code       = 495.4
Error message:
    BmcRotManage does not on this platform.

*****
```

After:

```
SuperServer Automation Assistant 1.0.0 (2024/05/16) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
```

\*\*\*\*\*<<<<ERROR>>>>\*\*\*\*\*

ExitCode = 38

Description = Function is not supported

Program Error Code = **809.2**

Error message:

**BmcRotManage is not supported on this platform.**

\*\*\*\*\*

Before:

Supermicro Update Manager (for UEFI BIOS) 2.14.0 (2024/02/15) (x86\_64)

Copyright(C) 2013-2024 Super Micro Computer, Inc. All rights reserved.

\*\*\*\*\*<<<<ERROR>>>>\*\*\*\*\*

ExitCode = 38

Description = Function is not supported

Program Error Code = **495.17**

Error message:

**BmcRotManage does not on this platform.**

\*\*\*\*\*

After:

SuperServer Automation Assistant 1.0.0 (2024/05/16) (x86\_64)

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---

\*\*\*\*\*<<<<ERROR>>>>\*\*\*\*\*

ExitCode = 38

Description = Function is not supported

Program Error Code = **809.4**

Error message:

**BmcRotManage is not supported on this platform.**

\*\*\*\*\*

---

## 2. Command Output Changes in SAA 1.1.0

### 2.1 GetFruInfo Command

This command supports additional information, including FRU version and FRU size.

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
```

```
FRU information [Version=00.01]
```

```
=====
```

```
  [BMC, ID=0, Size=256 bytes]
```

```
    Chassis Type (CT): 01
```

```
    Chassis Part Number (CP):
```

```
    Chassis Serial Number (CS):
```

```
    Board mfg. Date/Time (BDT): 2021/08/30 18:01
```

```
    Board Manufacturer Name (BM): Supermicro
```

```
    Board Product Name (BPN):
```

```
    Board Serial Number (BS): WM218S011157
```

```
    Board Part Number (BP):
```

```
    Product Manufacturer (PM):
```

```
    Product Name (PN):
```

```
    Product Part/Model Number (PPM):
```

```
    Product Version (PV):
```

```
    Product Serial Number (PS):
```

```
    Product Asset Tag (PAT):
```

### 2.2 GetGpuLog Command

This command supports downloading logs from MI300X system using the --item option.

```
$ ./saa -i 192.168.34.56 -u ADMIN -p PASSWORD -c GetGpuLog --item MI300X --file
gpu_log.tgz
```

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)  
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

**Creating the GPU Log file...**

.....  
.....  
.....  
.....  
.....

...

.....

**The GPU Log download file is ready.**

**File "gpu\_log.tgz" is created.**

## 2.3 GetGpuInfo Command

This command supports chassis UBB information for NVIDIA HGX H100 systems.

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)  
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HGX information

=====

**[UBB (1)]**

<b>Name</b>	<b>: GPU Baseboard</b>
<b>Model</b>	<b>: HGX_H100</b>
<b>Manufacturer</b>	<b>: NVIDIA</b>
<b>Serial Number</b>	<b>: 1664922651034</b>
<b>Part Number</b>	<b>: 935-24287-0000-000</b>
<b>Chassis Type</b>	<b>: Zone</b>

**[GPU SXM (1)]**

Location	: 1
Model	: H100 80GB HBM3
Serial Number	: 1655022001438
Part Number	: 2330-885-A1



---

Firmware Version	: 96.00.99.00.01
PCIe Type	: Gen5
Max PCIe Type	: Gen5
Lanes In Use	: 16
Max Lanes	: 16
Temperature(C)	: 44 degreeC
[GPU SXM (2)]	
Location	: 2
Model	: H100 80GB HBM3
Serial Number	: 1655022002786
Part Number	: 2330-885-A1
Firmware Version	: 96.00.99.00.01
PCIe Type	: Gen5
Max PCIe Type	: Gen5
Lanes In Use	: 16
Max Lanes	: 16
Temperature(C)	: 41 degreeC

This command displays the MI300X temperature banner for MI300X systems.

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)	
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.	
<b>[MI300X System Temperature]</b>	
[HBM]	
Reading Temperature	: 55 degreeC
HBM 1 Temperature	: 51 degreeC
HBM 2 Temperature	: 53 degreeC
HBM 3 Temperature	: 49 degreeC
HBM 4 Temperature	: 54 degreeC
HBM 5 Temperature	: 55 degreeC
HBM 6 Temperature	: 49 degreeC
HBM 7 Temperature	: 49 degreeC

HBM 8 Temperature	: 50 degreeC
[FPGA]	
Reading Temperature	: 32 degreeC
[PLX]	
Reading Temperature	: 54 degreeC
PLX 1 Temperature	: 54 degreeC
PLX 2 Temperature	: 50 degreeC
PLX 3 Temperature	: 48 degreeC
PLX 4 Temperature	: 50 degreeC
PLX 5 Temperature	: 33 degreeC
PLX 6 Temperature	: 33 degreeC

For in-band usage, the exit code has been updated from 5 (Missing option) to 38 (Function is not supported), and the error code has been changed from "MissingOption" to "FunctionIsNotSupported."

Before:

```

SuperServer Automation Assistant 1.0.0 (2024/05/16) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Managed system.....localhost

*****<<<<ERROR>>>>*****

ExitCode           = 5
Description        = Missing option
Program Error Code = 437.7
Error message:
    Options [ -l Redfish_HI ], [ -u ] and [ -p ] are required for in-band
    usage on this platform.

*****

```

After:

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)

Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Managed system.....localhost

\*\*\*\*\*<<<<ERROR>>>>\*\*\*\*\*

ExitCode = 38

Description = Function is not supported

Program Error Code = 427.26

Error message:

Options [ -l Redfish\_HI ], [ -u ] and [ -p ] are required for in-band  
usage on this platform.

\*\*\*\*\*

## 2.4 UpdateGpu Command

For in-band usage, the exit code updated from 5 (Missing option) to 38 (Function is not supported), and the error code has been changed from "MissingOption" to "FunctionIsNotSupported."

Before:

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)

Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Managed system.....localhost

\*\*\*\*\*<<<<ERROR>>>>\*\*\*\*\*

```
ExitCode                = 5
Description              = Missing option
Program Error Code       = 597.67
Error message:
    Options [ -l Redfish_HI ], [ -u ] and [ -p ] are required for in-band
    usage on this platform.

*****
```

After:

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

*****<<<<ERROR>>>>*****

ExitCode                = 38
Description              = Function is not supported
Program Error Code       = 597.110
Error message:
    Options [ -l Redfish_HI ], [ -u ] and [ -p ] are needed for in-band
    usage on this platform.

*****
```

## 2.5 GetSystemInfo Command

This command retrieves the Supermicro Redfish version.

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
....
Managed system.....192.168.34.56
IPv4.....192.168.34.56
```

```
BMC MAC address.....7C:C2:55:E2:D5:F1
Firmware revision.....00.00.27.01
Firmware build time.....2024/08/13
BIOS version.....1.0
BIOS build time.....08/13/2024
CPLD version.....20.19.06
Redfish version.....1.11.0
```

**Supermicro Redfish version..RF1.11-00.00**

## 2.6 GetHostDump Command

When using the --action DeleteDump option, a command completion message will be displayed.

```
$ ./saa -l 192.168.34.56 -u ADMIN -p ADMIN -c GetHostDump --action DeleteDump
```

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
.....
Done.
```

## 2.7 GetMaintenEventLog Command

This command supports severity and category information.

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
.....
Event 1: 2024/08/22 03:17:13
Severity: OK
Description: [MEL-0130] Web logout was successful.
Source: Web ADMIN(ADMIN) 10.181.92.123
Category: Account
```

---

## 2.8 GetMotherboardFpgaInfo and UpdateMotherboardFpga Commands

This command supports local image version for the GetMotherboardFpgaInfo command using the --file and --file\_only options.

```
$ ./saa -c GetMotherboardFpgaInfo --file_only --file FPGA_MBD-X14SBHM-40XXF374_20240624_F3.74.31_STDsp.bin
```

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
```

```
Local FPGA image file.....FPGA_MBD-X14SBHM-
40XXF374_20240624_F3.74.31_STDsp.bin
FPGA version.....F3.74.31
```

This command supports local image version for the UpdateMotherboardFpga command.

```
$ ./saa -c UpdateMotherboardFpga --file FPGA_MBD-G1SMH-10XX1D10_20231205_F2.00.8C_STDsp.bin -i 10.135.123.123 -u ADMIN -p ADMIN --reboot
```

```
SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64)
Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.
```

```
Managed system.....10.135.123.123
Motherboard FPGA Version.....F2.00.8C
Local FPGA image file.....FPGA_MBD-G1SMH-10XX1D10_20231205_F2.00.8C_STDsp.bin
FPGA version.....F2.00.8C
```

```
Powering off target system.....
```

```
.....
.....
.....
```



```

<BmcCfg>
  <?BMC_CONFIG_SOURCE BMC configuration for In-Band Usage?>
  <StdCfg Action="Change">
    <UserManagement Action="Change">
      <Information>
        <MaximumAvailableIDs>16</MaximumAvailableIDs>
        <TotalIDEnabled>1</TotalIDEnabled>
      </Information>
      <Configuration>
        <User UserID="2">
          <Access>Enable</Access>
          <Name><![CDATA[ADMIN]]></Name>
          <!--String value; length limit 4-15 characters-->
          <!--Will delete user if no value is assigned.-->
          <!--UserName supports the following characters:-->
          <!--a-z, A-Z, 0-9 and special characters like !$%&()*+./<=>=?@[\\^_`{}|-~-->
          <!--Special characters + and - are not allowed as the first character.-->
          <Password><![CDATA[]]></Password>
          <PrivilegeLimit>Administrator</PrivilegeLimit>
          <SOLAccess>Enable</SOLAccess>
        </User>
      </Configuration>
    </UserManagement>
  </StdCfg>
</BmcCfg>

```

In the fields under IPMI LAN table, including IPprotocolStatus, HostName, VLAN\_Enable and VLAN\_ID, the comments have been enhanced.

BMC Configuration XML:

```

<?xml version="1.0"?>
<BmcCfg>
  <OemCfg Action="Change">
    <LAN Action="Change">

```



```
<Information>
  <SpeedMbps>1000</SpeedMbps>
  <Duplex>Full Duplex</Duplex>
</Information>
<Configuration>
  <IPProtocolStatus>Dual</IPProtocolStatus>
  <!--IPv4/IPv6/Dual-->
  <!--The value shall indicate which IP protocol can be accessed.-->
  <!--Will be applied in OOB usage only when Redfish is available.-->
  <LanMode>Failover</LanMode>
  <MacAddr>3C:EC:EF:98:7A:D7</MacAddr>
  <Link>Auto Negotiation</Link>
  <HostName>SUMTest</HostName>
  <!--BMC host name-->
  <!--string value; length limit = 63 characters-->
  <!--Will be applied in OOB usage only when Redfish is available.-->
  <?Note Will be skipped in multiple system usage without --individually option.?>
  <CommunityString>public</CommunityString>
  <VLAN_Enable>Disable</VLAN_Enable>
  <!--Enable/Disable-->
  <!--Changing this setting may cause the LAN to be unavailable.-->
  <!--Will be applied in OOB usage only when Redfish is available.-->
  <VLAN_ID>0</VLAN_ID>
  <!--Integer value is in [1-4094].-->
  <!--0 and 4095 for special purposes.-->
  <!--When VLAN is enabled, 0 is prohibited.-->
  <!--When VLAN is disabled, value will not be changed.-->
  <!--Changing this setting may cause the LAN to be unavailable.-->
  <!--Will be applied in OOB usage only when Redfish is available.-->
  <RMCP_Port>623</RMCP_Port>
</Configuration>
</LAN>
</OemCfg>
</BmcCfg>
```

---

Support the USB connection switching in BMC Configuration.

BMC Configuration XML:

```
<BmcCfg>
  <OemCfg Action="Change">
    <HostInterface Action="Change">
      <!-- Supported Action:None/Change -->
      <Information>
        <HostIpAddress>169.254.3.1</HostIpAddress>
        <ServiceIpAddress>169.254.3.254</ServiceIpAddress>
      </Information>
      <Configuration>
        <!-- Configuration for enable or disable host interface with IPMI -->
        <HostInterfaceControl>Enable</HostInterfaceControl>
        <!-- Enable/Disable -->
        <UsbConnection>RNDIS</UsbConnection>
        <!-- RNDIS/CDC_ECM -->
      </Configuration>
    </HostInterface>
  </OemCfg>
</BmcCfg>
```

## 2.10 RawCommand Command

When an IPMI command returns a non-zero completion code, an exception will be raised to indicate an error. The example below demonstrates how an exception is raised when an unrecognized IPMI command is sent to the BMC.

Before:

```
$ ./saa -i 192.168.34.56 -u ADMIN -p ADMIN -c RawCommand --raw "0x08 0x08 0x08
0x08"(Invalid IPMI command)
```

---

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**C1**

**(Invalid Command. Used to indicate an unrecognized or unsupported command.)**

After:

\$ ./saa -i 192.168.34.56 -u ADMIN -p ADMIN -c RawCommand --raw "0x08 0x08 0x08 0x08"

(Invalid IPMI command)

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)

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\*\*\*\*\*<<<<ERROR>>>>\*\*\*\*\*

**ExitCode** = 87

**Description** = IPMI standard error.

**Program Error Code** = 439.8

**Error message:**

**C1 (Invalid Command. Used to indicate an unrecognized or unsupported command.)**

\*\*\*\*\*

---

## 3. Command Output Changes from SMCIPMITOOL/IPMICFG to SAA

By default, SAA includes banner information and progress in its output, but they can be suppressed by using the `--no_banner` and `--no_progress` options.

### 3.1 BMC LAN Management

The following example demonstrates how an SAA feature can map to the same feature with both SMCIPMITOOL and IPMICFG tools. These features are supported by SMCIPMITOOL and IPMICFG tools, including BMC configuration LAN interface, MAC, hostname, VLAN and IPv4 address, and they are also supported by the corresponding fields ([LanMode](#), [ShareLan](#), [MacAddr](#), [HostName](#), [VLAN\\_Enable](#), [VLAN\\_ID](#), and [IPAddr](#)) in BMC XML configuration.

SMCIPMITOOL
<b>Cmd usage:</b> SMCIPMITool 192.168.34.56 ADMIN ADMIN ipmi oem lani SMCIPMITool 192.168.34.56 ADMIN ADMIN ipmi lan mac SMCIPMITool 192.168.34.56 ADMIN ADMIN ipmi lan gethostname SMCIPMITool 192.168.34.56 ADMIN ADMIN ipmi lan vlan SMCIPMITool 192.168.34.56 ADMIN ADMIN ipmi lan ip
<b>Cmd output:</b> [ipmi oem lani]  Current LAN interface is [ Failover ]  Supported parameter for setting: 0:Dedicated 1:Shared 2:Failover

---

7:Share-Onboard

8:Failover-Onboard

[ipmi lan mac]

3C:EC:EF:CB:CD:99

[ipmi lan gethostname]

BmcHostname

[ipmi lan vlan]

VLAN : Disable

VLAN Tag: 1

[ipmi lan ip]

192.168.34.56

#### **IPMICFG**

##### **Cmd usage:**

IPMICFG -lani

IPMICFG -m

IPMICFG -hostname

IPMICFG -vlan

##### **Cmd output:**

-lan]

Current LAN interface is [ Failover ]

Supported parameter for setting:

0: Dedicated

1: Shared

2: Failover

7:Share-Onboard

8:Failover-Onboard

[-m]

IP=192.168.34.56

MAC=3C:EC:EF:98:7A:D7

[-hostname]

BmcHostname

[-vlan]

VLAN is now disabled

## SAA

### Cmd usage:

GetBmcLanCfg/ChangeBmcLanCfg commands

### XML output:

Fields in Information section is READ ONLY data <BmcLANCfg>

<LAN Action="Change">

<Information>

<SpeedMbps>1000</SpeedMbps>

<Duplex>Full Duplex</Duplex>

</Information>

<Configuration>

<IPProtocolStatus>Dual</IPProtocolStatus>

<LanMode>Failover</LanMode>

<!--Dedicated/Share/Failover-->

<!--Changing this setting may cause the LAN to be unavailable.-->

<ShareLan>Auto</ShareLan>

<!--Auto/Onboard-->

<!--Changing this setting may cause the LAN to be unavailable.-->

<!--If LanMode is set to Dedicated, ShareLan can only be set to "Auto".-->

<MacAddr>3C:EC:EF:CB:CD:99</MacAddr>

<Link>Auto Negotiation</Link>

<HostName>BmcHostname</HostName>

<CommunityString>public</CommunityString>

<VLAN\_Enable>Disable</VLAN\_Enable>

<VLAN\_ID>1</VLAN\_ID>

<RMCP\_Port>623</RMCP\_Port>

<IPv4 Action="Change">

```
<Configuration>
  <IPAddr>192.168.34.56</IPAddr>
</Configuration>
</IPv4>
</Configuration>
</LAN>
</BmcLANCfg>
```

## 3.2 Virtual Media Management

Take BMC virtual media configuration as an example. The status information output may be formatted differently depending on the information source.

In the case of IPMI, SMCIPMITOOL provides specific information about virtual media (VM), while SAA provides additional details such as VM enabled/disabled status and service port numbers, beyond the mount ISO status.

For Redfish, since the Redfish supports more settings, the information is organized by device ID. The device status remains available under the corresponding device section in the “**Device**” status.

<b>SMCIPMITOOL</b>
<b>Cmd usage:</b> ./SMCIPMITool 192.168.34.56 ADMIN ADMIN wsiso status
<b>Cmd output:</b> Device 1:Empty device Device 2:Empty device Device 3:Empty device
<b>SAA</b>
<b>Cmd usage:</b> GetVmInfo command
<b>Cmd output:</b> [IPMI]

---

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64) Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

.....

Status: Start to get virtual media information.

.

Managed system.....192.168.34.56

Virtual media status.....Enable

Virtual media port.....623

Virtual Media Device Information

=====

**Device 1: Empty device**

**Device 2: Empty device**

**Device 3: Empty device**

**[Redfish with multiple VM devices support]**

SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86\_64)

Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.

Status: Start to get virtual media information.

Managed system.....192.168.34.56

Virtual media status.....Enable

Virtual media port.....623

Virtual Media Device Information

=====

**Device 1**

=====

**Device status: Unmounted**

Media type: N/A

Connection setting: NotConnected

Image: N/A



---

```
SSL certificate verified: N/A
Self-signed certificate accepted: N/A
UserName: N/A
```

#### Device 2

```
=====
```

##### Device status: Unmounted

```
Media type: N/A
Connection setting: NotConnected
Image: N/A
SSL certificate verified: N/A
Self-signed certificate accepted: N/A
UserName: N/A
```

#### Device 3

```
=====
```

##### Device status: Unmounted

```
Media type: N/A
Connection setting: NotConnected
Image: N/A
SSL certificate verified: N/A
Self-signed certificate accepted: N/A
UserName: N/A
```

## 3.3 FAN Mode Management

When configuring FAN mode, the output from SAA may differ slightly different from SMCIPMITool/IPMICFG. To accurately extract the desired information, it's essential to identify the correct the key word or anchor string.

For example, to obtain the current FAN mode using SAA, revise the anchor string to "while Current FanMode is "".". To retrieve a list of all supported FAN modes, revise the anchor string to "Mode: Type." When extracting relevant data, consider the space before the fan mode.

IPMICFG
---------

<b>Cmd usage</b>
./IPMICFG-Linux.x86_64 -fan
<b>Cmd output</b>
Current Fan Speed Mode is [ Optimal Mode ]
Supported Fan modes:
0:Standard
1:Full
2:Optimal
4:Heavy IO
<b>SAA</b>
<b>Cmd usage</b>
<b>Getfanmode command</b>
<b>Cmd output</b>
Current FanMode is " <b>Optimal</b> ".
All Available Fan Mode are:
Mode: Type
<b>0: Standard</b>
<b>1: Full</b>
<b>2: Optimal</b>
<b>4: Heavy IO</b>

## 3.4 BMC self-test status

This example shows how field and value mappings are used to translate status description. The original command output lists a field-value pair with the self-test result. However, in SAA, the result is presented as a more descriptive text.

<b>IPMICFG</b>
<b>Cmd usage</b>
./IPMICFG-Linux.x86_64 -selftest
<b>Cmd output</b>
Selftest: Passed.
<b>SAA</b>
<b>Cmd usage</b>

<b>CheckSelfTest command</b>
<b>Cmd output</b> <b>Self Test is passed</b>

### 3.5 BMC Version Information

Another example is BMC version. IPMICFG provides specific details about BMC version, while SAA provides a more comprehensive range of BMC information rather than just version. To extract BMC version information from SAA, simply modify the anchor string to "BMC version....."

<b>IPMICFG</b>
<b>Cmd usage</b> ./IPMICFG-Linux.x86_64 -ver
<b>Cmd output</b> Firmware Version: 00.23.37
<b>SAA</b>
<b>Cmd usage</b> <b>GetBmcInfo command</b>
<b>Cmd output</b> SuperServer Automation Assistant 1.1.0 (2024/08/14) (x86_64) Copyright(C) 2024 Super Micro Computer, Inc. All rights reserved.  Managed system.....localhost BMC type.....X12_RoT_ATEN_AST2500 <b>BMC version.....00.23.37</b> BMC ext. version.....01 00 00 (P) BMC build date.....2021/06/28

---

## 4. Usage Mapping from SMCIPMITOOL to SAA

SMCIPMITOOL is for OOB use only.

The following SAA command usage mapping is for OOB.

Feature	SNMP Trap Receiver
SMCIPMITool Usage	trap
SAA Usage	AlertManage Use separate executable located at GO_SNMP\AlertServer in SAA release package

Feature	Power supply PMBus health
SMCIPMITool Usage	pminfo [<busId> <SlaAddr>]
SAA Usage	GetPsuInfo

Feature	Power supply FRU health
SMCIPMITool Usage	psfruinfo [<busId> <SlaAddr>]
SAA Usage	GetPsFruInfo

Feature	Shell mode
SMCIPMITool	shell

Usage	
SAA Usage	Shell

Feature	List all or find available commands
SMCIPMITool Usage	list [keyword]
SAA Usage	In shell mode [shell]# help

Feature	SIM(WA) Virtual Media
SMCIPMITool Usage	vmwa
SAA Usage	In shell mode [shell]# Vmshell --action <devlist   dev1stop   dev2stop   log> [shell]# Vmshell --action dev1drv --index <index> [shell]# Vmshell --action dev2iso --file <filename> [shell]# Vmshell --action Status [--dev_id <dev_id>]

Feature	Find IPMI device from local or IP range
SMCIPMITool Usage	find [<Start> <End> <netMask>]
SAA Usage	FindBmcDevices --start_ip <Start> --end_ip <End> --netmask <netMask>

Feature	Config information displayed on prompt
SMCIPMITool	prompt <type> <on off>

Usage	
SAA Usage	Prompt --action Get --item <type> Prompt --action Set --item <type> <--enable   --disable>

Feature	SOL Commands
SMCIPMITool Usage	sol
SAA Usage	sol --action <Activate   Deactivate> sol --action GetInfo sol --action Set [--bitrate <bitrate>] [--retryCount <retry count>] [--retryInterval <retry interval>]

Feature	iKVM remote screen capture(X9 or later) ext:png jpg
SMCIPMITool Usage	rsc [filename.ext]
SAA Usage	RemoteScreenshot --file <filename.png>

Feature	iKVM remote keyboard operation(X9 or later)
SMCIPMITool Usage	rko [filepath]
SAA Usage	RemoteKeyboard --file <filepath>

Feature	Display processor and memory information
SMCIPMITool Usage	hwinfo

---

SAA Usage	CheckAssetInfo
-----------	----------------

Feature	Display current blade/node position in CMM
SMCIPMITool Usage	bladePosition
SAA Usage	GetCmmInfo --showall

Feature	Display cmm information which current blade located
SMCIPMITool Usage	bladeCmmInfo
SAA Usage	GetCmmInfo --showall

Feature	MicroBlade summary
SMCIPMITool Usage	microblade summary
SAA Usage	BladeSummary

Feature	MicroBlade switch infos
SMCIPMITool Usage	microblade switch info      [switch index]
SAA Usage	1. GetBladeSwitchInfo 2. GetBladeSwitchInfo --dev_id A1

Feature	MicroBlade switch Username
---------	----------------------------

SMCIPMITool Usage	microblade switch username <switch index> [username]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetCmmCfg --file &lt;file&gt;</li> <li>2. Find XML path: /CmmCfg/OemCfg/SwitchList/Configuration/Switch[DevId]/SwitchUser/User/UserName</li> <li>3. Modify the value</li> <li>4. ChangeCmmCfg --file &lt;file&gt;</li> </ol>

Feature	MicroBlade switch LAN IP
SMCIPMITool Usage	microblade switch lan ip <switch index> [ip]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetCmmCfg --file &lt;file&gt;</li> <li>2. Find XML path: /CmmCfg/OemCfg/SwitchList/Configuration/Switch[DevId]/Network/IPAddress</li> <li>3. Modify the value</li> <li>4. ChangeCmmCfg --file &lt;file&gt;</li> </ol>

Feature	MicroBlade switch LAN IP Mode
SMCIPMITool Usage	microblade switch lan dhcp <switch index> [status]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetCmmCfg --file &lt;file&gt;</li> <li>2. Find XML path: /CmmCfg/OemCfg/SwitchList/Configuration/Switch[DevId]/Network/IPSrc</li> <li>3. Modify the value</li> <li>4. ChangeCmmCfg --file &lt;file&gt;</li> </ol>



Feature	MicroBlade switch LAN Mask
SMCIPMITool Usage	microblade switch lan mask <switch index> [netMask]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetCmmCfg --file &lt;file&gt;</li> <li>2. Find XML path: /CmmCfg/OemCfg/SwitchList/Configuration/Switch[DevId]/Network/Subnet mask</li> <li>3. Modify the value</li> <li>4. ChangeCmmCfg --file &lt;file&gt;</li> </ol>

Feature	MicroBlade switch LAN Gateway
SMCIPMITool Usage	microblade switch lan gateway <switch index> [gateway]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetCmmCfg --file &lt;file&gt;</li> <li>2. Find XML path: /CmmCfg/OemCfg/SwitchList/Configuration/Switch[DevId]/Network/Gateway</li> <li>3. Modify the value</li> <li>4. ChangeCmmCfg --file &lt;file&gt;</li> </ol>

Feature	MicroBlade switch Time
SMCIPMITool Usage	microblade switch getTime <switch index>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBladeSwitchInfo</li> <li>2. GetBladeSwitchInfo --dev_id A1</li> </ol>

Feature	MicroBlade PSU Infos
SMCIPMITool Usage	microblade psu info [psu index]
SAA Usage	BladePsuManage --action GetBladePsuInfo

Feature	MicroBlade PSU fan mode
SMCIPMITool Usage	microblade psu fanMode [Auto:0   Manual:1]
SAA Usage	1. BladePsuManage --action GetFanMode 2. BladePsuManage --action SetFanMode --value <value>

Feature	MicroBlade PSU fan speed
SMCIPMITool Usage	microblade psu fanSpeed [Index (1 to 10)]
SAA Usage	1. BladePsuManage --action GetFanSpeed 2. BladePsuManage --action SetFanSpeed --value <value>

Feature	MicroBlade CMM fru
SMCIPMITool Usage	microblade fru cmm
SAA Usage	GetFruInfo

Feature	MicroBlade Middle Plane fru
SMCIPMITool	microblade fru midPlane

Usage	
SAA Usage	GetFruInfo --dev_id 2

Feature	MicroBlade switch fru
SMCIPMITool Usage	microblade fru switch
SAA Usage	GetFruInfo --dev_ID <Device ID> 3 = CMM Switch(A1) 4 = CMM Switch(A2) 5 = CMM Switch(B1) 6 = CMM Switch(B2)

Feature	MicroBlade power supply fru
SMCIPMITool Usage	microblade fru psu
SAA Usage	GetFruInfo --dev_ID <Device ID> 7 = CMM PSU(A1) 8 = CMM PSU(A2) 9 = CMM PSU(A3) 10 = CMM PSU(A4) 11 = CMM PSU(B1) 12 = CMM PSU(B2) 13 = CMM PSU(B3) 14 = CMM PSU(B4) 15 = CMM FAN(1) 16 = CMM FAN(2) 17 = CMM FAN(3)

	18 = CMM FAN(4)
--	-----------------

Feature	MicroBlade enclosure power consumption
SMCIPMITool Usage	microblade powerConsumption
SAA Usage	BladePsuManage --action GetBladePsuConsumption

Feature	Sensor status
SMCIPMITool Usage	ipmi sensor [--full]
SAA Usage	CheckSensorData

Feature	Power status
SMCIPMITool Usage	ipmi power status
SAA Usage	GetPoserStatus

Feature	Power up system
SMCIPMITool Usage	ipmi power up
SAA Usage	SetPowerAction --action up

Feature	Power down system
SMCIPMITool	ipmi power down

Usage	
SAA Usage	SetPowerAction --action down

Feature	Power soft shutdown
SMCIPMITool Usage	ipmi power softshutdown
SAA Usage	SetPowerAction --action softshutdown

Feature	Power reset
SMCIPMITool Usage	ipmi power reset
SAA Usage	SetPowerAction --action reset

Feature	Force a boot device in next boot only
SMCIPMITool Usage	ipmi power bootoption
SAA Usage	SetBootOption --device_type <type>

Feature	Power cycle
SMCIPMITool Usage	ipmi power cycle
SAA Usage	SetPowerAction --action cycle

Feature	Pulse diagnostic interrupt
---------	----------------------------

SMCIPMITool Usage	ipmi power diag
SAA Usage	SendDiagInterrupt

Feature	ACPI status
SMCIPMITool Usage	ipmi acpi
SAA Usage	GetAcpiPowerStatus

Feature	Get/Set IP. Format:###.###.###.###
SMCIPMITool Usage	ipmi lan ip [ip]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcLanCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/IPAddr</li> <li>3. Modify the value</li> <li>4. ChangeBmcLanCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set MAC. Format:##:##:##:##:##:##
SMCIPMITool Usage	ipmi lan mac [mac]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcLanCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcLANCfg/LAN/Configuration/MacAddr</li> <li>3. Modify the value</li> <li>4. ChangeBmcLanCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set gateway. Format:###.###.###.###
SMCIPMITool Usage	ipmi lan gateway [gateway_IP]
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/DefaultGateWayAddr 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Get/Set netmask. Format:###.###.###.###
SMCIPMITool Usage	ipmi lan netmask [netmask]
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/SubNetMask 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Get/Set SNMP destination
SMCIPMITool Usage	ipmi lan snmp [<seq> <ip> [mac] [on/off]]
SAA Usage	1. SnmpManage --action GetStatus 2. SnmpManage --action Off --snmp_id 1 --snmp_ip 127.0.0.1 --snmp_mac 12:34:56:78:9A:BC

Feature	Get/Set SNMP community string
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SMCIPMITool Usage	ipmi lan snmpcomm [community string]
SAA Usage	<ol style="list-style-type: none"> <li>1. SnmpManage --action GetCommunityString</li> <li>2. SnmpManage --action SetCommunityString --community_string public</li> </ol>

Feature	Enable/Disable DHCP
SMCIPMITool Usage	ipmi lan dhcp [enable disable]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcLanCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/IPSrc</li> <li>3. Modify the value</li> <li>4. ChangeBmcLanCfg --file &lt;file&gt;</li> </ol>

Feature	Display/Enable/Disable VLAN
SMCIPMITool Usage	ipmi lan vlan [<enable disable> <tag>]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcLanCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcLANCfg/LAN/Configuration/VLAN_Enable</li> <li>3. Find XML path: /BmcLANCfg/LAN/Configuration/VLAN_ID</li> <li>4. Modify the values</li> <li>5. ChangeBmcLanCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set DNS server (OEM)
SMCIPMITool Usage	ipmi lan dns [<Pri._IP> <Sec._IP>]



SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcLanCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/DNSAddr</li> <li>3. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/DNSAddr2 (If exists)</li> <li>4. Modify the values</li> <li>5. ChangeBmcLanCfg --file &lt;file&gt;</li> </ol>
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Feature	Get/Set IP protocol
SMCIPMITool Usage	ipmi lan protocol [protocol status]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcLanCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcLANCfg/LAN/Configuration/IPProtocolStatus</li> <li>3. Modify the value</li> <li>4. ChangeBmcLanCfg --file &lt;file&gt;</li> </ol>

Feature	List IPv6 static IP address
SMCIPMITool Usage	ipmi lan ipv6 list
SAA Usage	GetBmcLanCfg --file <BMCLANCfg.xml>

Feature	Add IPv6 static IP address to list
SMCIPMITool Usage	ipmi lan ipv6 add <id> <ip> [prefix]
SAA	<ol style="list-style-type: none"> <li>1. GetBmcLanCfg --file &lt;file&gt;</li> </ol>

Usage	2. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"] 3. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"]/Configuration/Address 4. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"]/Configuration/PrefixLength 5. Modify the values 6. ChangeBmcLanCfg --file <file>
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Feature	Clear IPv6 static IP address from list
SMCIPMI Tool Usage	ipmi lan ipv6 clear <id>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"] 3. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"]/Configuration/Address 4. Modify the values 5. ChangeBmcLanCfg --file <file>

Feature	Get/Set IPv6 mode
SMCIPMIToo	ipmi lan ipv6 mode [stateless:0 stateful:1 disabled:2]

l Usage	
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/DynamicIPv6/Configuration/DHCPv6Mode 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Get/Set IPv6 autoconfig
SMCIPMITool Usage	ipmi lan ipv6 autoconfig [off:0 on:1]
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/DynamicIPv6/Configuration/AutoConfiguration 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	IPv6 DNS server setting
SMCIPMITool Usage	ipmi lan ipv6 dns [ip   clear]
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticNameServer 3. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticNameS

	erver2 (If exists) 3. Modify the values 4. ChangeBmcLanCfg --file <file>
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Feature	Display IPv6 duid
SMCIPMITool Usage	ipmi lan ipv6 duid
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/DynamicIPv6/Information/DUID

Feature	Link Status Infos
SMCIPMITool Usage	ipmi lan linkStatus
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/Link

Feature	FRU information
SMCIPMITool Usage	ipmi fru
SAA Usage	1. GetFruInfo 2. ChangeFruInfo --item <item name> --value <assignment value> CT = Chassis Type CP = Chassis Part Number CS = Chassis Serial Number BDT = Board Mfg. Date/Time ("YYYY/MM/DD HH:MM")

	<p>BM = Board Manufacturer</p> <p>BPN = Board Product Name</p> <p>BS = Board Serial Name</p> <p>BP = Board Part Number</p> <p>PM = Product Manufacturer</p> <p>PN = Product Name</p> <p>PPM = Product Part/Model Number</p> <p>PV = Product Version</p> <p>PS = Product Serial Number</p> <p>PAT = Asset Tag</p>
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Feature	Write FRU
SMCIPMITool Usage	ipmi fruw <field> <value>
SAA Usage	<p>ChangeFruInfo --item &lt;item name&gt; --value &lt;assignment value&gt;</p> <p>CT = Chassis Type</p> <p>CP = Chassis Part Number</p> <p>CS = Chassis Serial Number</p> <p>BDT = Board Mfg. Date/Time ("YYYY/MM/DD HH:MM")</p> <p>BM = Board Manufacturer</p> <p>BPN = Board Product Name</p> <p>BS = Board Serial Name</p> <p>BP = Board Part Number</p> <p>PM = Product Manufacturer</p> <p>PN = Product Name</p> <p>PPM = Product Part/Model Number</p> <p>PV = Product Version</p> <p>PS = Product Serial Number</p>

	PAT = Asset Tag
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Feature	Backup FRU information
SMCIPMITool Usage	ipmi frubackup <filename>
SAA Usage	GetFruInfo --file fru_backup.bin --dump

Feature	Restore FRU information
SMCIPMITool Usage	ipmi frurestore <filename>
SAA Usage	RestoreFruInfo --file fru_backup.bin

Feature	Clear chassis Intrusion
SMCIPMITool Usage	ipmi oem clrint
SAA Usage	ChassisIntrusion --action Clear

Feature	MB ID
SMCIPMITool Usage	ipmi oem id
SAA Usage	GetBiosInfo

Feature	On/Off UID LED
SMCIPMITool	ipmi oem uid [on off]

Usage	
SAA Usage	LocateServerUid --action <On   Off>

Feature	Get IPMI host name
SMCIPMITool Usage	ipmi oem gethostname
SAA Usage	BmcHostName --action Get

Feature	Set IPMI host name
SMCIPMITool Usage	ipmi oem sethostname <hostname>
SAA Usage	BmcHostName --action Set --hostname <hostname>

Feature	Configuration backup to binary file (ATEN firmware for X10 and later)
SMCIPMITool Usage	ipmi oem backupcfg <filename>
SAA Usage	GetBmcCfg --file dumped.bin --dump

Feature	Configuration restore from binary file (ATEN firmware for X10 and later)
SMCIPMITool Usage	ipmi oem restorecfg <filename>
SAA Usage	ChangeBmcCfg --file dumped.bin --restore

Feature	Configuration backup to text file (ATEN firmware for X10 and later)
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SMCIPMITool Usage	ipmi oem getcfg <filename>
SAA Usage	GetBmcCfg --file BmcCfg.xml

Feature	Configuration restore from text file (ATEN firmware for X10 and later)
SMCIPMITool Usage	ipmi oem setcfg <filename>
SAA Usage	ChangeBmcCfg --file BmcCfg.xml

Feature	LAN Interface
SMCIPMITool Usage	ipmi oem lani [0 1 2 3 4 5 6 7 8]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcLanCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcLANCfg/LAN/Configuration/LanMode</li> <li>3. Find XML path: /BmcLANCfg/LAN/Configuration/ShareLan (If exists)</li> <li>4. Modify the values</li> <li>4. ChangeBmcLanCfg --file &lt;file&gt;</li> </ol>

Feature	System MAC address
SMCIPMITool Usage	ipmi oem mac
SAA Usage	CheckAssetInfo

Feature	Get/Set http port
SMCIPMITool	ipmi oem portService http [port]



Usage	
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/ServiceEnabling/Configuration/HTTP</li> <li>3. Modify the value</li> <li>4. Find XML path: /BmcCfg/OemCfg/ServicePort/Configuration/HTTP</li> <li>5. Modify the value</li> <li>6. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set https port
SMCIPMITool Usage	ipmi oem portService https [port]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/ServiceEnabling/Configuration/HTTPS</li> <li>3. Modify the value</li> <li>4. Find XML path: /BmcCfg/OemCfg/ServicePort/Configuration/HTTPS</li> <li>5. Modify the value</li> <li>6. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set IKVM port
SMCIPMITool Usage	ipmi oem portService ikvm [port]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/ServiceEnabling/Configuration/IKVM</li> <li>3. Modify the value</li> <li>4. Find XML path: /BmcCfg/OemCfg/ServicePort/Configuration/IKVM</li> <li>5. Modify the value</li> </ol>

	6. ChangeBmcCfg --file <file>
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Feature	Get/Set ssh port
SMCIPMITool Usage	ipmi oem portService ssh [port]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/ServiceEnabling/Configuration/SSH</li> <li>3. Modify the value</li> <li>4. Find XML path: /BmcCfg/OemCfg/ServicePort/Configuration/SSH</li> <li>5. Modify the value</li> <li>6. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set wsman port
SMCIPMITool Usage	ipmi oem portService wsman [port]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/ServiceEnabling/Configuration/WS_Management</li> <li>3. Modify the value</li> <li>4. Find XML path: /BmcCfg/OemCfg/ServicePort/Configuration/WS_Management</li> <li>5. Modify the value</li> <li>6. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Enable/Disable SSL redirection
SMCIPMITool	ipmi oem portService ssl [y/n]

Usage	
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/ServiceEnabling/Configuration/SNMP</li> <li>3. Modify the value</li> <li>4. Find XML path: /BmcCfg/OemCfg/ServicePort/Configuration/SNMP</li> <li>5. Modify the value</li> <li>6. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	List the information
SMCIPMITool Usage	ipmi oem smbpbi gpu info
SAA Usage	-i <IP or host name> -u <username> -p <password> -c GetGpuInfo

Feature	Get/Set SystemLockdown
SMCIPMITool Usage	ipmi oem systemLockdown [on off]
SAA Usage	<ol style="list-style-type: none"> <li>1. [-i &lt;IP or host name&gt; -u &lt;username&gt; -p &lt;password&gt;] -c GetLockdownMode</li> <li>2. -i &lt;IP or host name&gt; -u &lt;username&gt; -p &lt;password&gt; -c SetLockdownMode</li> </ol>

Feature	FW and Bios Infos
SMCIPMITool Usage	ipmi oem summary
SAA Usage	GetSystemInfo

Feature	general file download
SMCIPMITool Usage	ipmi oem generalfiledownload <BMCDownType>
SAA Usage	FILEDOWNLOAD <FILE_ID> <FILE_NAME>

Feature	Perform BMC cold reset
SMCIPMITool Usage	ipmi reset
SAA Usage	TimedBmcReset --immediate

Feature	Perform BMC factory default
SMCIPMITool Usage	ipmi fd <option>
SAA Usage	option 1. LoadDefaultBmcCfg --preserve_user_cfg option 2. LoadDefaultBmcCfg --clear_user_cfg --load_unique_password option 3. LoadDefaultBmcCfg --clear_user_cfg --load_default_password

Feature	IPMI device version
SMCIPMITool Usage	ipmi ver
SAA Usage	CheckOOBSupport

Feature	Delete SDR
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SMCIPMITool Usage	ipmi delsdr <SDR record ID>
SAA Usage	CheckSensorData --action Del --sdr_id <SDR record ID>

Feature	Session Info
SMCIPMITool Usage	ipmi sessioninfo
SAA Usage	GetSessionInfo

Feature	Get/Set Fan Mode
SMCIPMITool Usage	ipmi fan [mode]
SAA Usage	GetFanMode SetFanMode --Fanmode [mode]

Feature	Flash ASPEED (X10, X11 and later,*.bin) IPMI firmware
SMCIPMITool Usage	ipmi flasha <filename> [Preserve_opt]
SAA Usage	UpdateBmc --file <filename> [OPTIONSs...]

Feature	Flash ASPEED (X12 and later,*.bin) IPMI firmware
SMCIPMITool Usage	ipmi flashrf <filename> [Preserve_opt]
SAA Usage	UpdateBmc --file <filename> [OPTIONSs...]

Feature	Flash ARM (R12 and later,*.bin) IPMI firmware
SMCIPMITool Usage	ipmi flasharm <filename>
SAA Usage	UpdateBmc --file <filename> [OPTIONSs...]

Feature	Universal IPMI firmware flash command support X10 and later
SMCIPMITool Usage	ipmi uflash <filename> [Preserve_opt]
SAA Usage	UpdateBmc --file <filename> [OPTIONSs...]

Feature	Send IPMI raw command
SMCIPMITool Usage	ipmi raw <netFn> <cmd> [data]
SAA Usage	RawCommand --raw '<cmd>'

Feature	Send IPMB raw command
SMCIPMITool Usage	ipmi ipmb <ch> <addr> <netFn> <cmd> ...
SAA Usage	RawCommand --ipmb '<cmd>'

Feature	Reset watchdog timer
SMCIPMITool Usage	ipmi watchdog reset

SAA Usage	BmcWatchDog --action Reset
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Feature	Set watchdog timer
SMCIPMITool Usage	ipmi watchdog set <action> <countdown> <interval>
SAA Usage	BmcWatchDog --action Set --timer_action <action> --countdown <countdown> --interval <interval>

Feature	Get watchdog timer
SMCIPMITool Usage	ipmi watchdog info
SAA Usage	BmcWatchDog --action Info

Feature	System event log information
SMCIPMITool Usage	sel info
SAA Usage	GetEventLog --info --file <filename> [--overwrite]

Feature	List system event log
SMCIPMITool Usage	sel list
SAA Usage	GetEventLog --info --file <filename> [--overwrite]

Feature	Save SEL as csv to file
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SMCIPMITool Usage	sel csv <filename> [--ipmi]
SAA Usage	GetEventLog --file log --format csv [--overwrite]

Feature	Clear system event log
SMCIPMITool Usage	sel clear
SAA Usage	ClearEventLog --clear_bmc_eventlog

Feature	Get/Set SEL time
SMCIPMITool Usage	sel time [YYYYMMDDhhmmss]
SAA Usage	1. Get Time: GetEventLog --info --file <filename> [--overwrite] 2. Set Time: NA

Feature	Add user
SMCIPMITool Usage	user add <user id> <user name> <password> <privilege>
SAA Usage	SetBmcUserList --action Add --user_id <id> --user_name <name> --user_password <password> --user_privilege <level>

Feature	List user
SMCIPMITool Usage	user list [user id]



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SAA Usage	GetBmcUserList
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Feature	Delete user
SMCIPMITool Usage	user delete <user id>
SAA Usage	SetBmcUserList --action Del --user_id <id>

Feature	Update user level
SMCIPMITool Usage	user level <user id> <privilege>
SAA Usage	SetBmcUserList --action Level --user_id <id> --user_privilege <level>

Feature	Update user password
SMCIPMITool Usage	user setpwd <user id> <password>
SAA Usage	SetBmcUserList --action SetPwd --user_id <id> --user_password <password>

Feature	Test login
SMCIPMITool Usage	user test <user name> <password>
SAA Usage	SetBmcUserList --action Test --user_name <name> --user_password <password>

Feature	enable user account type
SMCIPMITool Usage	user enableType <...>
SAA Usage	SetBmcUserList --action EnableType ...

Feature	Display NM SDR
SMCIPMITool Usage	nm20 nmSDR
SAA Usage	GeneralNmManage --type NM20 --action GetNMSTR

Feature	Get SEL time
SMCIPMITool Usage	nm20 selTime
SAA Usage	GeneralNmManage --type NM20 --action GetSelTime

Feature	Get ME Device ID
SMCIPMITool Usage	nm20 deviceId
SAA Usage	NmMeManage --type NM20 --action GetDeviceID

Feature	Reboots ME
SMCIPMITool Usage	nm20 reset
SAA Usage	NmMeManage --type NM20 --action Reset

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Feature	Force ME reset to Default
SMCIPMITool Usage	nm20 reset2Default
SAA Usage	NmMeManage --type NM20 --action ResetToDefault

Feature	Force ME to Update Mode
SMCIPMITool Usage	nm20 updateMode
SAA Usage	NmMeManage --type NM20 --action EnterToUpdateMode

Feature	Set ME power state off
SMCIPMITool Usage	nm20 powerOff
SAA Usage	NmMeManage --type NM20 --action PowerOff

Feature	Get Self Test Results
SMCIPMITool Usage	nm20 selfTest
SAA Usage	NmMeManage --type NM20 --action SelfTest

Feature	Get ME running Mode
SMCIPMITool Usage	nm20 mode

SAA Usage	NmMeManage --type NM20 --action Mode
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Feature	List ME Images information
SMCIPMITool Usage	nm20 listImagesInfo
SAA Usage	NmMeManage --type NM20 --action ListImagesInfo

Feature	OEM Power command for ME
SMCIPMITool Usage	nm20 oemGetPower
SAA Usage	NmMeManage --type NM20 --action GetPower

Feature	OEM Temp. command for ME
SMCIPMITool Usage	nm20 oemGetTemp
SAA Usage	NmMeManage --type NM20 --action GetTemp

Feature	Global Enable NM policy control
SMCIPMITool Usage	nm20 globalEnable
SAA Usage	PowerPolicy --type NM20 --action EnableGlobal

Feature	Global Disable NM policy control
SMCIPMITool	nm20 globalDisable

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Usage	
SAA Usage	PowerPolicy --type NM20 --action DisableGlobal

Feature	per Domain Enable NM policies
SMCIPMITool Usage	nm20 domainEnable <domain ID>
SAA Usage	PowerPolicy --type NM20 --action EnableDomain --domain_id <domain ID>

Feature	per Domain Disable NM policies
SMCIPMITool Usage	nm20 domainDisable <domain ID>
SAA Usage	PowerPolicy --type NM20 --action DisableDomain --domain_id <domain ID>

Feature	per Policy Enable NM policy
SMCIPMITool Usage	nm20 policyEnable <domain ID> <policy ID>
SAA Usage	PowerPolicy --type NM20 --action EnablePolicy --domain_id <domain ID> --policy_id <policy ID>

Feature	per Policy Disable NM policy
SMCIPMITool Usage	nm20 policyDisable <domain ID> <policy ID>

SAA Usage	PowerPolicy --type NM20 --action DisablePolicy --domain_id <domain ID> --policy_id <policy ID>
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Feature	Add Power Policy
SMCIPMITool Usage	nm20 addPowerPolicy <pID> <limit> <t> <p> [<ca>]
SAA Usage	PowerPolicy --type NM20 --action AddPowerPolicy --policy_id <policy ID> --limit <limit> --time <time> --period <period> [--overwrite]

Feature	Get Policy
SMCIPMITool Usage	nm20 getPolicy <domain ID> <policy ID>
SAA Usage	PowerPolicy --type NM20 --action GetPolicy --domain_id <domain ID> --policy_id <policy ID>

Feature	Delete Policy
SMCIPMITool Usage	nm20 delPolicy <domain ID> <policy ID>
SAA Usage	PowerPolicy --type NM20 --action DelPolicy --domain_id <domain ID> --policy_id <policy ID>

Feature	Scan all presented Policies
SMCIPMITool Usage	nm20 scanPolicy
SAA Usage	PowerPolicy --type NM20 --action ScanPolicy

Feature	Add Policy
SMCIPMITool Usage	nm20 addPolicy <dID> <pID> <ptt> <agg> <a> <l> <t> <tl> <p> [<ca>]
SAA Usage	PowerPolicy --type NM20 --action AddPolicy --domain_id <domain ID> --policy_id <policy ID> --trigger_type <trigger type> --mode <mode> --exception_action <exception action> --limit <limit> --time <time> --trigger_limit <trigger limit> --period <period> [--overwrite]

Feature	NM statistics
SMCIPMITool Usage	nm20 statistics <mode> <domainID> <policy ID>
SAA Usage	GeneralNmManage --type NM20 --action GetStatistics --mode <mode> --domain_id <domain ID> --policy_id <policy ID>

Feature	Reset NM statistics
SMCIPMITool Usage	nm20 resetStatistics <mode> <domain ID> <policy ID>
SAA Usage	GeneralNmManage --type NM20 --action ResetStatistics --mode <mode> --domain_id <domain ID> --policy_id <policy ID>

Feature	NM Capabilities
SMCIPMITool Usage	nm20 cap <domain ID> <Trigger Type>
SAA Usage	GeneralNmManage --type NM20 --action GetCapabilities --domain_id

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	<domain ID> --policy_id <policy ID> --trigger_type <trigger type>
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Feature	NM Version
SMCIPMITool Usage	nm20 ver
SAA Usage	GeneralNmManage --type NM20 --action GetVersion

Feature	NM Alert
SMCIPMITool Usage	nm20 alert [dest]
SAA Usage	GeneralNmManage --type NM20 --action GetAlert GeneralNmManage --type NM20 --action SetAlert --value <value>

Feature	Get/Set Max allowed CPU P-State
SMCIPMITool Usage	nm20 pstate [value]
SAA Usage	1. NmCpuManage --type NM20 --action GetPState 2. NmCpuManage --type NM20 --action SetMaxAllowedPState --value 0

Feature	Get/Set Max allowed CPU T-State
SMCIPMITool Usage	nm20 tstate [value]
SAA Usage	1. NmCpuManage --type NM20 --action GetTPState 2. NmCpuManage --type NM20 --action SetMaxAllowedTState --value 0



Feature	Show CPU P-State and T-State
SMCIPMITool Usage	nm20 ptstate
SAA Usage	NmCpuManage --type NM20 --action GetPTState

Feature	Get/Set max allowed logical processors
SMCIPMITool Usage	nm20 cpuCore [cores]
SAA Usage	1. NmCpuManage --type NM20 --action GetCPUCores 2. NmCpuManage --type NM20 --action SetMaxAllowedCPUCores --value 16

Feature	Get/Set Total Power Budget
SMCIPMITool Usage	nm20 totalPower <domainID> [watts]
SAA Usage	1. GeneralNmManage --type NM20 --action GetTotalPower --domain_id 0 2. GeneralNmManage --type NM20 --action SetTotalPower --domain_id 0 --value 100

Feature	Get CPU/Memory temperature
SMCIPMITool Usage	nm20 cpuMemTemp
SAA Usage	NmCpuManage --type NM20 --action GetCPUMemTemp

Feature	Get host CPU data
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SMCIPMITool Usage	nm20 hostCpuData
SAA Usage	NmCpuManage --type NM20 --action GetHostCPUData

Feature	Get Policy Alert Thresholds
SMCIPMITool Usage	nm20 getAlertThreshold <domainId> <policyId>
SAA Usage	PowerPolicy --type NM20 --action GetAlertThreshold --domain_id <domain ID> --policy_id <policy ID>

Feature	Set Policy Alert Thresholds
SMCIPMITool Usage	nm20 setAlertThreshold <domainId> <policyId> <count> [<th0> <th1> <th2>]
SAA Usage	PowerPolicy --type NM20 --action SetAlertThreshold --domain_id <domain ID> --policy_id <policy ID> --count <count> --value <value>

Feature	Set Node Manager Power Draw Range
SMCIPMITool Usage	nm20 setPowerDrawRange <domainID> <min> <max>
SAA Usage	GeneralNmManage --type NM20 --action SetPowerDrawRange --domain_id <domain ID> --range <range>

Feature	Get Policy Suspend Periods
SMCIPMITool Usage	nm20 policySuspendPeriod get <domainId> <policyId>

SAA Usage	PowerPolicy --type NM20 --action GetPeriod --domain_id <domain ID> --policy_id <policy ID>
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Feature	Set Policy Suspend Periods
SMCIPMITool Usage	nm20 policySuspendPeriod add <domainId> <policyId> <startTime> <stopTime> <days>
SAA Usage	PowerPolicy --type NM20 --action AddPeriod --domain_id <domain ID> --policy_id <policy ID> --st <start time> --et <end time> --days <days>

Feature	Update Policy Suspend Periods
SMCIPMITool Usage	nm20 policySuspendPeriod update <domainId> <policyId> <periodId> [start=<startTime> stop=<stopTime> days=<days>]
SAA Usage	PowerPolicy --type NM20 --action UpdatePeriod --domain_id <domain ID> --policy_id <policy ID> --st <start time> --et <end time> --days <days>

Feature	Delete Policy Suspend Periods
SMCIPMITool Usage	nm20 policySuspendPeriod delete <domainId> <policyId> <periodId>
SAA Usage	PowerPolicy --type NM20 --action DeletePeriod --domain_id <domain ID> --policy_id <policy ID> --period_id <period ID>

Feature	Clear Policy Suspend Periods
SMCIPMITool Usage	nm20 policySuspendPeriod clear <domainId> <policyId>
SAA Usage	PowerPolicy --type NM20 --action ClearPeriod --domain_id <domain ID> -

	-policy_id <policy ID>
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Feature	Get DCMI Capability Info
SMCIPMITool Usage	nm20 dcmi cap
SAA Usage	DcmiManage --type NM20 --action GetCap

Feature	Get Power Reading
SMCIPMITool Usage	nm20 dcmi powerReading <mode> [<period>]
SAA Usage	DcmiManage --type NM20 --action GetPowerReading --mode <mode> [--period <period>]

Feature	Get/Set Power Limit
SMCIPMITool Usage	nm20 dcmi powerLimit [<action> <limit> <cTime> <period>]
SAA Usage	DcmiManage --type NM20 --action GetPowerLimit DcmiManage --type NM20 --action SetPowerLimit --exception_action <exception action> --limit <limit> --time <time> --period <period>

Feature	Enable Power Limit
SMCIPMITool Usage	nm20 dcmi powerLimitEnable
SAA Usage	DcmiManage --type NM20 --action EnablePowerLimit

Feature	Disable Power Limit
SMCIPMITool Usage	nm20 dcmi powerLimitDisable
SAA Usage	DcmiManage --type NM20 --action DisablePowerLimit

Feature	Get Sensor
SMCIPMITool Usage	nm20 sensor
SAA Usage	GeneralNmManage --type NM20 --action GetSensor

Feature	Summary
SMCIPMITool Usage	nm20 summary
SAA Usage	GeneralNmManage --type NM20 --action GetSummary

Feature	CUPS Capability
SMCIPMITool Usage	nm30 cupsCap
SAA Usage	NmCupsManage --type NM30 --action GetCUPSCapability

Feature	CUPS Data
SMCIPMITool Usage	nm30 cupsData
SAA Usage	NmCupsManage --type NM30 --action GetCUPSData

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Feature	CUPS Configuration
SMCIPMITool Usage	nm30 cupsConfig
SAA Usage	NmCupsManage --type NM30 --action GetCUPSConfig

Feature	CUPS Policies
SMCIPMITool Usage	nm30 cupsPolicy
SAA Usage	NmCupsManage --type NM30 --action GetCUPSPolicy

Feature	Core CUPS Utilization
SMCIPMITool Usage	nm30 cupsCore
SAA Usage	NmCupsManage --type NM30 --action GetCUPSCore

Feature	IO CUPS Utilization
SMCIPMITool Usage	nm30 cupsIO
SAA Usage	NmCupsManage --type NM30 --action GetCUPSIO

Feature	Memory CUPS Utilization
SMCIPMITool Usage	nm30 cupsMem

SAA Usage	NmCupsManage --type NM30 --action GetCUPSMem
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Feature	Set CUPS Policy
SMCIPMITool Usage	nm30 setCupsPolicy <domainId> <storage> <alert> <threshold> <avgWindow>
SAA Usage	NmCupsManage --type NM30 --action SetCUPSPolicy --domain_id 1 --storage 1 --alert 1 --threshold 50 --avg_window 2000

Feature	Enable CUPS Policy
SMCIPMITool Usage	nm30 cupsPolicyEnable <domainId>
SAA Usage	NmCupsManage --type nm30 --action EnableCUPSPolicy --domain_id 1

Feature	Disable CUPS Policy
SMCIPMITool Usage	nm30 cupsPolicyDisable <domainId>
SAA Usage	NmCupsManage --type nm30 --action DsiableCUPSPolicy --domain_id 1

Feature	Set Turbo Synchronization Ratio
SMCIPMITool Usage	nm40 setTurboSyncRatio <socket> <limit>
SAA Usage	NmCpuManage --type NM40 --action GetTurboSyncRatio --socket 0 --core 255

Feature	Get Turbo Synchronization Ratio
SMCIPMITool Usage	nm40 getTurboSyncRatio <socket> <core>
SAA Usage	NmCpuManage --type NM40 --action SetTurboSyncRatio --socket 0 --limit 0

Feature	Find DCMI device from local or IP range
SMCIPMITool Usage	dcmi find [<Start> <End> <netMask>]
SAA Usage	DcmiManage --type STD_DCMI --action Find [--start_ip <start IP> --end_ip <end IP> --netmask <netmask>]

Feature	List DCMI Capabilities Info
SMCIPMITool Usage	dcmi cap
SAA Usage	DcmiManage --type STD_DCMI --action GetCap

Feature	Display DCMI power reading information
SMCIPMITool Usage	dcmi powerStatus
SAA Usage	DcmiManage --type STD_DCMI --action GetPowerStatus

Feature	List Get/Set Management Controller Identifier String
SMCIPMITool	dcmi MCID [MCID String]



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Usage	
SAA Usage	DcmiManage --type STD_DCMI --action GetMCID DcmiManage --type STD_DCMI --action SetMCID --value <value>

Feature	Check if Node product key(SFT-OOB-LIC) activated
SMCIPMITool Usage	bios isActivated
SAA Usage	QueryProductKey

Feature	Update BIOS (options:-N -R -MER suggested)
SMCIPMITool Usage	bios update <filename> [options]
SAA Usage	UpdateBios --file <filename> [OPTIONSs...]

Feature	Update BIOS via Redfish (For X12 and later)
SMCIPMITool Usage	bios rfupdate <filename> [options]
SAA Usage	UpdateBios --file <filename> [OPTIONSs...]

Feature	Check BIOS info
SMCIPMITool Usage	bios ver
SAA Usage	GetBiosInfo

Feature	Check BIOS image file
SMCIPMITool Usage	bios image <filename>
SAA Usage	GetBionInfo --file <filename> --file_only

Feature	Activate Node product key(SFT-OOB-LIC) for BIOS update
SMCIPMITool Usage	bios setKey <ProductKey>
SAA Usage	ActivateProductKey --key <node product key value>

Feature	Activate Node product keys(SFT-OOB-LIC) for BIOS update
SMCIPMITool Usage	bios setKeys <file>
SAA Usage	ActivateProductKey --key_file <file name>

Feature	Collect MAC addresses into file <file>
SMCIPMITool Usage	bios getMACs <start> <end> <netMask> [<username> <password>]
SAA Usage	FindBmcDevices --getMACs --start_ip <start> --end_ip <end> --netmask <netMask> --file <fileName>

Feature	Display current BIOS post code
SMCIPMITool Usage	bios postCode

SAA Usage	GetBiosPostCode
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Feature	List found IPMI devices
SMCIPMITool Usage	found list
SAA Usage	FoundBmcDevices --action List

Feature	Clear found IPMI devices
SMCIPMITool Usage	found clear
SAA Usage	FoundBmcDevices --action Clear

Feature	Copy to default managed group
SMCIPMITool Usage	found copy <index1> [index2] [...]
SAA Usage	FoundBmcDevices --action Copy --index "1 2 3"

Feature	Copy all to default managed group
SMCIPMITool Usage	found copyall
SAA Usage	FoundBmcDevices --action CopyAll

Feature	Save found IPMI devices to file
SMCIPMITool	found saveAs <filename>

Usage	
SAA Usage	FoundBmcDevices --action SaveAs --file <filename>

Feature	Refresh found IPMI devices
SMCIPMITool Usage	found refresh
SAA Usage	FoundBmcDevices --action Refresh

Feature	Get MCU Info
SMCIPMITool Usage	tp info
SAA Usage	GetTpInfo --file <filename>

Feature	Get Node ID
SMCIPMITool Usage	tp nodeID
SAA Usage	1. GetTpInfo --file <filename> 2. Find XML path: /TwinProCfg/CurrentNodeInfo

Feature	Get/Set System Name
SMCIPMITool Usage	tp systemName [data]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/SystemName

	3. Modify the value 4. ChangeTpInfo --file <tp.xml>
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Feature	Get System P/N
SMCIPMITool Usage	tp systemPN
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/SystemPN

Feature	Get System S/N
SMCIPMITool Usage	tp systemSN
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/SystemSN

Feature	Get Chassis P/N
SMCIPMITool Usage	tp chassisPN
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/ChassisPN

Feature	Get Chassis S/N
SMCIPMITool Usage	tp chassisSN

SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/ChassisSN
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Feature	Get BackPlane P/N
SMCIPMITool Usage	tp backPlanePN
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/BackPlanePN

Feature	Get BackPlane S/N
SMCIPMITool Usage	tp backPlaneSN
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/BackPlaneSN

Feature	Get/Set Chassis Location (Hex Value)
SMCIPMITool Usage	tp chassisLocation [data]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/ChassisLocation 3. Modify the value 4. ChangeTpInfo --file <tp.xml>

Feature	Get/Set BackPlane Location (FatTwin only, 1:Right 2:Left)
SMCIPMITool Usage	tp bpLocation
SAA Usage	<ol style="list-style-type: none"> <li>1. GetTpInfo --file &lt;tp.xml&gt;</li> <li>2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/BackPlaneLocation</li> <li>3. Modify the value</li> <li>4. ChangeTpInfo --file &lt;tp.xml&gt;</li> </ol>

Feature	Get BPN ID
SMCIPMITool Usage	tp bpnID
SAA Usage	<ol style="list-style-type: none"> <li>1. GetTpInfo --file &lt;tp.xml&gt;</li> <li>2. Find XML path: /TwinProCfg/CurrentNodeInfo/Information/BpnId</li> </ol>

Feature	Get BPN Revision
SMCIPMITool Usage	tp bpnRevision
SAA Usage	<ol style="list-style-type: none"> <li>1. GetTpInfo --file &lt;tp.xml&gt;</li> <li>2. Find XML path: /TwinProCfg/CurrentNodeInfo/Information/BackPlaneRevision</li> </ol>

Feature	Get NodeP/N
SMCIPMITool Usage	tp nodePN

SAA Usage	1. GetTplInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/NodePN
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Feature	Get NodeS/N
SMCIPMITool Usage	tp nodeSN
SAA Usage	1. GetTplInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/NodeSN

Feature	Get/Set Config ID
SMCIPMITool Usage	tp configID [id]
SAA Usage	1. GetTplInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/ConfigId 3. Modify the value 4. ChangeTplInfo --file <tp.xml>

Feature	Status of Virtual Media
SMCIPMITool Usage	wsiso status
SAA Usage	GetVmInfo

Feature	mount ISO file
SMCIPMITool Usage	wsiso mount <...>



SAA Usage	<p>Method 1.</p> <p>MountIsoImage --image_url &lt;image URL&gt; [--id &lt;ID&gt; --pw &lt;password&gt;]</p> <p>Method 2.</p> <p>VmManage --action Mount --dev_id &lt;device ID&gt; [--id &lt;ID&gt; --pw &lt;password&gt;]</p> <p>Method 3.</p> <p>a. GetBmcCfg --file &lt;file&gt;</p> <p>b. Find XML path: /BmcCfg/OemCfg/VirtualMedia</p> <p>c. Modify the values and change action to "Mount"</p> <p>d. ChangeBmcCfg --file &lt;file&gt;</p>
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Feature	umount ISO file
SMCIPMITool Usage	wsiso umount
SAA Usage	<p>Method 1.</p> <p>UnMountIsoImage</p> <p>Method 2.</p> <p>VmManage --action UnMount --dev_id &lt;device ID&gt;</p> <p>Method 3.</p> <p>a. GetBmcCfg --file &lt;file&gt;</p> <p>b. Find XML path: /BmcCfg/OemCfg/VirtualMedia</p> <p>c. Change action to "UnMount"</p> <p>d. ChangeBmcCfg --file &lt;file&gt;</p>

Feature	Update power supply firmware
SMCIPMITool Usage	psu (hidden) update <slaveAddr> <file>

SAA Usage	UpdatePsu --address <slaveAddr> --file <file>
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Feature	Get TAS Information
SMCIPMITool Usage	tas info
SAA Usage	TasManage --action GetInfo

Feature	Pause TAS Service
SMCIPMITool Usage	tas pause
SAA Usage	TasManage --action Pause

Feature	Resume TAS Service
SMCIPMITool Usage	tas resume
SAA Usage	TasManage --action Resume

Feature	Trigger TAS to recollect data
SMCIPMITool Usage	tas refresh
SAA Usage	TasManage --action Refresh

Feature	Clear TAS collected data in BMC
SMCIPMITool	tas clear

Usage	
SAA Usage	TasManage --action Clear

Feature	Set TAS update period (limit 5 to 60 sec)
SMCIPMITool Usage	tas period <sec>
SAA Usage	TasManage --action SetPeriod --period <sec>

Feature	NVME Summary
SMCIPMITool Usage	nvme list
SAA Usage	GetNvmeInfo

Feature	PCIe SSD NVME Info
SMCIPMITool Usage	nvme info
SAA Usage	GetNvmeInfo [--dev_id <device_id>]

Feature	Rescan all devices by in band
SMCIPMITool Usage	nvme rescan
SAA Usage	ControlNVMe --action Rescan

Feature	Insert SSD by out of band
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SMCIPMITool Usage	nvme insert      <aoc> <group> <slot>
SAA Usage	ControlNVMe --action Insert --dev_id <aoc> --group_id <group> --slot <slot>

Feature	Locate SSD
SMCIPMITool Usage	nvme locate      <HDD Name>
SAA Usage	ControlNVMe --action Locate --device_name <HDD Name>

Feature	Stop Locate SSD
SMCIPMITool Usage	nvme stopLocate <HDD Name>
SAA Usage	ControlNVMe --action StopLocate --device_name <HDD Name>

Feature	Remove NVME device
SMCIPMITool Usage	nvme remove      <HDD Name>
SAA Usage	ControlNVMe --action Remove --device_name <HDD Name>

Feature	NVME SMART Data
SMCIPMITool Usage	nvme smartData    [HDD Name]
SAA Usage	GetSmartData

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Feature	List Node Product Key
SMCIPMITool Usage	nodekey list
SAA Usage	QueryProductKey [--showall]

Feature	Start diagnostics on target system
SMCIPMITool Usage	diag start <diag Image>
SAA Usage	SuperDiag --action Start --file <diag Image> --reboot

Feature	Download diagnostic result
SMCIPMITool Usage	diag download <filename>
SAA Usage	SuperDiag --action Download --file <filename>

Feature	Display diagnostic result from file
SMCIPMITool Usage	diag display <JSON file>
SAA Usage	SuperDiag --action Display --file <JSON file>

Feature	List maintenance event log
SMCIPMITool Usage	mel list

SAA Usage	GetMaintenEventLog
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Feature	Download BMC maintenance event log to a file
SMCIPMITool Usage	mel download <filename>
SAA Usage	GetMaintenEventLog --file <filename>

Feature	Clear BMC maintenance event log
SMCIPMITool Usage	mel clear
SAA Usage	ClearMaintenEventLog

Feature	Generate crash log
SMCIPMITool Usage	crashDump generate
SAA Usage	GetHostDump --action CreateDump

Feature	Download crash log
SMCIPMITool Usage	crashDump download <fileName>
SAA Usage	GetHostDump --action DirectDump

Feature	Redfish version number
SMCIPMITool	redfish version

Usage	
SAA Usage	GetSystemInfo

Feature	Enable/Disable Active Directory Service
SMCIPMITool Usage	redfish accountService ad status [enabled]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AD/Configuration/ADEnable</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	List active directory server and role group
SMCIPMITool Usage	redfish accountService ad list
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AD/Configuration/ADRule</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Add new server address
SMCIPMITool Usage	redfish accountService ad addAddress <IP> <Port>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AD/Configuration/ServiceAddr1 or 2 or 3</li> <li>3. Modify the value</li> </ol>

	4. ChangeBmcCfg --file <file>
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Feature	Add remote role mapping
SMCIPMITool Usage	redfish accountService ad addRole <group> <user> <role>
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/AD/Configuration/ADRule[RuleID]/Configuration 3. Modify the value 4. ChangeBmcCfg --file <file>

Feature	Delete server address
SMCIPMITool Usage	redfish accountService ad deleteAddress <number>
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/AD/Configuration/ADRule[RuleID] 3. Modify the Action to Delete 4. ChangeBmcCfg --file <file>

Feature	Delete remote role mapping
SMCIPMITool Usage	redfish accountService ad deleteRole <number>
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/AD/Configuration/ADRule[RuleID] 3. Modify the Action to Delete 4. ChangeBmcCfg --file <file>



Feature	LDAP Information
SMCIPMITool Usage	redfish accountService ldap info
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Enable/Disable LDAP Service
SMCIPMITool Usage	redfish accountService ldap status [enabled]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/LDAPEnable</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Bind DN
SMCIPMITool Usage	redfish accountService ldap bindDN [name]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/BindDN</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Set bind password
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SMCIPMITool Usage	redfish accountService ldap bindPassword <password>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/BindPassword</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set username attribute
SMCIPMITool Usage	redfish accountService ldap username [username]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/UsernameAttribute</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set group attribute
SMCIPMITool Usage	redfish accountService ldap group [group attribute]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/GroupsAttribute</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Add new server address
SMCIPMITool	redfish accountService ldap addAddress <IP> <Port> [ssl]>

Usage	
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/ServiceAddr1 or 2 or 3</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Delete server address
SMCIPMITool Usage	redfish accountService ldap deleteAddress <number>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/ServiceAddr1 or 2 or 3</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Add search base
SMCIPMITool Usage	redfish accountService ldap addSearchBase <search base>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/SearchBase1 or 2 or 3</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Delete search base
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SMCIPMITool Usage	redfish accountService ldap deleteSearchBase <number>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/SearchBase1 or 2 or 3</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Add remote role mapping
SMCIPMITool Usage	redfish accountService ldap addRole <group> <user> <role>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/LDAPRule[RuleID]</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Delete remote role mapping
SMCIPMITool Usage	redfish accountService ldap deleteRole <number>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/LDAP/Configuration/LDAPRule[RuleID]</li> <li>3. Modify the Action to Delete</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Radius settings
SMCIPMITool Usage	redfish accountService radius <...>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/RADIUS</li> <li>3. Modify the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Manage lockout settings
SMCIPMITool Usage	redfish accountService lockoutSetting [...]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/Account/Configuration/AccountLockoutThreshold</li> <li>3. Find XML path: /BmcCfg/OemCfg/Account/Configuration/AccountLockoutCounterResetAfter</li> <li>4. Find XML path: /BmcCfg/OemCfg/Account/Configuration/AccountLockoutDuration</li> <li>5. Modify the values</li> <li>6. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Enable/Disable IP access control
SMCIPMITool Usage	redfish ipctrl status [enabled]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path:</li> </ol>

	/BmcCfg/OemCfg/IPAccessControl/Configuration/IPAccessControlStatus 3. Modify the value 4. ChangeBmcCfg --file <file>
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Feature	List IP access control
SMCIPMITool Usage	redfish ipctrl list
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/IPAccessControl/Configuration/ControlRule 3. Modify the value 4. ChangeBmcCfg --file <file>

Feature	Add IP access control policy
SMCIPMITool Usage	redfish ipctrl Add <IP> <Prefix> <Policy>
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/IPAccessControl/Configuration/ControlRule 3. Modify the value 4. ChangeBmcCfg --file <file>

Feature	Edit IP access control policy
SMCIPMITool Usage	redfish ipctrl edit <rule no> <IP> <Prefix> <Policy>
SAA Usage	1. GetBmcCfg --file <file>

	2. Find XML path: /BmcCfg/OemCfg/IPAccessControl/Configuration/ControlRule 3. Modify the value 4. ChangeBmcCfg --file <file>
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Feature	Delete IP access control policy
SMCIPMITool Usage	redfish ipctrl delete <rule no>
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/IPAccessControl/Configuration/ControlRule 3. Modify the Action to Delete 4. ChangeBmcCfg --file <file>

Feature	Get firmware inventory information
SMCIPMITool Usage	redfish firmwareInventory info
SAA Usage	GetFirmwareInventoryInfo

Feature	firmware inventory actions
SMCIPMITool Usage	redfish firmwareInventory install
SAA Usage	BmcRotManage --action <UpdateGolden Recover> BiosRotManage --action <UpdateGolden Recover>

Feature	List alert settings
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SMCIPMITool Usage	redfish eventService alert list
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AlertList/Configuration/Alert</li> </ol>

Feature	Set alert by SNMPv1
SMCIPMITool Usage	redfish eventService alert setSNMPv1 <..>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AlertList/Configuration/Alert</li> <li>3. Modify the existed AlertNumber, or add a new section with preferred AlertNumber.</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Set alert by SNMPv3
SMCIPMITool Usage	redfish eventService alert setSNMPv3 <..>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AlertList/Configuration/Alert</li> <li>3. Modify the existed AlertNumber, or add a new section with preferred AlertNumber.</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Set alert by SMTP
SMCIPMITool Usage	redfish eventService alert setSMTP <..>



SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AlertList/Configuration/Alert</li> <li>3. Modify the existed AlertNumber, or add a new section with preferred AlertNumber.</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>
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Feature	Set alert by Redfish
SMCIPMITool Usage	redfish eventService alert setRedfish <..>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AlertList/Configuration/Alert</li> <li>3. Modify the existed AlertNumber, or add a new section with preferred AlertNumber.</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Delete alert
SMCIPMITool Usage	redfish eventService alert delete <number>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/AlertList/Configuration/Alert</li> <li>3. Find the AlertNumber to be deleted, and change the Action to "Delete"</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Send alert test
SMCIPMITool Usage	redfish eventService alert sendTest

SAA Usage	AlertManage --action sendTest
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Feature	List SMTP mail server configuration
SMCIPMITool Usage	redfish eventService smtp list
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/SNMP

Feature	Get/Set SMTP server
SMCIPMITool Usage	redfish eventService smtp server [server name]
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/ServerAddress 3. Change the value to [server name] 4. ChangeBmcCfg --file <file>

Feature	Get/Set SMTP port number
SMCIPMITool Usage	redfish eventService smtp port [number]
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/Port 3. Change the value to [number] 4. ChangeBmcCfg --file <file>

Feature	Get/Set SMTP connection protocol
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SMCIPMITool Usage	redfish eventService smtp protocol [mode]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/ConnectionProtocol</li> <li>3. Change the value to [mode]</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set SMTP authentication protocol
SMCIPMITool Usage	redfish eventService smtp authentication [mode]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/Authentication</li> <li>3. Change the value to [mode]</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set SMTP user name
SMCIPMITool Usage	redfish eventService smtp user [name]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/UserName</li> <li>3. Change the value to [name]</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Set SMTP password
SMCIPMITool	redfish eventService smtp password <password>

Usage	
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/Password</li> <li>3. Change the value to &lt;password&gt;</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Get/Set SMTP sender's address
SMCIPMITool Usage	redfish eventService smtp sender [mail]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/FromAddress</li> <li>3. Change the value to [mail]</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Enable/Disable SNMP Service
SMCIPMITool Usage	redfish eventService snmp status [enabled]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/ServiceEnabling/SNMP</li> <li>3. Change the value to [enabled]</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Display SNMP settings
SMCIPMITool Usage	redfish eventService snmp list
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> </ol>

	2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration
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Feature	Enable/Disable SNMPv2 Service
SMCIPMITool Usage	redfish eventService snmp snmpv2 status [enabled]
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/SNMPV2/EnableSNMPv2c</li> <li>3. Change the value to [enabled]</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Add new community setting
SMCIPMITool Usage	redfish eventService snmp snmpv2 add <name> <community string> <mode>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/SNMPV2</li> <li>3. Add new section of CommunityStrings with preferred CommunityStringID and fill in the value</li> <li>4. ChangeBmcCfg --file &lt;file&gt;</li> </ol>

Feature	Edit community setting
SMCIPMITool Usage	redfish eventService snmp snmpv2 edit <id> <name> <community string> <mode>
SAA Usage	<ol style="list-style-type: none"> <li>1. GetBmcCfg --file &lt;file&gt;</li> <li>2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/SNMPV2/CommunityStrings</li> </ol>

	3. Update the value for the specific CommunityStringID 4. ChangeBmcCfg --file <file>
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Feature	Delete community settings
SMCIPMITool Usage	redfish eventService snmp snmpv2 delete [id]
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/SNMPV2/CommunityStrings 3. Change the Action value to "Delete" for the specific CommunityStringID 4. ChangeBmcCfg --file <file>

Feature	Get/Set community string display mode
SMCIPMITool Usage	redfish eventService snmp snmpv2 communityString [mode]
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/SNMPV2/HideCommunityStrings 3. Change the value to Disable for show mode, and Enable for hide mode 4. ChangeBmcCfg --file <file>

Feature	Enable/Disable SNMPv3 Service
SMCIPMITool Usage	redfish eventService snmp snmpv3 status [enabled]
SAA Usage	1. GetBmcCfg --file <file>

	2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/SNMPV3/EnableSNMPv3 3. Change the value to Enable/Disable 4. ChangeBmcCfg --file <file>
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Feature	Get/Set SNMPv3 authentication protocol
SMCIPMITool Usage	redfish eventService snmp snmpv3 authentication [protocol]
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/SNMPV3/AuthenticationProtocol 3. Change the value 4. ChangeBmcCfg --file <file>

Feature	Get/Set SNMPv3 private protocol
SMCIPMITool Usage	redfish eventService snmp snmpv3 private [protocol]
SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/SNMP/Configuration/SNMPV3/EncryptionProtocol 3. Change the value 4. ChangeBmcCfg --file <file>

Feature	Enable/Disable Host Interface
SMCIPMITool Usage	redfish hostInterface status [enabled]

SAA Usage	1. GetBmcCfg --file <file> 2. Find XML path: /BmcCfg/OemCfg/HostInterface/Configuration/HostInterfaceControl 3. Modify the value 4. ChangeBmcCfg --file <file>
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Feature	Update BPN CPLD
SMCIPMITool Usage	redfish bpnCPLDUpdate <CPLD file>
SAA Usage	UpdateBackplaneCpld --file <filename> --manual_ejected

Feature	Get BIOS Configuration
SMCIPMITool Usage	redfish biosConfiguration get [command]
SAA Usage	a. GetCurrentBiosCfg --file <filename> b. Find <Setting> in XML file

Feature	Set BIOS Configuration
SMCIPMITool Usage	redfish biosConfiguration set <command> <value>
SAA Usage	a. GetCurrentBiosCfg --file <filename> b. Modify <Setting> in XML file c. ChangeBiosCfg --file <filename> [--reboot]

Feature	Display BIOS Configuration menu
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SMCIPMITool Usage	redfish biosConfiguration menu
SAA Usage	a. GetCurrentBiosCfg --file <filename> b. Find <Menu> in XML file

Feature	Reset BIOS Configuration and clear pending setting
SMCIPMITool Usage	redfish biosConfiguration reset [--reboot]
SAA Usage	LoadDefaultBiosCfg [--reboot]

Feature	Search BIOS Configuration keyword
SMCIPMITool Usage	redfish biosConfiguration search [keyword]
SAA Usage	a. GetCurrentBiosCfg --file <filename> b. Search the [keyword] in XML file

Feature	BIOS Configuration backup to property file
SMCIPMITool Usage	redfish biosConfiguration save [<filename> [option]]
SAA Usage	option 0 - Save all current settings to file (default) : GetCurrentBiosCfg --file <filename> option 1 - Save all settings in the pending list to file : not support option 2 - Only save settings with different values from current BIOS in the pending list to file : not support

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Feature	BIOS Configuration restore from property file
SMCIPMITool Usage	redfish biosConfiguration load <filename>
SAA Usage	ChangeBiosCfg --file <filename>

Feature	HTML5 version iKVM
SMCIPMITool Usage	redfish kvm
SAA Usage	RemoteConsole

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## 5. Usage mapping from IPMICFG to SAA

IPMICFG is in-band usage only tool.

The following SAA command usage mapping is for in-band.

Feature	Shows IPv4 address and MAC of BMC.
IPMICFG Usage	-m
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/IPv4/Configuration/IPAddr

Feature	Sets IPv4 address (format: ###.###.###.###).
IPMICFG Usage	-m <ip>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/IPv4/Configuration/IPAddr 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Sets MAC (format: #:~:~:~:~:~:~).
IPMICFG Usage	-a <mac>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/MacAddr 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Shows Subnet Mask.
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IPMICFG Usage	-k
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/SubNetMask

Feature	Sets Subnet Mask (format: ###.###.###.###).
IPMICFG Usage	-k <mask>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/SubNetMask 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Gets the DHCP status.
IPMICFG Usage	-dhcp
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/IPSrc

Feature	Enables/Disables the DHCP.
IPMICFG Usage	-dhcp <on off>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/IPSrc 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Shows a Gateway IP.
IPMICFG Usage	-g
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/DefaultGateWayAddr

Feature	Sets a Gateway IP (format: ###.###.###.###).
IPMICFG Usage	-g <gateway>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPv4/Configuration/DefaultGateWayAddr 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Performs a BMC cold reset.  Detects if a BMC reset was successfully performed on the IPMI device, use -d after -r.
IPMICFG Usage	-r
SAA Usage	TimedBmcReset --immediate

Feature	Resets to the factory defaults without preserving configurations. option: 1   Preserves User configurations option: 2   Restores to factory default and default password
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	option: 3   Sets user defaults to ADMIN/ADMIN
IPMICFG Usage	-fd <option>
SAA Usage	option 1. LoadDefaultBmcCfg --preserve_user_cfg option 2. LoadDefaultBmcCfg --clear_user_cfg --load_unique_password option 3. LoadDefaultBmcCfg --clear_user_cfg --load_default_password

Feature	Resets IPMI to the factory default. (Clean LAN).
IPMICFG Usage	-fdl
SAA Usage	LoadDefaultBmcCfg --clear_user_cfg --load_unique_password --load_default_lan

Feature	Resets IPMI to the factory default. (Clean FRU & LAN).
IPMICFG Usage	-fde
SAA Usage	LoadDefaultBmcCfg --clear_user_cfg --load_unique_password --load_default_lan --load_default_fru

Feature	Detects if a BMC reset was successfully performed on the IPMI device. Note that this option can be only used after -r, -fd, -fdl or -fde
IPMICFG Usage	-d
SAA Usage	-r -d: TimedBmcReset --boot_check -fd -d: option 1. LoadDefaultBmcCfg --preserve_user_cfg --bmc_boot_check option 2. LoadDefaultBmcCfg --clear_user_cfg --load_unique_password -bmc_boot_check option 3. LoadDefaultBmcCfg --clear_user_cfg --load_default_password -bmc_boot_check

	-fdl -d: LoadDefaultBmcCfg --clear_user_cfg --load_unique_password --load_default_lan --bmc_boot_check -fde -d: LoadDefaultBmcCfg --clear_user_cfg --load_unique_password --load_default_lan --load_default_fru --bmc_boot_check
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Feature	Gets firmware revision.
IPMICFG Usage	-ver
SAA Usage	GetBmcInfo

Feature	Gets VLAN status.
IPMICFG Usage	-vlan
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/VLAN_Enable 3. Find XML path: /BmcLANCfg/LAN/Configuration/VLAN_ID

Feature	Enables/Disables the VLAN and sets the VLAN tag. If VLAN tag is not given, it uses the previously saved value.
IPMICFG Usage	-vlan <on off> [VLAN tag]
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/VLAN_Enable 3. Find XML path: /BmcLANCfg/LAN/Configuration/VLAN_ID 4. Modify the values 5. ChangeBmcLanCfg --file <file>

Feature	Checks and reports the basic health status of the BMC.
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IPMICFG Usage	-selftest
SAA Usage	CheckSelfTest

Feature	Sends a RAW IPMI request and prints a response. Format: NetFn/LUN Cmd [Data1 ... DataN]
IPMICFG Usage	-raw
SAA Usage	RawCommand --raw '<raw command>'

Feature	Shows information of the FRU inventory area.
IPMICFG Usage	-fru info
SAA Usage	GetFruInfo

Feature	Shows all FRU values.
IPMICFG Usage	-fru list
SAA Usage	GetFruInfo

Feature	Shows chassis type code.
IPMICFG Usage	-fru cthelp
SAA Usage	GetFruInfo -h

Feature	Shows help of FRU Write.
IPMICFG Usage	-fru help
SAA Usage	ChangeFruInfo -h



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Feature	Shows FRU field value.
IPMICFG Usage	-fru <field>
SAA Usage	GetFruInfo

Feature	Writes FRU.
IPMICFG Usage	-fru <field> <value>
SAA Usage	ChangeFruInfo --item <item name> --value <assignment value> CT = Chassis Type CP = Chassis Part Number CS = Chassis Serial Number BDT = Board Mfg. Date/Time ("YYYY/MM/DD HH:MM") BM = Board Manufacturer BPN = Board Product Name BS = Board Serial Name BP = Board Part Number PM = Product Manufacturer PN = Product Name PPM = Product Part/Model Number PV = Product Version PS = Product Serial Number PAT = Asset Tag

Feature	Backs up FRU to a file <Binary format>.
IPMICFG Usage	-fru backup <file>
SAA Usage	GetFruInfo --file <file name> --dump

Feature	Restores FRU from a file <Binary format>.
IPMICFG Usage	-fru restore <file>
SAA Usage	RestoreFruInfo --file <file name>

Feature	Backs up FRU to a file <Text format>.
IPMICFG Usage	-fru tbackup <file>
SAA Usage	GetFruInfo --file <file name> --dump --format TEXT

Feature	Restores FRU from a file <Text format>.
IPMICFG Usage	-fru trestore <file>
SAA Usage	RestoreFruInfo --file <file name> --format TEXT

Feature	Gets/Sets the FRU version. (<v1> and <v2> are BCD-format)
IPMICFG Usage	-fru ver <v1> <v2>
SAA Usage	GetFruInfo ChangeFruInfo --fru_version <FRU version>

Feature	Inputs 14 parameters and writes to FRU Chassis/Board/Product fields. Please use the "-fru dmi" command to view the parameters.
IPMICFG Usage	-fru dmi <\$1> ... <\$14>
SAA Usage	ChangeFruInfo --item ALL --value "<CT>,<CP>,<CS>,<BDT>,<BM>,<BPN>,<BS>,<BP>,<PM>,<PN>,<PPM>,<PV>,<P

	S>,<PAT>"
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Feature	Shows SEL information.
IPMICFG Usage	--sel info
SAA Usage	GetEventLog --info --file <filename> [--overwrite]

Feature	Shows SEL records. -y <n years>   Filter event logs within n years -m <n months>   Filter event logs within n months -d <n days>   Filter event logs within n days
IPMICFG Usage	--sel list [option]
SAA Usage	GetEventLog [--year   --month   --day] [--file <filename>] [--overwrite]]

Feature	Deletes all SEL records.
IPMICFG Usage	--sel del
SAA Usage	ClearEventLog --clear_bmc_eventlog

Feature	Shows SEL raw data.
IPMICFG Usage	--sel raw
SAA Usage	GetEventLog --raw_data [--file <filename>] [--overwrite]]

Feature	Shows SDR records and readings.
IPMICFG Usage	--sdr [full]
SAA Usage	CheckSensorData --action [1 GetInfo]

Feature	Deletes the SDR record.
IPMICFG Usage	<code>--sdr del &lt;sdr id&gt;</code>
SAA Usage	<code>CheckSensorData --action Del --sdr_id &lt;SDR record ID&gt;</code>

Feature	Gets/Sets the SDR version. (<v1> and <v2> are BCD-format)
IPMICFG Usage	<code>--sdr ver &lt;v1&gt; &lt;v2&gt;</code>
SAA Usage	<code>CheckSensorData --action GetVer</code> <code>CheckSensorData --action SetVer --sdr_major_version &lt;v1&gt; --sdr_minor_version &lt;v2&gt;</code>

Feature	Displays NM SDR.
IPMICFG Usage	<code>--nm nmsdr</code>
SAA Usage	<code>GeneralNmManage --type NM20 --action GetNMSTR</code>

Feature	Gets SEL time.
IPMICFG Usage	<code>--nm seltime</code>
SAA Usage	<code>GeneralNmManage --type NM20 --action GetSelTime</code>

Feature	Gets the ID of the ME device.
IPMICFG Usage	<code>--nm deviceid</code>
SAA Usage	<code>NmMeManage --type NM20 --action GetDeviceID</code>

Feature	Reboots ME.
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IPMICFG Usage	-nm reset
SAA Usage	NmMeManage --type NM20 --action Reset

Feature	Forces ME to reset to default settings.
IPMICFG Usage	-nm reset2default
SAA Usage	NmMeManage --type NM20 --action ResetToDefault

Feature	Forces ME to enter the update mode.
IPMICFG Usage	-nm updatemode
SAA Usage	NmMeManage --type NM20 --action EnterToUpdateMode

Feature	Gets self-test results.
IPMICFG Usage	-nm selftest
SAA Usage	NmMeManage --type NM20 --action SelfTest

Feature	Lists ME information of images.
IPMICFG Usage	-nm listimagesinfo
SAA Usage	NmMeManage --type NM20 --action ListImagesInfo

Feature	OEM Power command for ME.
IPMICFG Usage	-nm oemgetpower
SAA Usage	NmMeManage --type NM20 --action GetPower

Feature	OEM Temp. command for ME.
IPMICFG Usage	-nm oemgettemp
SAA Usage	NmMeManage --type NM20 --action GetTemp

Feature	Gets the maximum allowed CPU P-State.
IPMICFG Usage	-nm pstate
SAA Usage	1. NmCpuManage --type NM20 --action GetPState 2. NmCpuManage --type NM20 --action SetMaxAllowedPState --value 0

Feature	Gets the maximum allowed CPU T-State.
IPMICFG Usage	-nm tstate
SAA Usage	1. NmCpuManage --type NM20 --action GetTPState 2. NmCpuManage --type NM20 --action SetMaxAllowedTState --value 0

Feature	Gets CPU/memory temperature.
IPMICFG Usage	-nm cpumemtemp
SAA Usage	NmCpuManage --type NM20 --action GetCPUMemTemp

Feature	Gets the host CPU data.
IPMICFG Usage	-nm hostcpudata
SAA Usage	NmCpuManage --type NM20 --action GetHostCPUData

Feature	Gets the fan mode.
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IPMICFG Usage	-fan
SAA Usage	GetFanMode

Feature	Sets the fan mode.
IPMICFG Usage	-fan <mode>
SAA Usage	SetFanMode --fanmode <mode>

Feature	Displays PMBus health information of power supply.
IPMICFG Usage	-pminfo [full]
SAA Usage	GetPsuInfo

Feature	Displays FRU health information of power supply.
IPMICFG Usage	-psfruinfo
SAA Usage	GetPsFruInfo

Feature	Lists user privileges.
IPMICFG Usage	-user list
SAA Usage	GetBmcUserList

Feature	Shows a user privilege code.
IPMICFG Usage	-user help
SAA Usage	SetBmcUserList -h

Feature	Adds a user.
IPMICFG Usage	<code>-user add &lt;user id&gt; &lt;name&gt; &lt;password&gt; &lt;privilege&gt;</code>
SAA Usage	<code>SetBmcUserList --action Add --user_id &lt;id&gt; --user_name &lt;name&gt; --user_password &lt;password&gt; --user_privilege &lt;level&gt;</code>

Feature	Deletes users.
IPMICFG Usage	<code>-user del &lt;user id&gt;</code>
SAA Usage	<code>SetBmcUserList --action Del --user_id &lt;id&gt;</code>

Feature	Updates user privileges.
IPMICFG Usage	<code>-user level &lt;user id&gt; &lt;privilege&gt;</code>
SAA Usage	<code>SetBmcUserList --action Level --user_id &lt;id&gt; --user_privilege &lt;level&gt;</code>

Feature	Updates a user password.
IPMICFG Usage	<code>-user setpwd &lt;user id&gt; &lt;password&gt;</code>
SAA Usage	<code>SetBmcUserList --action SetPwd --user_id &lt;id&gt; --user_password &lt;password&gt;</code>

Feature	Downloads IPMI configuration to a binary file.
IPMICFG Usage	<code>-conf download &lt;file&gt;</code>
SAA Usage	<code>GetBmcCfg --file &lt;file name&gt; --dump</code>

Feature	Uploads IPMI configuration from a binary file. option: -p   Bypass warning message
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IPMICFG Usage	<code>--conf upload &lt;file&gt; &lt;option&gt;</code>
SAA Usage	<code>ChangeBmcCfg --file &lt;file name&gt; --restore</code>

Feature	Downloads IPMI configuration to a text file.
IPMICFG Usage	<code>--conf tdownload &lt;file&gt;</code>
SAA Usage	<code>GetBmcCfg --file &lt;file name&gt;</code>

Feature	Uploads IPMI configuration from a text file. option: -p   Bypass warning message
IPMICFG Usage	<code>--conf tupload &lt;file&gt; &lt;option&gt;</code>
SAA Usage	<code>ChangeBmcCfg --file &lt;file name&gt;</code>

Feature	Clears chassis intrusion.
IPMICFG Usage	<code>--clrint</code>
SAA Usage	<code>ChassisIntrusion --action Clear</code>

Feature	Resets system and forces to boot from the selected device.
IPMICFG Usage	<code>--reset &lt;index&gt;</code>
SAA Usage	1. <code>SetPowerAction --action 3</code> 2. <code>SetBootOption --device_type &lt;index&gt;</code>

Feature	Initiates a soft-shutdown for OS and forces system to boot from the selected device.
IPMICFG Usage	<code>--soft &lt;index&gt;</code>

SAA Usage	1. SetPowerAction --action 4 2. SetBootOption --device_type <index>
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Feature	Shows the IPv6 mode.
IPMICFG Usage	-ipv6 mode
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/DynamicIPv6/Configuration/DHCPv6Mode

Feature	Sets the IPv6 mode.
IPMICFG Usage	-ipv6 mode <mode>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/DynamicIPv6/Configuration/DHCPv6Mode 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Shows IPv6 auto configuration.
IPMICFG Usage	-ipv6 autoconfig
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/DynamicIPv6/Configuration/AutoConfiguration

Feature	Enables/Disables IPv6 auto configuration.
IPMICFG Usage	-ipv6 autoconfig <on off>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/DynamicIPv6/Configuration/AutoConfiguration 3. Modify the value 4. ChangeBmcLanCfg --file <file>

Feature	Lists IPv6 static and dynamic addresses.
IPMICFG Usage	-ipv6 list
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"] 3. Find XML path: /BmcLANCfG/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"]/Configuration/Address 4. Find XML path: /BmcLANCfG/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"]/Configuration/PrefixLength

Feature	Shows IPv6 DUID.
IPMICFG Usage	-ipv6 dnid

SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/DynamicIPv6/Information/DUID
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Feature	Gets/Sets IPv6 DNS server.
IPMICFG Usage	-ipv6 dns [ip]
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticNameServer 3. Find XML path: /BmcLANCfG/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticNameServer2 (If exists) 3. Modify the values 4. ChangeBmcLanCfg --file <file>"

Feature	Adds IPv6 static address.
IPMICFG Usage	-ipv6 add <id> <ip> <prefix>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfG/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"] 3. Find XML path: /BmcLANCfG/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="

	1"]/Configuration/Address 4. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"]/Configuration/PrefixLength 5. Modify the values 6. ChangeBmcLanCfg --file <file>
--	---

Feature	Removes IPv6 static address.
IPMICFG Usage	-ipv6 remove <id>
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"] 3. Find XML path: /BmcLANCfg/LAN/Configuration/StaticIPv6/Configuration/IPv6StaticGroup[@ID="1"]/Configuration/Address 4. Modify the values 5. ChangeBmcLanCfg --file <file>

Feature	Displays the existing NVME SSD list.
IPMICFG Usage	-nvme list
SAA Usage	GetNvmeInfo [--dev_id <device_id>]

Feature	Displays NVME SSD information.
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IPMICFG Usage	-nvme info
SAA Usage	GetNvmeInfo [--dev_id <device_id>]

Feature	Rescans all devices by in-band.
IPMICFG Usage	-nvme rescan
SAA Usage	ControlNVMe --action Rescan

Feature	Inserts SSD by out-of-band.
IPMICFG Usage	-nvme insert <aoc> <group> <slot>
SAA Usage	ControlNVMe --action Insert --dev_id <aoc> --group_id <group> --slot <slot>

Feature	Locates SSD. (in-band)
IPMICFG Usage	-nvme locate <HDD name>
SAA Usage	ControlNVMe --action Locate --device_name <HDD Name>

Feature	Locates SSD. (out-of-band)
IPMICFG Usage	-nvme locate <aoc> <group> <slot>
SAA Usage	ControlNVMe --action Locate --dev_id <aoc> --group_id <group> --slot <slot>

Feature	Stops locating SSD. (in-band)
IPMICFG Usage	-nvme stoplocate <HDD name>

SAA Usage	ControlNVMe --action StopLocate --device_name <HDD Name>
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Feature	Stops locating SSD. (out-of-band)
IPMICFG Usage	-nvme stoplocate <aoc> <group> <slot>
SAA Usage	ControlNVMe --action StopLocate --dev_id <aoc> --group_id <group> --slot <slot>

Feature	Removes NVME device. (in-band) option1: 0   Do eject after remove (Default) option1: 1   Do not eject after remove option2: -p   Bypass warning message
IPMICFG Usage	-nvme remove <HDD name> [option1] [option2]
SAA Usage	ControlNVMe --action Remove --device_name <HDD Name>

Feature	Removes NVME device. (out-of-band) option: -p   Bypass warning message
IPMICFG Usage	-nvme remove <aoc> <group> <slot> [option]
SAA Usage	ControlNVMe --action Remove --dev_id <aoc> --group_id <group> --slot <slot>

Feature	NVME S.M.A.R.T data.
IPMICFG Usage	-nvme smartdata [HDD name]
SAA Usage	GetSmartData --device_name [HDD name]

Feature	Gets TAS information.
IPMICFG Usage	-tas info
SAA Usage	TasManage --action GetInfo

Feature	Pauses a TAS service.
IPMICFG Usage	-tas pause
SAA Usage	TasManage --action Pause

Feature	Resumes a TAS service.
IPMICFG Usage	-tas resume
SAA Usage	TasManage --action Resume

Feature	Triggers TAS to recollect data.
IPMICFG Usage	-tas refresh
SAA Usage	TasManage --action Refresh

Feature	Clears collected TAS data in BMC.
IPMICFG Usage	-tas clear
SAA Usage	TasManage --action Clear

Feature	Sets the time length of a TAS update <limit 1 to 60 sec>.
IPMICFG Usage	-tas period <sec>
SAA Usage	TasManage --action SetPeriod --period <sec>



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Feature	Gets MCU information.
IPMICFG Usage	-tp info
SAA Usage	GetTpInfo --file <filename>

Feature	Gets information of MCU type. (type: 1 - 3)
IPMICFG Usage	-tp info <type>
SAA Usage	GetTpInfo --file <filename>

Feature	Gets a node ID.
IPMICFG Usage	-tp nodeid
SAA Usage	1. GetTpInfo --file <filename> 2. Find XML path: /TwinProCfg/CurrentNodeInfo

Feature	Gets/Sets a system name.
IPMICFG Usage	-tp systemname [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/SystemName 3. Modify the value 4. ChangeTpInfo --file <tp.xml>

Feature	Gets/Sets a system P/N.
IPMICFG Usage	-tp systempn [value]

SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/SystemPN
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Feature	Gets/Sets a system S/N.
IPMICFG Usage	-tp systemsn [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/SystemSN

Feature	Gets/Sets a chassis P/N.
IPMICFG Usage	-tp chassispn [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/ChassisPN

Feature	Gets/Sets a chassis S/N.
IPMICFG Usage	-tp chassisn [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/ChassisSN

Feature	Gets/Sets a backplane P/N.
IPMICFG Usage	-tp backplanepn [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/BackPlanePN

Feature	Gets/Sets a backplane S/N.
IPMICFG Usage	-tp backplanesn [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/BackPlaneSN

Feature	Gets/Sets a chassis location.
IPMICFG Usage	-tp cslocation [value1] [value2] [value3] [value4] [value5]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/ChassisLocation 3. Modify the value 4. ChangeTpInfo --file <tp.xml>

Feature	Gets/Sets a backplane location. (1: Right, 2: Left)
IPMICFG Usage	-tp bplocation [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/BackPlaneLocation 3. Modify the value 4. ChangeTpInfo --file <tp.xml>

Feature	Gets/Sets a BPN ID.
IPMICFG Usage	-tp bpnid [value]

SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Information/BpnId
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Feature	Gets/Sets a BPN revision. (v1 v2 are BCD format)
IPMICFG Usage	-tp bpnrevision [v1] [v2]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Information/BackPlaneRevision

Feature	Gets/Sets node P/N.
IPMICFG Usage	-tp nodepn [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/NodePN

Feature	Gets/Sets node S/N.
IPMICFG Usage	-tp nodesn [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/NodeSN

Feature	Gets/Sets a config ID.
IPMICFG Usage	-tp configid [value]
SAA Usage	1. GetTpInfo --file <tp.xml> 2. Find XML path: /TwinProCfg/CurrentNodeInfo/Configuration/ConfigId 3. Modify the value 4. ChangeTpInfo --file <tp.xml>

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Feature	Updates MCU.
IPMICFG Usage	-tp mcuupdate <file>
SAA Usage	UpdateMultiNodeEC --file <filename>

Feature	Displays FW and BIOS information.
IPMICFG Usage	-summary
SAA Usage	GetSystemInfo

Feature	Gets/Sets a host name.
IPMICFG Usage	-hostname [value]
SAA Usage	-c GetCpldInfo

Feature	Lists information of DCMI capabilities.
IPMICFG Usage	-dcmi cap
SAA Usage	DcmiManage --type STD_DCMI --action GetCap

Feature	Gets the DCMI power readings.
IPMICFG Usage	-dcmi power
SAA Usage	DcmiManage --type STD_DCMI --action GetPowerStatus

Feature	Gets/Sets the DCMI management controller ID string.
IPMICFG Usage	-dcmi ctl [value]

SAA Usage	DcmiManage --type STD_DCMI --action GetMCID DcmiManage --type STD_DCMI --action SetMCID --value <value>
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Feature	Shows BMC maintenance event log.  -y <n years>   Filter event logs within n years -m <n months>   Filter event logs within n months -d <n days>   Filter event logs within n days
IPMICFG Usage	-mel list [option]
SAA Usage	GetMaintenEventLog

Feature	Downloads a BMC maintenance event log to a file.
IPMICFG Usage	-mel download <file>
SAA Usage	GetMaintenEventLog --file <filename>

Feature	Clears a BMC maintenance event log.
IPMICFG Usage	-mel clear
SAA Usage	ClearMaintenEventLog

Feature	Gets/Sets IP address protocol. option: 1   IPv4 option: 2   IPv6 option: 3   Dual
IPMICFG Usage	-addrptl [option]
SAA Usage	1. GetBmcLanCfg --file <file> 2. Find XML path: /BmcLANCfg/LAN/Configuration/IPProtocolStatus

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	3. Modify the value 4. ChangeBmcLanCfg --file <file>
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Feature	Checks the system's lockdown mode.
IPMICFG Usage	-lockdown
SAA Usage	GetLockdownMode

Feature	Gets CPLD version.
IPMICFG Usage	-cpld
SAA Usage	GetCpldInfo

Feature	General file download.
IPMICFG Usage	-generalfiledownload
SAA Usage	FILEDOWNLOAD KCS <FILE_ID> <FILE_NAME>

Feature	General file upload.
IPMICFG Usage	-generalfileupload
SAA Usage	FILEUPLOAD KCS <FILE_ID> <FILE_NAME>

Feature	Clears BMC system event log.
IPMICFG Usage	-clrsyslog
SAA Usage	ClearEventLog --clear_bmc_eventlog

Feature	Compare ROT information.
IPMICFG Usage	-rot
SAA Usage	GetProvisionInfo

Feature	<p>Erase BIOS/BMC backup/staging region.</p> <p>option: 1   Erase BMC backup</p> <p>option: 2   Erase BIOS backup</p> <p>option: 3   Erase BMC staging</p> <p>option: 4   Erase BIOS staging</p>
IPMICFG Usage	-rot erase [option]
SAA Usage	CpldRotManage --action <GetInfo UpdateGolden>

Feature	<p>Gets/Sets LAN interface.</p> <p>Supported parameter for setting:</p> <p>0: Dedicated</p> <p>1: Shared</p> <p>2: Failover</p>
IPMICFG Usage	-lani [option]
SAA Usage	<p>1. GetBmcLanCfg --file &lt;file&gt;</p> <p>2. Find XML path: /BmcLANCfg/LAN/Configuration/LanMode</p> <p>3. Find XML path: /BmcLANCfg/LAN/Configuration/ShareLan (If exists)</p> <p>4. Modify the values</p> <p>4. ChangeBmcLanCfg --file &lt;file&gt;</p>

Feature	Shows network link status.
IPMICFG Usage	-linkstatus



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SAA Usage	<ol style="list-style-type: none"><li>1. GetBmcLanCfg --file &lt;file&gt;</li><li>2. Find XML path: /BmcLANCfg/LAN/Configuration/Link</li></ol>
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## 6. SMCIPMITool/IPMICFG migration sample script

In this chapter, you are guided through migrating from SMCIPMITool/IPMICFG to SAA. While Chapter 4 and Chapter 5 list equivalent command usages, the most significant changes is the shift from file mode to command mode.

Here are the key differences:

- SAA uses commands like `GetBmcLANCfg` and `ChangeBmcLanCfg` to manage all BMC LAN settings in a single XML configuration file.
- SMCIPMITool and IPMICFG use command mode to configure individual BMC LAN settings.

Sample scripts are also provided for BMC LAN mode migration in both Linux and Windows environments. They are included in the migration guide package.

- `SMCIPMITool2SAA.sh`
- `IPMICFG2SAA.sh`
- `SMCIPMITool2SAA.bat`
- `IPMICFG2SAA.bat`

To set up the scripts, follow these steps:

1. The scripts use XMLStarlet, an open-source command-line utility for XML manipulation (detailed in SAA user guide Appendix F).
2. Before running the scripts, adjust the following system-dependent variables:
  - `SAA_PATH`: Set to your SAA installation path
  - `XMLSTARLET_PATH`: Set to your XMLStarlet installation path
  - For SMCIPMITool: Set `IP`, `USER`, and `PASSWORD` for the managed BMC
  - For IPMICFG: No need to set `IP`, `USER`, and `PASSWORD` (in-band usage only)

To use the scripts to migrate your BMC LAN configurations from SMCIPMITool/IPMICFG to SAA:

1. To retrieve a specific BMC LAN setting:

- Specify its XML path for XMLStarlet to locate it
  - Example: LAN\_MODE\_XMLPATH = "/BmcLANCfg/LAN/Configuration/LanMode" for BMC LAN mode
2. To modify a specific BMC LAN setting:
- Specify both the XML path and the target value
  - Example: LAN\_MODE\_DEDICATED = "Dedicated" (can be set to "Shared" or "Failover" as needed)

## 7. New Commands

The new commands for SAA 1.0.0 are listed in the following tables.

SAA 1.0.0	
Command Group	Command
Health Management	AlertManage, TasManage, SuperDiag, CheckSelfTest, HDTService
System Management	GetFanMode, SetFanMode, GetSystemInfo, GetFirmwareInventoryInfo, ClearCMOS
BIOS Management	GetBootOption, SetBootOption, GetBiosPostCode, GetBiosPostCode
BMC Management	SnmpManage, GetSessionInfo, BmcHostName, BmcWatchDog
System Event Log	None
CMM Management	BladePsuManage, BladeSummary, BladePsuManage, GetBladeSwitchInfo (Rename from GetSwitchInfo)
Storage Management	GetSmartData, GetSasExpanderInfo, UpdateSasExpander
Power Management	DcmiManage, PowerPolicy, GetAcpiPowerStatus, GetAiomStandbyPower, SetAiomStandbyPower
PCIe-Switch Management	None
Applications	SOL, FindBmcDevices, FoundBmcDevices, Shell, Prompt, RemoteConsole
GPU Management	None

CPLD Management	None
FPGA Management	None
NIC Management	None
Multi-Node Management	None
VM Management	None
NM Management	NmMeManage, NmCpuManage, NmCupsManage, GeneralNmManage, BmcNmManage
Security Management	CmmRotManage
MCU Management	None

The new commands for SAA 1.1.0 are listed in the following tables.

<b>SAA 1.1.0</b>	
<b>Command Group</b>	<b>Command</b>
Health Management	None
System Management	None
BIOS Management	None
BMC Management	None
System Event Log	None
CMM Management	UpdateDummySwitch
Storage Management	None
Power Management	GetPsFruInfo,
PCIe-Switch Management	None
Applications	GetUSBHostControllerInfo, UpdateUSBHostController, RemoteScreenshot
GPU Management	None
CPLD Management	GetMidplaneSbbCpldInfo, UpdateMidplaneSbbCpld, GetNICCpldInfo, UpdateNICCpld

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FPGA Management	None
NIC Management	None
Multi-Node Management	None
VM Management	None
NM Management	None
Security Management	None
MCU Management	None

## 8. New Command Usage

The changes in command usage for SAA 1.0.0 are outlined in the following tables.

SAA 1.0.0	
Command	Usage changes
GetMultiNodeEcInfo UpdateMultiNodeEc	Support In-Band usage for GetMultiNodeEcInfo and UpdateMultiNodeEc commands.
GetPCleSwitchInfo UpdatePCleSwitch	Support remote in-band usage for GetPCleSwitchInfo and UpdatePCleSwitch commands.
LoadDefaultBmcCfg	Support Remote_RHI usage for LoadDefaultBmcCfg command.
RHI management script	Add scripts to activate and deactivate Redfish Host Interface. (1) saa_activate_RHI.bat/saa_activate_RHI.sh to enable RHI (2) saa_deactivate_RHI.bat/saa_deactivate_RHI.sh to disable RHI (3) saa_wrapper_RHI.bat/saa_wrapper_RHI.sh to execute SAA command with RHI control If RHI is enabled beforehand, then execute SAA command directly If RHI is disabled beforehand, enable RHI before executing SAA command, then disable RHI
GetEventLog	Support --info, --mfg, --format, --year, --month, --day option
GetGpuLog	Support new command GetGpuLog for HGX_H100 system.
CheckSelfTest	Support new command CheckSelfTest.
HDTService	Support new command HDTService.
UpdateGpu	Support numeric type of --item option for UpdateGpu command.

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The changes in command usage for SAA 1.1.0 are outlined in the following tables.

SAA 1.1.0	
Command	Usage changes
SetPowerAction	1. Support OOB AC Cycle on X14 platform.  2. Support in-band AC cycle through BMC for SetPowerAction command.
KmsManage,  SetBiosPassword,  SetHttpBoot,  SecureEraseDisk and  UpdatePMem	Support in-band usage for KmsManage, SetBiosPassword, SetHttpBoot, SecureEraseDisk and UpdatePMem commands on ARM64 platform.
TpmManage	Remove option --disable_dtpm support of TpmManage command from 14th generation Intel platform. 14th generation Intel platform only supports TPM 2.0 module and is always enabled if installed.

## 9. Basic User Interface Changes

- The UI changes related to SAA 1.0.0 are marked in **RED** in the table.
- The UI changes related to SAA 1.1.0 are marked in **BLUE** in the table.

System Management	
Commands	Long Options
GetFruInfo	<p><b>--file &lt;file name&gt; (Optional)</b> Saves the dumped FRU data to a file.</p> <p><b>--overwrite (Optional)</b> Overwrites the output file.</p> <p><b>--showall (Optional)</b> Gets all FRU information from managed system. Gets all FRU info from the managed system.</p> <p><b>--file_only (Optional)</b> Works with the --file option, and only reads FRU information from the input dumped FRU binary file.</p> <p><b>--dump (Optional)</b> Works with the --file option, and dumps FRU data.</p> <p><b>--format &lt;file format&gt; (Optional)</b> Works with the --file and --dump options to download FRU data to file in one of the following specified formats: BINARY = Binary format TEXT = Text format If the --format option is not provided, the default format is BINARY.</p> <p><b>--dev_id &lt;Device ID&gt;(Optional)</b> Gets more FRUs from CMM.</p>



System Management	
Commands	Long Options
	<p>FRU ID: [1-19] or "ALL"</p> <p>1 = CMM Master</p> <p>2 = CMM Middle Plane</p> <p>3 = CMM Switch(A1)</p> <p>4 = CMM Switch(A2)</p> <p>5 = CMM Switch(B1)</p> <p>6 = CMM Switch(B2)</p> <p>7 = CMM PSU(A1)</p> <p>8 = CMM PSU(A2)</p> <p>9 = CMM PSU(A3)</p> <p>10 = CMM PSU(A4)</p> <p>11 = CMM PSU(B1)</p> <p>12 = CMM PSU(B2)</p> <p>13 = CMM PSU(B3)</p> <p>14 = CMM PSU(B4)</p> <p>15 = CMM FAN(1)</p> <p>16 = CMM FAN(2)</p> <p>17 = CMM FAN(3)</p> <p>18 = CMM FAN(4)</p> <p>19 = CMM Slave</p>
RestoreFruInfo	<p><b>--file &lt;file name&gt;</b></p> <p>Reads the dumped FRU file.</p> <p><b>--format &lt;file format&gt; (Optional)</b></p> <p>Works with the --file option to read a FRU file in one of the following specified formats:</p> <p>BINARY = Binary format</p> <p>TEXT = Text format</p> <p>If the --format option is not provided, the default format is</p>

System Management	
Commands	Long Options
	<p>BINARY.</p> <p><b>--individually (Optional)</b></p> <p>Restores each BMC with the corresponding FRU info file individually.</p>
ChangeFruInfo	<p><b>--item &lt;item name&gt;</b></p> <p>Updates the FRU information with given FRU field.</p> <p>CT = Chassis Type</p> <p>CP = Chassis Part Number</p> <p>CS = Chassis Serial Number</p> <p>BDT = Board Mfg. Date/Time ("YYYY/MM/DD HH:MM")</p> <p>BM = Board Manufacturer</p> <p>BPN = Board Product Name</p> <p>BS = Board Serial Name</p> <p>BP = Board Part Number</p> <p>PM = Product Manufacturer</p> <p>PN = Product Name</p> <p>PPM = Product Part/Model Number</p> <p>PV = Product Version</p> <p>PS = Product Serial Number</p> <p>PAT = Asset Tag</p> <p>ALL = All Fields</p> <p><b>--value &lt;assignment value&gt;</b></p> <p>Updates the value of the given FRU field.</p> <p>If the item is ALL, the format is</p> <p>"&lt;CT&gt;,&lt;CP&gt;,&lt;CS&gt;,&lt;BDT&gt;,&lt;BM&gt;,&lt;BPN&gt;,&lt;BS&gt;,&lt;BP&gt;,&lt;PM&gt;,&lt;PN&gt;,&lt;PPM&gt;,&lt;PV&gt;,&lt;PS&gt;,&lt;PAT&gt;"</p> <p><b>--fru_version &lt;FRU version&gt;</b></p> <p>Updates the FRU version.</p>

BIOS Management	
Commands	Long Options
UpdateBios	<p><b>--file &lt;file name&gt;</b> Updates the BIOS with the given BIOS image file.</p> <p><b>--reboot (Optional)</b> Forces the managed system to reboot or power up after operation.</p> <p><b>--individually (Optional)</b> Individually updates each BIOS with its corresponding image file.</p> <p><b>--flash_smbios (Optional)</b> Overwrites and resets the SMBIOS data. This option is used only for specific purposes. Unless you are familiar with SMBIOS data, do not use this option.</p> <p><b>--preserve_mer (Optional)</b> Preserves the ME firmware region. This option is used only for specific purposes. Unless you are familiar with ME firmware image, do not use this option. (Not available on X12 and later RoT systems.)</p> <p><b>--preserve_setting (Optional)</b> Preserves BIOS configurations. This option is used only for specific purposes. Unless you are familiar with BIOS configurations, do not use this option.</p> <p><b>--erase_OA_key (Optional)</b> Erases OA key.</p> <p><b>--backup (Optional)</b> Backs up the current BIOS image. (Only supported by the RoT systems.)</p> <p><b>--forward (Optional)</b> Confirms the Rollback ID and upgrades to the next revision.</p> <p><b>--staged &lt;action&gt; (Optional)</b> Sets action to: 1 = update: The update process will start at the next system boot. 2 = abort: Aborts the previously staged update task.</p>

BIOS Management	
Commands	Long Options
	<p>3 = getinfo: Check whether if there was any pending staged update task.</p> <p><b>--post_complete (Optional)</b> Waits for the managed system's POST to complete after reboot.</p> <p><b>--clear_password (Optional)</b> Clears BIOS password.</p> <p><b>--erase_secure_boot_key (Optional)</b> Erases secure boot key.</p> <p><b>--reset_boot_option (Optional)</b> Resets BIOS boot configurations.</p> <p><b>--restore_optimized_default (Optional)</b> Restores the BIOS configurations to optimize UpdateBios d default settings.</p> <p><b>--redfish (Optional)</b> Enables support for pure Redfish.</p>
ChangeBiosCfg	<p><b>--file &lt;file name&gt;</b> Updates the BIOS with the given configuration file.</p> <p><b>--current_password &lt;current password&gt; (Optional)</b> Checks the current BIOS Administrator password.</p> <p><b>--cur_pw_file &lt;Current Password File&gt; (Optional)</b> The specified file path to read the current password.</p> <p><b>--reboot (Optional)</b> Forces the managed system to reboot or power up after operation.</p> <p><b>--individually (Optional)</b> Updates each BIOS individually with the corresponding configuration file.</p> <p><b>--skip_unknown (Optional)</b> Skips the unknown settings or menus in the BIOS configuration file.</p>

BIOS Management	
Commands	Long Options
	<p><b>--skip_bbs (Optional)</b> Skips the BBS-related menus in the BIOS configuration file.</p> <p><b>--post_complete (Optional)</b> Waits for the managed system's POST to complete after reboot.</p> <p><b>--save_as_user_default (Optional)</b> Saves the current BIOS configuration as user default.</p>
LoadDefaultBiosCfg	<p><b>--current_password &lt;current password&gt; (Optional)</b> Checks the current BIOS Administrator password.</p> <p><b>--cur_pw_file &lt;Current Password File&gt; (Optional)</b> The specified file path to read the current password.</p> <p><b>--reboot (Optional)</b> Forces the managed system to reboot or power up after operation.</p> <p><b>--post_complete (Optional)</b> Waits for the managed system's POST to complete after reboot.</p> <p><b>--clear_bios_eventlog (Optional)</b> Clears the BIOS event log.</p> <p><b>--optimized_default (Optional)</b> Restores the BIOS to default settings with optimization.</p> <p><b>--show (Optional)</b> Shows the BIOS current default status.</p>

BMC Management	
Commands	Long Options
UpdateBmc	<p><b>--file &lt;file name&gt;</b> Updates the BMC with the given BMC file.</p> <p><b>--individually (Optional)</b></p>

BMC Management	
Commands	Long Options
	<p>Updates each BMC with its corresponding image file individually.</p> <p><b>--overwrite_cfg (Optional)</b> Overwrites the current BMC configuration using the factory default values in the given BMC image file.</p> <p><b>--overwrite_sdr (Optional)</b> Overwrites current BMC SDR data. For AMI BMC FW, it must use the --overwrite_cfg option as well.</p> <p><b>--overwrite_ssl (Optional)</b> Overwrites the current BMC SSL configuration.</p> <p><b>--backup (Optional)</b> Backs up the current BMC image. (Only supported by the RoT systems.)</p> <p><b>--forward (Optional)</b> Confirms the Rollback ID and upgrades to the next revision.</p> <p><b>--bmc_boot_check (Optional)</b> Checks if BMC boots up within 16 minutes after update. (Only supported on X12/H12 and later platforms except the H12 non-RoT systems.)</p> <p><b>--redfish (Optional)</b> Enables support for pure Redfish.</p>
LoadDefaultBmcCfg	<p><b>--reboot (Optional)</b> Forces the managed system to reboot or power up after operation.</p> <p><b>--redfish (Optional)</b> Enables support for pure Redfish.</p> <p><b>--clear_user_cfg (Optional)</b> Clears user configuration.</p> <p><b>--preserve_user_cfg (Optional)</b> Preserves user configuration.</p> <p><b>--load_unique_password (Optional)</b> Loads the unique BMC password.</p> <p><b>--load_default_password (Optional)</b> Loads the default BMC password.</p> <p><b>--load_default_lan (Optional)</b></p>

BMC Management	
Commands	Long Options
	<p>Loads the default BMC LAN configuration.</p> <p><b>--load_default_fru (Optional)</b> Loads the default FRU configuration.</p> <p><b>--bmc_boot_check (Optional)</b> Check if BMC is booted up after reset.</p> <p><b>--post_complete (Optional)</b> Waits for the managed system POST complete after rebooting.</p>
TimedBmcReset	<p><b>--immediate &lt;immediately&gt;(Optional)</b> Reset the BMC immediately.</p> <p><b>--delay &lt;BMC reset delay time&gt; (Optional)</b> Delay reset time. Note: Delay time must be set to 1 to 60 minutes.</p> <p><b>--bmc_boot_check (Optional)</b> Check BMC boots up within 4 minutes after reset.</p>
SetBmcUserList	<p><b>--action &lt;action&gt;</b> Sets action to: 1 = Add 2 = Del 3 = Level 4 = SetPwd 5 = Test 6 = EnableType 7 = EnableAccount <b>8 = EditUserName</b></p> <p><b>--user_id &lt;user ID&gt; (Optional)</b> The BMC user ID.</p> <p><b>--user_name (Optional)</b> The BMC user name.</p> <p><b>--user_password &lt;user password&gt; (Optional)</b> The BMC user password.</p> <p><b>--user_privilege &lt;user privilege&gt; (Optional)</b> For privilege level: Administrator: 4 Operator: 3 User: 2</p>

BMC Management	
Commands	Long Options
	<p>Callback: 1</p> <p>No Access: 15</p> <p>The No Access function is not supported.</p> <p><b>--account_type &lt;account type&gt; (Optional)</b> Supported account types for BMC management. 0 = SNMP</p> <p><b>--account_type_status &lt;account type status&gt; (Optional)</b> Manage account type status. 0 = Disable 1 = Enable</p> <p><b>--ap &lt;authentication protocol&gt; (Optional)</b> The authentication protocol. 0 = MD5 1 = SHA</p> <p><b>--pp &lt;private protocol&gt; (Optional)</b> The authentication protocol. 0 = DES 1 = AES</p> <p><b>--ak &lt;authentication key&gt; (Optional)</b> The authentication key.</p> <p><b>--pk &lt; private key&gt; (Optional)</b> The private key.</p> <p><b>--manage_account_type &lt;manage account type&gt; (Optional)</b> Manages the status of account types. The format is "SNMP:Enable,Redfish:Disable." Supported account types are: 1. Redfish 2. SNMP</p>

System Event Log	
Commands	Long Options
GetEventLog	<b>--file &lt;file name&gt; (Optional)</b>



System Event Log	
Commands	Long Options
	<p>Saves the event log to a file. Prints the event log onscreen if the file-saving function is not available.</p> <p><b>--overwrite (Optional)</b> Overwrites the output file.</p> <p><b>--raw_data (Optional)</b> Prints the raw data of each event log.</p> <p><b>--info (Optional)</b> Print the current and total capacity of event log.</p> <p><b>--mfg (Optional)</b> Prints the general information of event logs for the managed system in a style that complies with the manufacturer's assembly line Requirements.</p> <p><b>--year &lt;year&gt; (Optional)</b> Filters event logs within n years.</p> <p><b>--month &lt;month&gt; (Optional)</b> Filters event logs within n months.</p> <p><b>--day &lt;day&gt; (Optional)</b> Filters event logs within n days.</p> <p><b>--format &lt;file format&gt; (Optional)</b> Saves the event log to a file in CSV format.</p> <p><b>--redfish (Optional)</b> Enables pure Redfish support.</p>
ClearMaintenEventLog	<p><b>--gen_log (Optional)</b> Generates a log entry indicating the successful clearing of the maintenance event log.</p>

CMM Management (OOB Only)	
Commands	Long Options
UpdateCmm	<b>--file &lt;file name&gt;</b>

CMM Management (OOB Only)	
Commands	Long Options
	<p>Updates the CMM with the given image file.</p> <p><b>--individually (Optional)</b> Updates each CMM with its corresponding image file individually.</p> <p><b>--overwrite_cfg (Optional)</b> Overwrites the current CMM configurations, including network settings using the factory default values in the given CMM image file. This might cause the IPMI connection to be lost.</p> <p><b>--overwrite_sdr (Optional)</b> Overwrites the current CMM SDR data. (Only supported by the “CSE-947HE2C-R2K05JBOD” system.)</p> <p><b>--overwrite_ssl (Optional)</b> Overwrites the current CMM SSL configuration. (Only supported by the “CSE-947HE2C-R2K05JBOD” system.)</p> <p><b>--backup (Optional)</b> Backs up the current CMM image. (Only supported by the RoT systems.)</p> <p><b>--cmm_boot_check (Optional)</b> Check if CMM is booted up after reset.</p>

Storage Management	
Commands	Long Options
UpdateRaidController	<p><b>--file &lt;file name&gt;</b> Updates the RAID controller with the given RAID image file.</p> <p><b>--controller &lt;Controller&gt;</b> &lt;Broadcom/Marvell&gt; Vendor of RAID controller.</p> <p><b>--type &lt;Type&gt;</b> Specifies RAID type for Broadcom devices. Supported types: HBA HA-RAID</p> <p><b>--dev_id &lt;Device ID&gt;</b> Device ID of RAID controller.</p> <p><b>--reboot (Optional)</b> Forces the managed system to reboot or power up after operation.</p> <p><b>--post_complete (Optional)</b> Waits for the managed system's POST to complete after reboot.</p>
ControlNvme	<p><b>--action &lt;action&gt;</b> Sets action to: 1 = Locate</p>

Storage Management	
Commands	Long Options
	<p>2 = StopLocate 3 = Insert 4 = Remove 5 = Rescan</p> <p><b>--dev_id</b> The NVMe controller ID can be found using the GetNvmeInfo command.</p> <p><b>--group_id</b> The NVMe device group ID can be found using the GetNvmeInfo command.</p> <p><b>--slot</b> The NVMe slot number can be found using the GetNvmeInfo command.</p> <p><b>--no_eject &lt;eject option&gt; (Optional)</b> Setting the eject option. The default value is 'eject'.</p> <p><b>--device_name &lt;HDD Name&gt; (Optional)</b> The NVMe device name, can be found with GetNvmeInfo and GetSmartData command.</p>

GPU Management	
Commands	Long Options
GetGpuLog	<p><b>--file &lt;file name&gt;</b> Saves the GPU log to a file.</p> <p><b>--item &lt;item name&gt;</b> Item type of GPU: 1 = HGX_H100 2 = MI300X</p> <p><b>--type &lt;type&gt;</b> 1 = DebugToken (This option is only used for downloading Debug Token certificate log file.)</p> <p><b>--Overwrite</b> Overwrites the output file.</p>

NM Management	
Commands	Long Options

<b>GeneralNmManage</b>	<p><b>--type&lt;type&gt;</b></p> <p>Manage Intel Node Manager with type:</p> <p>NM20</p> <p>BMC10</p> <p><b>--action &lt;action&gt;</b></p> <p>Manages Intel Node Manager with action for --type NM20:</p> <p>GetNMSDR</p> <p>GetSelTime</p> <p>GetStatistics</p> <p>ResetStatistics</p> <p>GetCapabilities</p> <p>GetVersion</p> <p>GetAlert</p> <p>SetAlert</p> <p>GetTotalPower</p> <p>SetTotalPower</p> <p>SetPowerDrawRange</p> <p>GetSensor</p> <p>GetSummary</p> <p>Manages Intel Node Manager with action for --type BMC10:</p> <p>GetSelTime</p> <p>GetStatistics</p> <p>ResetStatistics</p> <p>GetCapabilities</p> <p>GetVersion</p> <p>GetTotalPower</p> <p>SetTotalPower</p> <p><b>DelTotalPower</b></p>
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	<p>SetPowerDrawRange</p> <p>GetSummary</p> <p>The following options are supported by the corresponding action.</p> <p><b>--mode&lt;Mode&gt; (Optional)</b> Assigns mode.</p> <p><b>--policy_id &lt;Policy ID&gt; (Optional)</b> Assigns policy ID.</p> <p><b>--domain_id &lt;Domain ID&gt; (Optional)</b> Assigns domain ID.</p> <p><b>--trigger_type &lt;Trigger Type&gt; (Optional)</b> Assigns trigger type.</p> <p><b>--value &lt;assignment value&gt; (Optional)</b> Assigns value.</p> <p><b>--range &lt;Range&gt; (Optional)</b> Assigns value range.</p> <p><b>-- per_component_control &lt;Per-component Control&gt; (Optional)</b> Allows for setting the power budget for a chosen domain component.</p> <p><b>-- component_id &lt;Component ID&gt; (Optional)</b> Assigns a component ID.</p>
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Security Management	
Commands	Long Options
BiosRotManage	<p><b>--action &lt;action&gt;</b> Sets action to: 1 = GetInfo 2 = UpdateGolden</p>

	<p>3 = Recover 4 = DownloadEvidence</p> <p><b>--file &lt;file name&gt; (Optional)</b> Works with --action DownloadEvidence. Saves the BIOS evidence to a file.</p> <p><b>--overwrite (Optional)</b> Works with --action DownloadEvidence. Overwrites the output file.</p> <p><b>--reboot (Optional)</b> Works with --action UpdateGolden and Recover. Forces the managed system to reboot or power up after operation.</p> <p><b>--redfish (Optional)</b> Enables support for pure Redfish.</p> <p><b>--post_complete (Optional)</b> Waits for the managed system POST to complete after reboot.</p>
BmcRotManage	<p><b>--action &lt;action&gt;</b> Sets action to: 1 = GetInfo 2 = UpdateGolden 3 = Recover 4 = DownloadEvidence</p> <p><b>--file &lt;file name&gt; (Optional)</b> Works with --action DownloadEvidence. Saves the BMC evidence to a file.</p> <p><b>--overwrite (Optional)</b> Works with --action DownloadEvidence. Overwrites the output file.</p> <p><b>--reboot(Optional)</b> Works with --action UpdateGolden and Recover. Forces the managed system to reboot or power up after operation.</p> <p><b>--redfish (Optional)</b> Enables support for pure Redfish.</p>

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