

GBT Ipmitool Spec

GIGA COMPUTING Software

Document No.:

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0. General Information

0.1. Record of Changes

Table 0-1. Record of Changes

Issue	Date	Authors	Reason for Changes
1.0	2/15/2023	Knut Wang	1 st release.
1.0.1	3/6/2023	Alvin Chunag	2 nd release
1.0.2	3/23/2023	Alvin Chunag	3 nd release
1.0.3	4/24/2023	Debbie Liu	Fix bugs and add some features.
1.0.4	08/14/2023	Alvin Chuang	Fix bugs and add some features.
1.0.5	11/14/2023	Nicole Yan	Fix bugs and add some features.
1.0.8	04/16/2024	Alvin Chuang	Fix bugs and add some features.
1.1.1	08/29/2024	Eason Tsai	Modify SMTP command and support PEF simple setting.
1.1.2	11/07/2024	Eason Tsai	Rework PEF command and support upload CA with PEMChain
1.1.3	12/30/2024	Eason Tsai	Remove SKU, SOLSSH command and web/ssh options of service cmd.
1.1.4	04/29/2025	Eason Tsai	Update Redfish, SEL timezone,BMC healthcheck commands
1.1.5	05/20/2025	Eason Tsai	Add 'bmcutil export diagnostic log' command
1.1.6	07/16/2025	Eason Tsai	Fix bugs and support new bmcutil command
1.1.7	10/30/2025	Eason Tsai	Support to obtain RAID info and clarify command description

0.2. References

NO	Document title
1	
2	

0.3. Acronyms

1. Introduction

The release of the gct ipmitool includes Linux and Windows versions, whose names are gbtipmitool-linux and gbtipmitool-win.

2. Operation

2.1. Multi node scanning

Scan an IP range and keep the BMC list for mass deployment.
Support pre-generated node list file with unique password mapping.

2.1.1 Scanning an IP range

Input:

gbtipmitool -T scan <IP range start> <IP range end>

Note:

Currently only supports a range of 225 nodes, with same IP domain. For example, IP range from 10.1.1.1 to 10.1.1.255

Output:

A list of IP scanned named gbtipmilist.txt generated in log directory, and the structure is [BMC IP],[BMC MAC],[BMC account],[BMC password]

Example:

\$ gbtipmitool-win.exe -T scan 10.1.116.10 10.1.116.50

```
Scan ip range : 10.1.116.10 - 10.1.116.50
Total BMC IP count: 5
```

MAC	IP	Username	Password
D8:5E:D3:04:4F:41	10.1.116.22	admin	password
E0:D5:5E:65:92:20	10.1.116.46	admin	password
D8:5E:D3:45:81:AC	10.1.116.33	admin	password
D8:5E:D3:E3:F4:49	10.1.116.38	admin	password
E0:D5:5E:17:19:7F	10.1.116.23	admin	password

\$ cat log/gbtipmilist.txt

```
10.1.116.22,D8:5E:D3:04:4F:41,admin,password
10.1.116.46,E0:D5:5E:65:92:20,admin,password
10.1.116.33,D8:5E:D3:45:81:AC,admin,password
10.1.116.38,D8:5E:D3:E3:F4:49,admin,password
10.1.116.23,E0:D5:5E:17:19:7F,admin,password
```

2.1.2 Scanning an IP range with unique password file

Input:

gbtipmitool -T scan <IP range start> <IP range end> <unique password file>

Note:

Currently only supports a range of 225 nodes, with same IP domain. For example IP range from 10.1.1.1 to 10.1.1.255

Output:

A list of IP scanned named gbtipmilist.txt generated in log directory, and the structure is [BMC IP]:[BMC MAC]:[BMC account]:[BMC password]

Example:

```
$ cat ./uniquePasswordFile.txt
74:56:3c:03:8c:52,UPD1
50:E5:49:46:1A:DE,UPD2
50:E5:49:46:1A:11,UPD3
```

```
$ gbtipmitool-win.exe -T scan 10.1.116.100 10.1.116.130 ./uniquePasswordFile.txt
```

```
Scan ip range : 10.1.116.100 - 10.1.116.130
./uniquePasswordFile.txt mac scan status
=====
| MAC                | IP                | Status      |
=====
| 74:56:3C:03:8C:52 | 10.1.116.104     | OK          |
| 50:E5:49:46:1A:DE |                   | Not Exist   |
| 50:E5:49:46:1A:11 |                   | Not Exist   |
=====
```

```
Total BMC IP count: 3
```

```
=====
| MAC                | IP                | Username    | Password    |
=====
| 74:56:3C:03:8C:52 | 10.1.116.104     | admin       | UPD1        |
| B4:2E:99:3E:EF:A6 | 10.1.116.122     | admin       | password    |
| 08:00:38:C2:22:F6 | 10.1.116.127     | admin       | password    |
=====
```

```
$ cat log/gbtipmilist.txt
```

```
10.1.116.104,74:56:3C:03:8C:52,admin,UPD1
10.1.116.122,B4:2E:99:3E:EF:A6,admin,password
10.1.116.127,08:00:38:C2:22:F6,admin,password
```

2.1.3 Show the list of scanned nodes

Input:

```
gbtipmitool -T scan list
```

Output:

```
[BMC MAC] | [BMC MAC] | [BMC account] | [BMC password]
```

Example:

```
$ gbtipmitool-win.exe -T scan list
```

```
Total BMC IP count: 3
=====
| MAC                | IP                | Username    | Password    |
=====
| 74:56:3C:03:8C:52 | 10.1.116.104     | admin       | UPD1        |
| B4:2E:99:3E:EF:A6 | 10.1.116.122     | admin       | password    |
| 08:00:38:C2:22:F6 | 10.1.116.127     | admin       | password    |
=====
```

2.2. Multi node operation

Send command to multiple bmc node

Input:

```
gbtipmitool -T multi {-N <Timeout Sec>} <commands>
```

Output:

Only run result will display on screen, the results of single nodes will be saved in log directory with IP as identifier.

Example:

```
$ gbtipmitool-win.exe -T multi chassis get status
10.1.116.62 : OK
10.1.116.68 : OK
10.1.116.72 : OK
```

```
$ cat log/2023-02-14.log
[9:50:22:856] 10.1.116.62: System Power: Off
[9:50:23:897] 10.1.116.68: System Power: On
[9:50:23:954] 10.1.116.72: System Power: Off
```

2.3. Single node operation

Sending command to single bmc node

Input:

```
gbtipmitool -H <BMC IP> -U <BMC account> -P <BMC password> {-N <Timeout Sec>} {-D} <commands>
```

Note:

-D: Controls whether logs are saved. By default, logs are not saved.

Output:

Result same as following supported commands.

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password chassis get status
10.1.116.68
System Power : On
```

2.4. Read version of Gbtipmitool

Input:

```
gbtipmitool -v
```

Output:

Version: [version string]

Example:

```
$ gbtipmitool-win.exe -v
gbtipmitool version 1.0.8
```

3. Common

3.1. Release

Input:

gbtipmitool common freetoken

Note:

Release the token in use.

Output:

No output

Example:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password common freetoken

4. CMC

4.1. Get nodelist

Input:

gbtipmitool cmc get nodelist

Output:

[Position] : [BMC IPv4] | [BMC MAC]

Example:

\$ gbtipmitool-win.exe -H 192.168.100.117 -U admin -P password cmc get nodelist

192.168.100.117

```
1      :  
    BMC IPv4: 192.168.100.57  
    BMC MAC: 10:ff:e0:58:70:44  
2      :  
    BMC IPv4: 192.168.100.11  
    BMC MAC: 10:ff:e0:58:70:48  
3      :  
    BMC IPv4: 192.168.100.38  
    BMC MAC: 10:ff:e0:58:71:10  
4      :  
    BMC IPv4: 192.168.100.49  
    BMC MAC: 10:ff:e0:58:70:4c
```

5. Chassis

Set node chassis power state.

5.1. Get chassis status

Input:

gbtipmitool chassis get status

Output:

[BMC IP] | [System Power]: [On/Off]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password chassis get status
10.1.116.68
System Power      : On
```

5.2. Get chassis identify

Input:

gbtipmitool get chassis identify

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password chassis get identify
10.1.116.82
IndicatorLED      : Off
```

5.3. Get chassis policy

Input:

gbtipmitool chassis get policy

Output:

[BMC IP] | [PowerRestorePolicy]: [always-on/always-off/previous]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password chassis set policy always-on
10.1.116.82
PowerRestorePolicy : previous
```

5.4. Get chassis bootdev

Input:

gbtipmitool chassis get bootdev

Note:

The option may vary depends on different models

Output:

[BMC IP] | [BootSourceOverrideEnabled]: [Once/Continuous/Disabled]
[BootSourceOverrideMode]: [UEFI/Legacy]
[BootSourceOverrideTarget]: [BootSource target value]
[BootSourceOverrideEnabled@AllowableValues]: [BootSource allow enable value]
[BootSourceOverrideMode@AllowableValues]: Legacy/UEFI
[BootSourceOverrideTarget@AllowableValues]: [BootSource allow target value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password chassis get bootdev  
10.1.116.82
```

```
BootSourceOverrideEnabled : Disabled
```

```
BootSourceOverrideMode : Legacy
```

```
BootSourceOverrideTarget : None
```

```
BootSourceOverrideEnabled@AllowableValues : Disabled/Once/Continuous
```

```
BootSourceOverrideMode@AllowableValues : Legacy/UEFI
```

```
BootSourceOverrideTarget@AllowableValues :
```

```
Safe/None/Pxe/Floppy/Cd/Usb/Hdd/BiosSetup/Utilities/UefiShell/UefiTarget/SDCard/UefiHttp/RemoteDrive/UefiB  
ootNext
```

5.5. Set chassis power control

Input:

```
gbtipmitool chassis set [on/off/cycle/reset/diag/soft]
```

Note:

"cycle": If host is in the power off state, running cycle command will transition to a power on state.

"reset": If host is in the power off state, running reset command will transition to a power on state.

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password chassis set on  
10.1.116.68
```

```
Result      : OK
```

5.6. Set chassis identify

Input:

```
gbtipmitool set chassis identify [on/off]
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password chassis set identify on  
10.1.116.82
```

```
Result      : OK
```

5.7. Set chassis policy

Input:

```
gbtipmitool chassis set policy [always-on/previous/always-off]
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password chassis set policy always-on  
10.1.116.82
```

```
Result      : OK
```

5.8. Set chassis bootdev

Input:

gbtipmitool chassis set bootdev [None/Pxe/...] [Legacy/UEFI] [Disabled/Once/Continuous]

Note:

The option may vary depends on different models

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password chassis set bootdev None Legacy Once
10.1.116.82
Result      : OK
```

5.9. Chassis selftest

input:

gbtipmitool chassis selftest

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password chassis selftest
10.1.116.82
Result      : OK
```


6. FRU

Get FRU data.

6.1. Get FRU info

input:

gbtipmitool fru print [0/1/2/3/4/5/6/all]

Output:

[BMC IP] | [Fru item]: [Value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password fru print 0
10.1.116.82
```

```
Chassis Type   : Main Server Chassis
Chassis Part Number : 01234567
Chassis Serial  : 01234567890123456789AB
Board Mfg Date  : Tue Nov 29 23:21:00 2022
Board Mfg       : GIGABYTE
Board Product   : MZ92-FS2-00
Board Serial    : 01234567890123456789AB
Board Part Number : 123456789AB
Board Extra     : NULL
Product Manufacturer : GIGABYTE
Product Name     : MZ92-FS2-00
Product Part Number : 0000000000001
Product Version  : 1
Product Serial   : 01234567890123456789AB
Product Asset Tag : 01234567890123456789AB
```

7. SEL

Send SEL related command

7.1. Get SEL info

Input:

gbtipmitool sel info

Output:

[BMC IP] | [Sel item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel info
10.1.116.82
Version      : 1.5 (v1.5, v2 compliant)
Entries      : 199
Free Space    : 14814
Percent Used  : 18%
Last Add Time : Sun Jan 01 2012 08:00:01 GMT+0800 (GMT+08:00)
Last Del Time : Thu Jan 01 1970 16:00:00 GMT+0800 (GMT+08:00)
Overflow      : false
Supported Cmds : DeletePartial AddReserveGet Alloc Info
# of Alloc Units : 1022
Alloc Unit Size : 18
# Free Units    : 823
Largest Free Blk : 823
Max Record Size : 1
```

7.2. Get SEL list

Input:

gbtipmitool sel list

Output:

[BMC IP] | [#] | [date] | [time] | [sensor number] | [sensor name] | [Log]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel list
10.1.116.82
1      : Normal | Sat Jan 01 2000 08:01:49 GMT+0800 | 0xe4 | processor | CPU0_Status | BMC Event :
        Processor Presence detected was asserted | asserted
2      : Normal | Sat Jan 01 2000 08:02:04 GMT+0800 | 0xe7 | power_supply | PS2_Status | BMC Event :
        Presence detected was asserted | asserted
```

7.3. Get SEL list (display with raw)

Input:

gbtipmitool sel list raw

Output:

[BMC IP] | [SEL ID] | [Raw list]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel list raw
10.1.116.82
1      : 0x02 0x00 0x01 0x00 0x02 0x8c 0x43 0x6d 0x38 0x20 0x00 0x04 0x07 0xe4 0x6f 0x07 0xff 0xff 0x00
2      : 0x03 0x00 0x02 0x00 0x02 0x95 0x43 0x6d 0x38 0x20 0x00 0x04 0x07 0xe4 0x6f 0x07 0xff 0xff 0x00
```

7.4. Clear SEL list

Input:

gbtipmitool sel clear

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel clear
10.1.116.82
Result      : OK
```

7.5. Delete specific SEL

Input:

gbtipmitool sel delete <sel id>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel delete 1
10.1.116.82
Result      : OK
```

7.6. Export SEL list

Input:

gbtipmitool sel list export

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel list export
The dump file is stored in output directory as 10.1.116.82_2025-01-10_19-51-43_selhex.txt
10.1.116.82
Result      : OK
```

7.7. BMC system time

7.7.1 GET SEL time

Input:

gbtipmitool sel time get

Note:

This returns system time of BMC

Output:

[BMC IP] | ["Time"]: [date time in below format]
01/06/2023 03:00:44

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel time get
10.1.116.82
Time        : 01/04/2012 16:55:50
```

7.7.2 Modify SEL time

Input:

gbtipmitool sel time set <mm/dd/yyyy hh:mm:ss>

Note:

This set system time of BMC

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel time set 01/04/2022 16:55:50
10.1.116.82
Result      : OK
```

7.8. BMC system timezone

7.8.1 Get SEL timezone

Input:

gbtipmitool sel timezone get

Note:

This returns system timezone of BMC

Output:

[BMC IP] | [Result]: [Timezone]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel timezone get
10.1.116.82
Result      : Asia/Taipei
```

7.8.2 Modify SEL timezone

Input:

gbtipmitool sel timezone set <GMT timezone>

Note:

Only support GMT format

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sel timezone set GMT+3
10.1.116.82
Result      : OK
```

8. Sensor

8.1. Get sensor list

Input:

gbtipmitool sensor list

Output:

[BMC IP] | [Sensor name] | [Reading] | [Status ok/error]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password sensor list

10.1.116.82

```

CPU0_TEMP      : 49.000 | deg_c | cr   | na   | na   | na   | 20.000 | 25.000 | na
DIMMG0_TEMP    : 29.000 | deg_c | ok   | na   | na   | na   | 85.000 | 87.000 | na
DIMMG1_TEMP    : na     | deg_c | na   | na   | na   | na   | 85.000 | 87.000 | na
BP_TEMP        : 29.000 | deg_c | ok   | na   | na   | na   | 96.000 | 99.000 | na
M2_G0_TEMP     : 28.000 | deg_c | ok   | na   | na   | na   | 92.000 | 96.000 | na
Slot1_GPU0     : na     | deg_c | na   | na   | na   | na   | 92.000 | 96.000 | na
Slot3_GPU1     : na     | deg_c | na   | na   | na   | na   | 92.000 | 96.000 | na
SLOT7_TEMP     : na     | deg_c | na   | na   | na   | na   | 100.000 | 105.000 | na
SLOT8_TEMP     : na     | deg_c | na   | na   | na   | na   | 100.000 | 105.000 | na
PSU1_HOTSPOT   : 56.000 | deg_c | ok   | na   | na   | na   | 105.000 | 110.000 | na
PSU2_HOTSPOT   : 31.000 | deg_c | ok   | na   | na   | na   | 102.000 | 105.000 | na
NVMeG0_TEMP    : na     | deg_c | na   | na   | na   | na   | 75.000 | 82.000 | na
P_12V          : 11.960 | volts | nc   | na   | 10.595 | 13.130 | 13.195 | 13.845 | na
P_5V           : 4.978  | volts | ok   | na   | 4.235  | 4.510  | 5.500  | 5.775  | na
P_3V3          : 3.293  | volts | ok   | na   | 2.803  | 2.960  | 3.626  | 3.802  | na
P_VBAT         : 3.077  | volts | ok   | na   | 2.549  | 2.725  | na     | na     | na
P_VDD_SOC      : 0.820  | volts | ok   | na   | 0.630  | 0.670  | 1.320  | 1.380  | na
P_VDD_CORE_0   : 1.000  | volts | ok   | na   | 0.460  | 0.490  | 1.650  | 1.700  | na
P_VDD_CORE_1   : 1.000  | volts | ok   | na   | 0.460  | 0.490  | 1.650  | 1.700  | na
P_VDDIO        : 1.098  | volts | ok   | na   | 0.764  | 0.813  | 1.323  | 1.382  | na
P_VDD_18_SUS   : 1.823  | volts | ok   | na   | 1.529  | 1.617  | 1.980  | 2.068  | na
P_VDD_11       : 1.120  | volts | ok   | na   | 0.940  | 0.990  | 1.210  | 1.270  | na
VCCIN_PO_TMP   : 36.000 | deg_c | ok   | na   | na     | na     | 115.000 | 120.000 | na
BPB_FAN_1A     : na     | rpm   | na   | na   | 750.000 | 1050.000 | na     | na     | na
BPB_FAN_2A     : na     | rpm   | na   | na   | 750.000 | 1050.000 | na     | na     | na
BPB_FAN_3A     : na     | rpm   | na   | na   | 750.000 | 1050.000 | na     | na     | na
BPB_FAN_4A     : na     | rpm   | na   | na   | 750.000 | 1050.000 | na     | na     | na
SEL            : 0x0    | discrete | 0x0480 | na   | na     | na     | na     | na     | na
CPU0_Status    : 0x0    | discrete | 0x8080 | na   | na     | na     | na     | na     | na
PS1_Status     : 0x0    | discrete | 0x0180 | na   | na     | na     | na     | na     | na
PS2_Status     : 0x0    | discrete | 0x8980 | na   | na     | na     | na     | na     | na
PhysicalSecurity : 0x0    | discrete | 0x0080 | na   | na     | na     | na     | na     | na
SYS_POWER      : 75.000 | watts | ok   | na   | na     | na     | na     | na     | na
Watchdog       : 0x0    | discrete | 0x0080 | na   | na     | na     | na     | na     | na

```

9. User

9.1. Get user summary

Input:

gbtipmitool user summary <channel number 0~7>

Output:

[BMC IP] | [User item]: [status]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user summary 1
10.1.116.82
Maximum IDs      : 16
Enable User Count : 1
Fixed Name Count : 1
```

9.2. Get user list

Input:

gbtipmitool user list

Output:

[BMC IP] | [user id] | [name]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user list
10.1.116.82
1          : admin Administrator
```

9.3. Add user

input:

gbtipmitool user add <username> <password> <Administrator/Operator/ReadOnly>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user add test testtest Administrator
10.1.116.82
Result      : OK
```

9.4. Add user with snmp setting

input:

gbtipmitool user add <username> <password> <Administrator/Operator/ReadOnly> --snmp
<SHA256/SHA384/SHA512> <DES/AES> <ReadOnly/ReadWrite>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user add user6 passowrd Administrator --snmp SHA256
DES ReadOnly
10.1.116.82
Result      : OK
```

9.5. Modify user name

Input:

gbtipmitool user set name <user id> <user name>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user set name 4 test1
10.1.116.82
Result      : OK
```

9.6. Modify user password

input:

gbtipmitool user set password <user id> <password>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user set password 4 testtest1
10.1.116.82
Result      : OK
```

9.7. Modify user permission

input:

gbtipmitool user set role <user id> <Administrator/Operator/ReadOnly>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user set role 4 Administrator
10.1.116.82
Result      : OK
```

9.8. Modify user snmp setting

input:

gbtipmitool user set snmp <user id> <SHA256/SHA384/SHA512> <DES/AES> <ReadOnly/ReadWrite>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user set snmp 5 SHA256 DES ReadOnly
10.1.116.82
Result      : OK
```

9.9. Disable user

input:

gbtipmitool user set disable <user id>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user set disable 4
10.1.116.82
Result      : OK
```

9.10. Enable user**input:**

gbtipmitool user set enable <user id>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user set enable 4
10.1.116.82
Result      : OK
```

9.11. Delete user**input:**

gbtipmitool user delete <user id>/snmp <user id>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user delete 4
10.1.116.82
Result      : OK
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password user delete snmp 4
10.1.116.82
Result      : OK
```


10. DCMI

Send power limit management command.

10.1. Get power reading

Input:

gbtipmitool dcmi power reading

Output:

[BMC IP] | [System Power]: [watt]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password dcmi power reading
```

10.1.116.68

Current power consumption : 105 W

Minimal power consumption : 0 W

Maxmal power consumption : 291 W

Average power consumption : 0 W

10.2. Get power limit setting

Input:

gbtipmitool dcmi power get_limit

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password dcmi power get_limit
```

10.1.116.68

Current Limit State : No Active Power Limit

LimitInWatts : 500

Correction time : 1000

Sampling period : 5

Exception actions : Hard Power Off & Log Event to SEL

10.3. Modify power limit setting

Input:

gbtipmitool dcmi power set_limit <watt>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password dcmi power set_limit 800
```

10.1.116.68

Result : OK

10.4. Deactivate power limit

Input:

gbtipmitool dcmi power deactivate

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password dcmi power deactivate
```

10.1.116.68

Result : OK

11. LAN

11.1. Get setting

Input

gbtipmitool lan get list

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password lan get list
```

10.1.116.68

```
IP Address Source : DHCP
Address          : 10.1.116.68
Subnet Mask      : 255.255.255.0
MAC Address      : D8:5E:D3:6C:DC:3B
Bond Mode        : Dedicated
```

11.2. Get hostmac

Input

gbtipmitool lan get hostmac

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password lan get hostmac
```

10.1.116.68

```
LAN1      : e0:d5:5e:65:a7:15
LAN2      : e0:d5:5e:65:a7:16
LAN3      : 48:b0:2d:63:76:1c
LAN4      : 48:b0:2d:63:76:1d
```

11.3. Use DHCP mode

Input:

gbtipmitool lan set dhcp

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password lan set dhcp
```

10.1.116.68

```
Result      : OK
```

11.4. Use static mode

Input:

gbtipmitool lan set static <address> <subnet mask> <gateway>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password lan set static 192.168.110.212 255.255.254.0
192.168.110.1
10.1.116.68
Result      : OK
```

11.5. Modify network bond

Input:

gbtipmitool lan set bond <shared/dedicated/failover>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password lan set bond failover
10.1.116.68
Result      : OK
```

12. SNMP Trap

12.1. Get SNMP setting list

Input:

gbtipmitool snmp list

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.132 -U admin -P password snmp list
10.1.116.132
1          : RedfishEvent | Redfish | RedfishEvent|https://10.1.116.201/api/Redfish/Events
```

12.2. Set SNMP trap

Input:

```
gbtipmitool snmp add <SNMPv1/SNMPv2c> <destination_addr>
gbtipmitool snmp add SNMPv3 <destination_addr> <snmp_bmc_username>
gbtipmitool snmp add RedfishEvent <destination_addr>
```

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password snmp add SNMPv1 10.116.160
10.1.116.68
Result      : OK

$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password snmp add SNMPv3 10.116.160 user3
10.1.116.68
Result      : OK
```

12.3. Delete SNMP trap

Input:

gbtipmitool snmp delete <SNMP ID>

Note:

The <SNMP ID> needs to be obtained from snmp list command

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.132 -U admin -P password snmp delete 1
10.1.116.132
Result      : OK
```

12.4. Test SNMP trap

Input:

gbtipmitool snmp test

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.132 -U admin -P password snmp test
10.1.116.132
Result      : OK
```

13. SMBIOS

Get smbios information.

13.1. Export SMBIOS dump

Input:

gbtipmitool smbios dump

Output:

[BMC IP] | [Result]: [OK/FAILED]

The dump file is stored in output directory as [bmc ip]_smbios.bin

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password smbios dump
```

```
10.1.116.68
```

```
Result      : OK
```

```
$ ls -la output/10.1.116.68_smbios.bin
```

```
-rw-r--r-- 1 knut.wang 1049089 10187 Feb 14 10:45 log/10.1.116.68_smbios.bin
```

13.2. Get SMBIOS list

Input:

gbtipmitool smbios list

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password smbios list
```

```
10.1.116.68
```

```
CPU Iventory :
```

```
Location      : CPU0
```

```
Name          : Intel(R) Xeon(R) Platinum 8450H
```

```
Manufacturer   : Intel(R) Corporation
```

```
Family         : Xeon
```

```
External Clock : 100.000 MHz
```

```
Max Speed      : 3.500 GHz
```

```
Speed          : 2.000 GHz
```

```
DIMM Iventory :
```

```
Memory Attributes :
```

```
Maximum Capacity : 4096 GB
```

```
Installed Capacity : 512 GB
```

```
Slots Available : 16
```

```
Slots Used      : 16
```

```
Individual Memory Details :
```

```
Location        : DIMM_PO_A0
```

```
Manufacturer     : Micron
```

```
Manufacturer Part Number : MTC20F1045S1RC48BA2
```

```
SerialNumber     : 336CE74E
```

```
Type            : DDR5
```

```
Size             : 32 GB
```

```
Speed           : 4800
```

```
PCI Iventory :
```

```
Add In Card     :
```

```
Type            : System peripheral
```

Slot Number : SLOT1 0000:1A:00.0
Name : Virtual PCIe Placeholder Endpoint
Manufacturer : Broadcom / LSI
Vender ID : 0x1000
Device ID : 0x02B2
Link Width : x16
Link Speed : Gen5

On Board :
Type : Ethernet controller
Name : I350 Gigabit Network Connection
Manufacturer : Intel Corporation
Vender ID : 0x8086
Device ID : 0x1521
Link Width : x1
Link Speed : Gen2

HDD Iventory :
On Board :
Location : SATA Port0
Type : FCH
Name : TS256GSSD370
Manufacturer : Not Specified
Firmware Version : N1126KB
SerialNumber : B709601590
Size : 256.1 GB

NIC Iventory :
On Board :
Location : Port0
Name : I350 Gigabit Network Connection
MAC : 74:56:3c:59:1c:0f

On Board :
Location : Port1
Name : I350 Gigabit Network Connection
MAC : 74:56:3c:59:1c:10

Add In Card :
Location : SLOT_Inter
Name : BCM57416 NetXtreme-E Dual-Media 10G RDMA Ethernet Controller
MAC : 74:56:3c:49:70:93

Add In Card :
Location : SLOT_Inter
Name : BCM57416 NetXtreme-E Dual-Media 10G RDMA Ethernet Controller
MAC : 74:56:3c:49:70:94

14. BMC utils

14.1. Backup settings

Input:

gbtipmitool bmcutil backup <setting id>

0. ALL
1. SNMP
2. KVM
3. NETWORK
4. IPMI
5. NTP
6. AUTHENTICATION
7. SYSLOG

Output:

[BMC IP] | [Result]: [OK/FAILED]

The dump file is stored in log directory as [bmc ip]_bmc-config.bak

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil backup 0
```

10.1.116.68

Result : OK

```
$ ls -la log/10.1.116.68_bmc-config.bak
```

```
-rw-r--r-- 1 knut.wang 1049089 118138 Feb 14 10:57 log/10.1.116.68_bmc-config.bak
```

14.2. Restore settings

Input:

gbtipmitool bmcutil restore <setting file Bmc-config.bak>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil restore log/10.1.116.68_bmc-config.bak
```

10.1.116.68

Result : OK

14.3. Reset to default

Input:

gbtipmitool bmcutil reset default

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil reset default
```

10.1.116.68

Result : OK

14.4. Reset BIOS to default

Input:

gbtipmitool bmcutil reset bios

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil reset bios
10.1.116.68
Result      : OK
```

14.5. Reboot BMC

Input:

gbtipmitool bmcutil reboot bmc

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil reboot bmc
10.1.116.68
Result      : OK
```

14.6. Download last crash screen

Input:

gbtipmitool bmcutil export crash

Output:

[BMC IP] | [Result]: [OK/FAILED]

The dump file is stored in log directory as [bmc ip]_lastCrashScreen.jpg

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil export crash
10.1.116.68
Result      : OK
```

14.7. Export BIOS setup menu settings

Input:

gbtipmitool bmcutil export setup <json>

Note:

If you add the json parameter, it will be printed directly without storing it.

Output:

[BMC IP] | [Result]: [OK/FAILED]

The dump file is stored in output directory as [bmc ip]_biosSettings.json

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil export setup
The dump file is stored in output directory as 10.1.116.68_biosSettings.json.
10.1.116.68
Result      : OK
```

```
$ ls -la output/10.1.116.68_biosSettings.json
-rw-r--r-- 1 knut.wang 1049089 16539 Feb 14 11:04 log/10.1.116.68_biosSettings.json
```

14.8. Import BIOS setup menu settings

Step1. Modify the exported json file “currentValue” field .

```
{
  "AttributeName": "TCG001",
  "DefaultValue": "Enabled",
  "DisplayName": "TPM State",
  "HelpText": "Enable/Disable Security Device. NOTE: Your Computer will reboot during restart in order to change State of the Device.",
  "ReadOnly": false,
  "Type": "Enumeration",
  "Value": [
    {
      "ValueDisplayName": "Disabled",
      "ValueName": "Disabled"
    },
    {
      "ValueDisplayName": "Enabled",
      "ValueName": "Enabled"
    }
  ],
  "CurrentValue": "Enabled"
},
{
  "AttributeName": "TCG006",
  "DefaultValue": "None",
  "DisplayName": "Pending operation",
  "HelpText": "Schedule an Operation for the Security Device. NOTE: Your Computer will reboot during restart in order to change State of Security Device.",
  "ReadOnly": false,
  "Type": "Enumeration",
  "Value": [
    {
      "ValueDisplayName": "None",
      "ValueName": "None"
    },
    {
      "ValueDisplayName": "TPM Clear",
      "ValueName": "TPM Clear"
    }
  ],
  "CurrentValue": "None"
},
}
```

Step2. After modification, you can directly import it back.

Input:

gbtipmitool bmcutil import setup <setup menu.json>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil import setup biosSettings.json
10.1.116.68
Result      : OK
```

14.9. Upload CA cert file

Input:

gbtipmitool bmcutil import ca PEM/PEMchain <cert.crt>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil import ca PEM cert.crt
10.1.116.68
Result      : OK
```

14.10. Get audit log

Input:

gbtipmitool bmcutil get audit log

Output:

[BMC IP] | [time]: [log]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil get audit log
10.1.116.68
ID 1      : Sat Feb 04 2023 07:53:59 GMT+0800 (GMT+08:00) AMID85ED36CDC3C spx_restdservice:
spx_restdservice -- [2124 : 2124 WARNING]https Login Failed from IP:192.168.100.62 user:admin -
ID 2      : Sat Feb 04 2023 07:54:05 GMT+0800 (GMT+08:00) AMID85ED36CDC3C spx_restdservice:
spx_restdservice -- [2124 : 2124 INFO]https Login from IP:192.168.100.62 user:admin
```

14.11. Get BMC FW info**Input:**

```
gbtipmitool bmcutil get bmc fw info
```

Output:

```
[BMC IP] | [item]: [value]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil get bmc fw info
10.1.116.68
BMC Firmware Type : AMI
ASIC Type        : AST2600
Power-On Hours : 5
```

14.12. Get BMC health_check**Input:**

```
gbtipmitool bmcutil get bmc health_check
```

Output:

```
[BMC IP] | [item]: [value]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil get bmc health_check
10.1.116.68
Result      :
[IP address :10.1.116.68]
```

--- 1. vpd sys ---

Model	SerialNumber	UUID
H253-ZA1-AAS1-TS0	GOG9D0912A000302	7DD64000-D6C1-11EF-8000-10FFE070B1DA

--- 2. firmware summary ---

ID	Version
BIOS2	R06_F27
BIOS1	R06_F27
BMCImage1	93.02.06
BMCImage2	93.02.06
MB_CPLD1	11

--- 3. syshealth summary ---

```
PowerState: On
Processors: Normal
Memory: Normal
System: Normal
...
```

14.13. Export BMC health_check**Input:**

gbtipmitool bmcutil export health_check

Output:

[BMC IP] | [Health_check file] : [OK/FAILED]
[SEL hex file] : [OK/FAILED]
[BIOS post code file] : [OK/FAILED]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil export health_check

The dump file is stored in output directory as E263-Z30-AAV1-000_2025-04-11_16-14-22_10.1.116.68_healthCheck.txt

The dump file is stored in output directory as E263-Z30-AAV1-000_2025-04-11_16-14-22_10.1.116.68_selhex.txt

The dump file is stored in output directory as E263-Z30-AAV1-000_2025-04-11_16-14-22_10.1.116.68_postcode.txt

10.1.116.68
Health_check file : OK
SEL hex file : OK
BIOS post code file : OK

14.14. Export diagnostics log**Input:**

gbtipmitool bmcutil export diagnostics log

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil export diagnostics log

The dump file is stored in output directory as 10.1.116.68_SystemDebugLog_30052024_201940.zip

10.1.116.68
Result : OK

14.15. Export system log**Input:**

gbtipmitool bmcutil export system log

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil export system log

The dump file is stored in output directory as 10.1.116.68_2025-10-27_14-24-09_systemLog.csv

10.1.116.68
Result : OK

14.16. Import fanprofile**Input:**

gbtipmitool bmcutil import fan <fanprofile.json>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil import fan fanprofile.json

10.1.116.68

Result : OK

14.17. Import BIOS logo

Input:

gbtipmitool bmcutil import logo <image.jpg/jpeg/bmp>

Note:

Must meet the following conditions,

1. Must be paired with the latest BMC & BIOS firmware.
2. Must be based on the Turin or BirchStream architecture.
3. Upload image must meet the following specifications.
 - Resolution: 1024*768
 - Bits Per Pixel: 16 or 24 or 32
 - Bmp or JPG or JPEG
 - Maximum Logo Compress size <= 52KB

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil import logo image.bmp
```

10.1.116.68

Result : OK

14.18. Switch mLAN port

Input:

gbtipmitool bmcutil switch mlan <front/rear>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password bmcutil switch mlan front
```

10.1.116.68

Result : OK

15. Firmware update

15.1. Local/Remote update

Input:

gbtipmitool update <type> <file> <parameter>

gbtipmitool update MAIN_BMC <rom.ima_enc | file.hpm | remote URI>

Supported parameter:

--overwrite_cfg: All the configs will be preserved during updates except --overwrite_cfg is passed as parameter

--boot_check : Check if BMC boot up successfully after an update

--force_restful: Force using restful api to upgrade

gbtipmitool update BACKUP_BMC <rom.ima_enc | file.hpm | remote URI >

Supported parameter:

--overwrite_cfg: All the configs will be preserved during updates except --overwrite_cfg is passed as parameter

--boot_check : Check if BMC boot up successfully after an update

--force_restful: Force using restful api to upgrade

gbtipmitool update BOTH_BMC <rom.ima_enc | file.hpm | remote URI >

Supported parameter:

--overwrite_cfg: All the configs will be preserved during updates except --overwrite_cfg is passed as parameter

--boot_check : Check if BMC boot up successfully after an update

--force_restful: Force using restful api to upgrade

gbtipmitool update MAIN_BIOS <image.rbu | file.hpm | remote URI >

Supported parameter:

--reboot_cfg: Boot up host (when host is power off during update) or reboot host (when host is power on during update) after update finished

--postcomplete : Check if host boot up successfully after an update

--overwrite_setting: Discard all BIOS settings during update

gbtipmitool update BACKUP_BIOS <image.rbu | file.hpm | remote URI >

Supported parameter:

--reboot_cfg: Boot up host (when host is power off during update) or reboot host (when host is power on during update) after update finished

--postcomplete : Check if host boot up successfully after an update

--overwrite_setting: Discard all BIOS settings during update

gbtipmitool update BOTH_BIOS <image.rbu | file.hpm | remote URI >

Supported parameter:

--reboot_cfg: Boot up host (when host is power off during update) or reboot host (when host is power on during update) after update finished

--postcomplete : Check if host boot up successfully after an update

--overwrite_setting: Discard all BIOS settings during update

gbtipmitool update MB_CPLD <image.rcu | remote URI >

gbtipmitool update BPB_CPLD <image.rcu | remote URI >

gbtipmitool update SCM_CPLD <image.rcu | remote URI >

gbtipmitool update UPLOAD_PEM <pemfile.pem | remote URI >

gbtipmitool update MI300X_SMC <image.pldm | remote URI >

gbtipmitool update H100_HMC <image.fwpkg>

Type:

MAIN_BMC
BACKUP_BMC
BOTH_BMC
MAIN_BIOS
BACKUP_BIOS
BOTH_BIOS
MB_CPLD
BPB_CPLD
SCM_CPLD
UPLOAD_PEM
MI300X_SMC

Note:

To update CMC firmware, use type "MAIN_BMC"

Output:

[BMC IP] | [Update Status]: [0~100%]

Example:

MAIN_BMC / BACKUP_BMC:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password update MAIN_BMC rom_v130418.ima_enc

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password update BACKUP_BMC rom_v130418_backup.hpm

MAIN_BIOS / BACKUP_BIOS:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password update MAIN_BIOS image.rbu

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password update BACKUP_BIOS file.hpm

MB_CPLD / BPB_CPLD:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password update MB_CPLD image.rcu

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password update BPB_CPLD image.rcu

16. BMC firmware version

16.1. MC info

Input:

gbtipmitool mc info

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password mc info
10.1.116.68
```

```
Device ID      : 32
Device Revision : 1
Firmware Revision : 13.05.02
IPMI Version   : 2.0
Manufacturer ID : 15370
Manufacturer Name : Giga Computing
Product ID     : 4168 (0x1048)
Device Available : yes
Provides Device SDRs : yes
Additional Device Support :
    Sensor Device
    SDR Repository Device
    SEL Device
    FRU Inventory Device
    IPMB Event Receiver
    IPMB Event Generator
    Chassis Device
Aux Firmware Rev Info :
    0x2
    0x0
    0x0
    0x0
```


17. SMTP

17.1. Get setting info

Input:

```
gbtipmitool smtp get info
```

Output:

```
[BMC IP] | [item]: [value]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password smtp get info
```

```
10.1.116.68
```

```
Sender Email ID : support@ami.com
```

```
Primary SMTP Support : ON
```

```
Primary Username : admin
```

```
Primary Server IP : 10.1.116.78
```

```
Primary SMTP port : 25
```

```
Primary SMTP Authentication : ON
```

```
Primary SMTP Connection Protocol : None
```

```
Secondary SMTP Support : OFF
```

17.2. Modify setting

Input:

1. Only set primaryServer

```
gbtipmitool smtp set <email> <primaryEnable> <primaryServerIP> <primaryPort> <primaryAuthEnable>  
<primaryUsername> <primaryPassword> <sslTls/startTls/none> <CACertFile> <CertFile> <PrivateKeyFile>
```

2. Set primaryServer and secondaryServer both

```
smtp set <email> <primaryEnable> <primaryServerIP> <primaryPort> <primaryAuthEnable>  
<primaryUsername> <primaryPassword> <sslTls/startTls/none> <CACertFile> <CertFile> <PrivateKeyFile>
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password smtp set test@email.com true 192.168.1.1 465 true  
username password ./sslTls ca_1.pem ./cert_1.pem ./private_1.pem
```

```
10.1.116.68
```

```
Result : OK
```

18. Virtual media

18.1. Get setting and status info

Input:

gbtipmitool vmedia status

Note:

Display the current mounting status of virtual media

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.132 -U admin -P password vmedia status
```

```
10.1.116.132
```

```
Inserted      : false
```

```
TransferProtocolType : NFS
```

```
Image         :
```

```
ImageName     :
```

```
$ gbtipmitool-win.exe -H 10.1.116.132 -U admin -P password vmedia status
```

```
10.1.116.132
```

```
Inserted      : true
```

```
TransferProtocolType : CIFS
```

```
Image         : //10.1.7.224/projects/iso/ubuntu-22.04-desktop-amd64.iso
```

```
ImageName     : ubuntu-22.04-desktop-amd64.iso
```

18.2. Virtual media mount

Input:

gbtipmitool vmedia mount <protocol_type> <iso_url> <user_name> <password>

Note:

Currently supports NFS 、 CIFS 、 HTTP protocol.

NFS and HTTP do not require username and password parameter.

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password vmedia mount nfs
```

```
//10.1.116.96/var/nfsshare/ubuntu2004liveserveramd64.iso
```

```
10.1.116.68
```

```
Result       : OK
```

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password vmedia mount cifs //10.1.7.224/projects/iso/gct-diag/gct_diagnostic_analyzer_v0.7.1.iso <user-name> <password>
```

```
10.1.116.68
```

```
Result       : OK
```

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password vmedia mount http
```

```
//10.1.116.96/ubuntu2004AMD64.iso
```

```
10.1.116.68
```

```
Result       : OK
```

18.3. Virtual media unmount**Input:**

gbtipmitool vmedia unmount

Note:

Currently only supports NFS mount.

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password vmedia unmount
10.1.116.68
Result      : OK
```

19. NTP

19.1. Get setting info

Input:

gbtipmitool ntp get

Output:

[BMC IP] | ["NTP"]: [NTP url]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password ntp get
10.1.116.68
    NTP Server      : time.asia.apple.com
```

19.2. Modify setting

Input:

gbtipmitool ntp set <NTP server1> <NTP server2>

Note:

NTP server2 is optional parameter.

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password ntp set time1.facebook.com time.stdtime.gov.tw
10.1.116.68
    Result         : OK
```

19.3. Disable

Input:

gbtipmitool ntp disable

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password ntp disable
10.1.116.68
    Result         : OK
```

20. IPMI RAW command

***Only supports BMC firmware v13.04.13 and subsequent versions.**

Input:

gbtipmitool raw [raw ipmi request data]

Output:

[BMC IP] | ["Response"] [Raw response data]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.82 -U admin -P password raw 0x06 0x01
10.1.116.82
```

```
Response      : 0x20 0x81 0xd 0x4 0x2 0xbf 0xa 0x3c 0x0 0x77 0x1 0xd 0x0 0x0 0x0
```

Input:

gbtipmitool ipmiinband [raw ipmi request data]

Output:

[BMC IP] | ["Response"] [Raw response data]

Example:

```
$ gbtipmitool-win.exe -T local ipmiinband 0x06 0x01
10.1.116.82
```

```
Response      : 0x20 0x81 0xd 0x4 0x2 0xbf 0xa 0x3c 0x0 0x77 0x1 0xd 0x0 0x0 0x0
```

21. Firmware list of server components

21.1. Get FW list

Input:

```
gbtipmitool fw get list
```

Output:

```
[BMC IP] | [BMC/BIOS/CPLD]: [version]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password fw get list
10.1.116.68
  BMC      : 12.60.19
  MB_CPLD1 : 83
  BIOS     : R24
```

21.2. Get FW active

Input:

```
gbtipmitool fw get active
```

Output:

```
[BMC IP] | [BmcActiveStatus/BiosAcvtiveStatus]: [MAIN/BACKUP]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password fw get active
10.1.116.68
  BmcActiveStatus : MAIN
  BiosAcvtiveStatus : MAIN
```

21.3. Get FW checksum

Input:

```
gbtipmitool fw get checksum
```

Output:

```
[BMC IP] | [BACKUP_BIOS]: [checksum]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password fw get checksum
10.1.116.68
  BACKUP_BIOS : c0f47bff
```

21.4. Get FW preserve setting

Input:

```
gbtipmitool fw get preserve
```

Output:

```
[BMC IP] | [TYPE]: [True/False]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password fw get checksum
10.1.116.68
  SDR      : False
  FRU      : False
  SEL      : False
```

IPMI : False
Network : False
NTP : False
SNMP : False
KVM : False
Authentication : False
Syslog : False
WEB : False
Redfish : False

21.5. Set active BIOS

Input:

gbtipmitool fw set active BIOS <MAIN / BACKUP>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password fw set active BIOS
10.1.116.68
Result : OK
```

21.6. Obtain BACKUP_BIOS version

Input:

gbtipmitool FW obtain BACKUP_BIOS version

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password FW obtain BACKUP_BIOS version
10.1.116.68
Result : OK
```

21.7. Calculate BACKUP_BIOS checksum

Input:

gbtipmitool fw calculate BACKUP_BIOS <image.bin>

Output:

[BMC IP] | [Checksum from BMC]: [checksum]
[Checksum from image]: [checksum]
[Check result]: [Success/Failed]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password fw calculate BACKUP_BIOS /home/eason/MR92-
FS1_F16.bin
10.1.116.68
Checksum from BMC : c0f47bff
Checksum from image : c0f47bff
Check result : Success
```

21.8. Check update file version

Input:

```
gbtipmitool fw check <MAIN_BMC/BACKUP_BMC/BOTH_BMC/MAIN_BIOS/BACKUP_BIOS/BOTH_BIOS>  
<updateFile.zip>
```

Output:

```
[BMC IP] | [Image Version] : [Version string]  
          [Check target]  : [Version string]  
          [Result]        : [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password fw check BOTH_BIOS ./MZ33-DC0_R11_F30_Web.zip  
10.1.116.68  
Image Version : F30, R11_F30  
BIOS          : R11_F30  
BIOS2         : R11_F30  
Result        : OK
```

21.9. Set FW preserve setting

Input:

```
gbtipmitool fw set preserve <0~11> <true/false>
```

```
FW set preserve <setting id> <true/false>  
0:ALL 1:SDR 2:FRU 3:SEL 4:IPMI+Network 5:NTP 6:SNMP  
7:KVM 8:Authentication 9:Syslog 10:WEB 11:Redfish
```

Output:

```
[BMC IP] | [Result] : [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password fw set preserve 0 true  
10.1.116.68  
Result : OK
```


22. Lan6

Get or set IP source(DHCP/Static).

22.1. Get setting info

Input:

```
gbtipmitool lan6 get
```

Output:

```
[BMC IP]
[IP Address Source]: [DHCP/Static]
[Address]          : [IP address]
[Subnet Mask]      : [IP address]
[MAC Address]      : [MAC Address]
```

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password lan6 get
```

```
192.168.100.43
  ipv6              : ON
  IP Address Source : DHCP
  Address           : fd59:dd5e:6cfa:1:21d:aaff:0:42
  MAC Address       : D8:5E:D3:42:9F:11
```

22.2. Modify mode

Input:

```
gbtipmitool lan6 set ipv6 <on/off>
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password lan6 set ipv6 on
```

```
192.168.100.43
  Result          : OK
```

22.3. Modify setting (The IP router must support IPV6)

Input:

```
gbtipmitool lan6 set ipsrc <dhcp/static> <IPv6 index> <IPv6 address> <Subnet prefix length> <IPv6 gateway> <IPv6 router>
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password lan6 set ipsrc static 0
fd59:dd5e:6cfa:1:48ba:3f18:7460:797e 64 fe80::21d:aaff:fe85:8ecc fe80::21d:aaff:fe85:8ecc
```

```
192.168.100.43
  Result          : OK
```

23. RAID

Obtain raid card info.

23.1. Get controller Info

Input:

gbtipmitool RAID Controller Info

Output:

[BMC IP] | [item]: [value]

Example:

\$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password RAID Controller Info

192.168.100.43

```
ID          : 0
controller_id : 0
controller_name : MegaRAID 9580-8i8e (0 )
serial_number  : SPE2802341
package_version : 52.28.0-5452
bios_version   : 7.28.00.0_0x071C0000
uefi_version   : undefined
expander_version : N/A
seeprom_version : undefined
cpld_version   : N/A
pci_vendor_id   : 4096
pci_device_id   : 4322
pci_subvendor_id : 4096
pci_subsystem_id : 16416
roc_temp       : 65
expander_temp   : 255
reserved       : undefined
tmm_status     : 8192
wwn            :
hardware_revision :
cache_size     : 0
total_memory_size : 0
mode          : 0
driver_version  :
vendor_type     : 0
vendor_name     : BRCM
ID             : 1
controller_id   : 1
controller_name : COBP520 (1 )
serial_number   : FW-00000000
package_version : 52.31.0-5771
bios_version    : 7.31.00.0_0x071F0000
uefi_version    : undefined
expander_version : N/A
seeprom_version : undefined
cpld_version    : N/A
pci_vendor_id   : 4096
pci_device_id   : 4326
pci_subvendor_id : 5208
pci_subsystem_id : 64017
roc_temp        : 49
expander_temp   : 255
reserved        : undefined
```

```
tmm_status      : 0
wwn             :
hardware_revision :
cache_size      : 0
total_memory_size : 0
mode            : 0
driver_version   :
vendor_type      : 0
vendor_name      : BRCM
```

23.2. Get storage summary

Input:

gbtipmitool RAID Storage Summary

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password RAID Storage Summary
192.168.100.43
ID          : 0
CONTROLLER_ID : 0
CONTROLLER_NAME : MegaRAID 9580-8i8e (0 )
PHYSICAL_COUNT : 0
LOGICAL_COUNT  : 0
HOTSPARE      : 0
ID          : 1
CONTROLLER_ID : 1
CONTROLLER_NAME : COBP520 (1 )
PHYSICAL_COUNT : 0
LOGICAL_COUNT  : 0
HOTSPARE      : 0
```

23.3. Get physical device Info

Input:

gbtipmitool RAID Physical device Info

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password RAID Physical device Info
192.168.100.43
ID          : 0
CONTROLLER_ID : 0
CONTROLLER_NAME : COBP520 (0 )
DEV_ID      : 5
TYPE        : 1
STATE       : 8
PD_TYPE     : 20480
VENDOR_ID   : NVMe
PRODUCT_ID  : KXD6CRJJ3T84
SERIAL_NUM   : 372292HC103TEY55
SLOT        : 0
PRESENT     : 1
LED_STATUS  : 0
```

```
INTERFACE_TYPE : 5
CACHE          : 0
SPEED          : 131
SIZE           : 3576
BLOCK_SIZE     : 512
LINK_SPEED     : 131
POWER_SATE     : 0
TEMPERATURE    : 69
SMART          : 2
REMOVAL_STATUS : 2
PREDECTIVE_FAIL_COUNT : 0
ROTATION_SPEED : 0
USGAE_INFO     : 0
ARRAY_NUMBER   : 0
...
```

23.4. Get logical device Info

Input:

gbtipmitool RAID Logical device Info

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password RAID Logical device Info
192.168.100.43
ID          : 0
CONTROLLER_ID : 0
CONTROLLER_NAME : COBP520 (0 )
DEV_ID      : 0
TYPE        : 0
STATE       : 3
DEVICE_GROUP : 0
STRIPE_SIZE : 7
ACCESS_POLICY : 0
READ_POLICY  : 0
WRITE_POLICY : undefined
CACHE_POLICY : 0
BGI          : 0
SSD_CACHING  : undefined
PROGRESS     : 0
INITSTATE    : 0
PERCENTAGE   : 0
BAD_CLOCKS   : 0
SIZE         : 7152
ELEMENTS_NUM : 2
ELEMENTS     : (5,0)~(6,0)~
ARRAY_NUMBER : 0
LOGICAL_DRIVE_TYPE : 0
ACCELERATOR_TYPE : 0
```

23.5. Get BBU Info

Input:

gbtipmitool RAID BBU Info

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password RAID BBU Info
```

192.168.100.43

```
ID          : 0
CONTROLLER_ID : 0
CONTROLLER_NAME : MegaRAID 9580-8i8e (0 )
BBU_TYPE     : 0
STATUS       : 0
TEMPERATURE  : 0
VOLTAGE      : 0
CURRENT      : 0

ID          : 1
CONTROLLER_ID : 1
CONTROLLER_NAME : COBP520 (1 )
BBU_TYPE     : 0
STATUS       : 0
TEMPERATURE  : 0
VOLTAGE      : 0
CURRENT      : 0
```

23.6. Get event Log

Input:

gbtipmitool RAID Event Log

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password RAID Physical device Info
```

192.168.100.43

```
ID          : 1
CONTROLLER_ID : 0
CONTROLLER_NAME : MegaRAID 9580-8i8e (0 )
RECORD_ID    : 51
TIMESTAMP    : 1760927603
EVENT_CODE   : 389
EVENT_TYPE   : 6
EVENT_CLASS  : 0
EVENT_DESC   : Host driver is loaded and operational

ID          : 2
CONTROLLER_ID : 0
CONTROLLER_NAME : MegaRAID 9580-8i8e (0 )
RECORD_ID    : 50
TIMESTAMP    : 1760927603
EVENT_CODE   : 44
EVENT_TYPE   : 6
EVENT_CLASS  : 0
EVENT_DESC   : Time established as 10/20/25 2:32:13; (57 seconds since power on)
```

24. DNS

Please mind that after setting host of DNS, network service of the BMC would be restart.

24.1. Get DNS setting

Input:

```
gbtipmitool dns get
```

Output:

```
[DNS Enabled]           : [True / False]
[mDNS Enabled]          : [True / False]
[Host Name Setting]     : [Automatic / Manual]
[Host Name]             : [Hostname]
[BMC Interface]         : [Ethernet Interface]
[Register BMC]          : [True / False]
[Register Method]       : [Nsupdate / DHCP / Hostname]
[TSIG Authentication Enabled] : [True / False]
[Current TSIG Private File Info] : [TSIG info]
[Domain Setting]        : [Automatic / Manual]
[Domain Interface]      : [bond0_v4 / bond0_v6]
[Domain Name Server Setting] : [Automatic / Manual]
[DNS Interface]         : [Ethernet Interface]
[IP Priority]           : [IPv4 / IPv6]
```

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password dns get
```

```
192.168.100.43
```

```
DNS Enabled    : True
mDNS Enabled   : False
Host Name Setting : Automatic
Host Name      : AMI202403290446
BMC Interface   : bond0
Register BMC    : True
Register Method : Nsupdate
TSIG Authentication Enabled : False
Current TSIG Private File Info : Not Available
Domain Setting  : Automatic
Domain Interface : bond0_v4
Domain Name Server Setting : Automatic
DNS Interface   : bond0
IP Priority     : IPv4
```

24.2. Set DNS mode

Input:

```
gbtipmitool dns set <enable/disable>
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password dns set enable
```

```
192.168.100.43
```

```
Result      : OK
```

24.3. Set host

Input:

gbtipmitool dns set host <auto/manual> <hostName>

Output:

[BMC IP] | [Result]: [OK/FAILED]

[Restart BMC]: [Success/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password dns set host auto
```

192.168.100.43

Result : OK

Restart BMC : Success

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password dns set host manual newHostName
```

192.168.100.43

Result : OK

Restart BMC : Success

24.4. Set register

Input:

gbtipmitool dns set register enable <Nsupdate / DHCP / Hostname>

gbtipmitool dns set register disable

Output:

[BMC IP] | [Result]: [OK/FAILED]

[Restart BMC]: [Success/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password dns set register enable Hostname
```

192.168.100.43

Result : OK

It would take 1 minute at least to restart network service.

192.168.100.43

Restart BMC : Success

24.5. Set TSIG

Input:

gbtipmitool dns set TSIG enable <filepath>

gbtipmitool dns set TSIG disable

Output:

[BMC IP] | [Result]: [OK/FAILED]

[Restart BMC]: [Success/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password dns set TSIG disable
```

192.168.100.43

Result : OK

It would take 1 minute at least to restart network service.

192.168.100.43

Restart BMC : Success

24.6. Set domain

Input:

```
gbtipmitool dns set domain auto <bond0_v4 / bond0_v6> server auto <IPv4 / IPv6>
gbtipmitool dns set domain auto <bond0_v4 / bond0_v6> server manual <dns_server1 dns_server2 dns_server3 >
gbtipmitool dns set domain manual <domain name> server auto <IPv4 / IPv6>
gbtipmitool dns set domain manual <domain name> server manual <dns_server1 dns_server2 dns_server3>
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
          [Restart BMC]: [Success/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 192.168.100.43 -U admin -P password dns set domain auto bond0_v4 server auto IPv4
192.168.100.43
Result      : OK
It would take 1 minute at least to restart network service.
192.168.100.43
Restart BMC  : Success
```


25. SOLSSH

25.1. Execute command

Input:

gbtipmitool solssh

Output:

Start to use SOLSSH session

Example:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password solssh

26. UpdateSensor

Send a serial commands for update sensor.

26.1. Update SKU

Input:

```
gbtipmitool UpdateSensor update <sku.zi_> <Options>
```

Supported parameter:

--preserve: The index 0 of FRU will be preserved during updates.

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password UpdateSensor update R263-S33-AAF1-000.zi_  
10.1.116.104  
Result      : OK
```

26.2. Get SKU version

Input:

```
gbtipmitool UpdateSensor version
```

Output:

```
[BMC IP] | [Version]: [SKU version number]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password UpdateSensor version  
10.1.116.104  
Version     : 1695288974
```

27. GPU

Setting and getting pci information from BMC

27.1. Get PCI list

Input:

gbtipmitool get pci_list

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.162 -U admin -P password gpu get pci_list
10.1.116.162
```

```
1      :
    ProductName: ASPEED Graphics Family
    Manufacturer: ASPEED Technology, Inc.
    Class: VGA compatible controller
    SlotDesignation: Onboard
    DeviceID: 0x2000
    VendorID: 0x1A03
    BusNumber: 0x0000
    DeviceNum: 0x0000
    SegmentGroupNumber: 0x0000
    LinkWidth: 0x0001
    LinkSpeed: 0x0002
2      :
    ProductName: I350 Gigabit Network Connection
    Manufacturer: Intel Corporation
    Class: Ethernet controller
    SlotDesignation: Onboard
    DeviceID: 0x1521
    VendorID: 0x8086
    BusNumber: 0x0000
    DeviceNum: 0x0000
    SegmentGroupNumber: 0x0000
    LinkWidth: 0x0004
    LinkSpeed: 0x0002
```

28. GraceUpdate

Send a serial commands for update Grace FW

28.1. Update FWPKG

Input:

```
gbtipmitool graceupdate FWPKG <image.fwpkg>
```

Output:

```
[BMC IP] | [Update Status]: [0~100%]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password graceupdate FWPKG MV13-HD0_F05d_qs_DOT.fwpkg
```

28.2. Update FPGA

Input:

```
gbtipmitool graceupdate FPGA <image.rpd>
```

Output:

```
[BMC IP] | [Update Status]: [0~100%]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password graceupdate FPGA FPGA_starship_0v8A.rpd
```

29. Service

*Only supports kvm, cd-media and hd-media.

29.1. Get service setting

Input:

gbtipmitool service get list

Output:

[BMC IP] | [Service name]: [Status] | [Interfaces] | [Non Secure Port] | [Secure Port] | [Timeout] | [Maximum Session]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password service get list
10.1.116.104
kvm      : Active | bond0 | N/A | 7582 | 1800 | 2
cd-media : Active | bond0 | N/A | 5124 | N/A | 4
hd-media : Active | bond0 | N/A | 5127 | N/A | 4
```

29.2. Get session list

Input:

gbtipmitool service get session <interface>

Output:

[BMC IP] | [Session ID]: [Session Type] | [User ID] | [User Name] | [Client IP] | [Privilege]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password service get session kvm
10.1.116.104
19      : KVM | 2 | admin | 10.1.116.39 | Administrator
```

29.3. Delete session

Input:

gbtipmitool service delete <session id>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password service delete 19
10.1.116.104
Result   : OK
```

29.4. Modify service setting

Input:

gbtipmitool service set active <kvm/cd-media/hd-media> <timeout>

Note:

The timeout parameter is only required when using the remote kvm option.

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password service set active kvm 1800
10.1.116.104
Result      : OK
```

29.5. Deactive service

Input:

gbtipmitool service set deactive <interface>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password service set deactive kvm
10.1.116.104
Result      : OK
```

30. Log

30.1. Get log list

Input:

gbtipmitool log get list

Output:

[BMC IP] | [item]: [value]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password log get list
```

10.1.116.104

Local Log : Enable

Rotate : 0

Remote Log : Disable

Audit Log : Enable

30.2. Enable audit log

Input:

gbtipmitool log enable audit

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password log enable audit
```

10.1.116.104

Result : OK

30.3. Enable local log

Input:

gbtipmitool log enable local <Rotate count>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password log enable local 1
```

10.1.116.104

Result : OK

30.4. Enable remote log

Input:

gbtipmitool log enable remote <UDP/TCP ><Remote Log Server> <Remote Server Port> <CA certificate file>

Note:

The CA certificate file is only required when using the remote TCP option.

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password log remote UDP 10.8.131.144 8443
```

10.1.116.104

Result : OK

30.5. Disable specific log

Input:

gbtipmitool log disable <local/remote/audit>

Output:

[BMC IP] | [Result]: [OK/FAILED]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password log disable audit
10.1.116.104

Result : OK

31. PEF

31.1. Get email setting

Input:

gbtipmitool pef get email

Output:

[BMC IP] | [Account index (User name)]: [email address]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef get email

10.1.116.104

1 (anonymous) :
2 (admin) : testEmail@gigacomputing.com

31.2. Get filter setting

Input:

gbtipmitool pef get filter

Output:

[BMC IP] | [Filter Index]: [Alert Enable] | [Alert Severity] | [Target Sensor] | [Sensor Severity] | [Destination]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef get filter

10.1.116.104

Filter Index	: Alert Enable	Alert Severity	Sensor	Sensor Severity	Destination
1	: Disabled	Critical	All Sensors	Custom	Not defined
2	: Disabled	Non_Critical	All Sensors	Custom	Not defined
3	: Disabled	Critical	All Sensors	Custom	Not defined
4	: Disabled	Non_Critical	All Sensors	Custom	Not defined
5	: Disabled	Critical	All Sensors	Custom	Not defined
6	: Disabled	Non_Critical	All Sensors	Custom	Not defined
7	: Disabled	Critical	All Sensors	Custom	Not defined
8	: Disabled	Non_Critical	All Sensors	Custom	Not defined
9	: Disabled	Critical	All Sensors	Custom	Not defined
10	: Disabled	Non_Critical	All Sensors	Custom	Not defined
11	: Disabled	Critical	All Sensors	Custom	Not defined
12	: Disabled	Non_Critical	All Sensors	Custom	Not defined
13	: Disabled	Critical	All Sensors	Custom	Not defined
14	: Disabled	Critical	All Sensors	Custom	Not defined
15	: Disabled	Critical	All Sensors	Custom	Not defined

31.3. Get destination setting

Input:

gbtipmitool pef get dest

Output:

[BMC IP] | [Dest Index]: [Dest Group ID] | [User Name/SNMP IP]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef get dest

10.1.116.104

Dest Index	: Group ID	Destination
1	: 2	(USER)admin

31.4. Add new filter

Input:

gbtipmitool pef add filter <alert severity> <user name/SNMP IP/dest group ID> <sensor severity> All

Output:

[BMC IP] | [Result]: [Success/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef add filter Monitor admin Critical All
10.1.116.104
Result      : Success
```

31.5. Add new destination

Input:

gbtipmitool pef add dest <Dest Group ID> <user name/SNMP IP>

Output:

[BMC IP] | [Result]: [Success/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef add dest 8 admin
10.1.116.104
Result      : Success
```

31.6. Modify filter setting

Input:

gbtipmitool pef set filter <index> <alert severity> <user name/SNMP IP/dest group ID> <sensor severity> All

Output:

[BMC IP] | [Result]: [Success/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef set filter 16 Monitor admin Non_Critical all
10.1.116.104
Result      : Success
```

31.7. Modify destination setting

Input:

gbtipmitool pef set dest <index> <Dest Group ID> <user name/SNMP IP>

Output:

[BMC IP] | [Result]: [Success/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef set dest 1 9 admin
10.1.116.104
Result      : Success
```

31.8. Modify email setting

Input:

gbtipmitool pef set email <email address>

Output:

[BMC IP] | [Modify User Email]: [Success/FAILED]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef set email test2@gigacomputing.com
10.1.116.104
Modify User Email : Success
```

31.9. Delete filter**Input:**

```
gbtipmitool pef delete filter <index>
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef delete filter 16
10.1.116.104
Result      : OK
```

31.10. Delete destination**Input:**

```
gbtipmitool pef delete dest <index>
```

Output:

```
[BMC IP] | [Result]: [Success/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password pef delete dest 1
10.1.116.104
Result      : Success
```

32. PFR update

32.1. Update command

Input:

gbtipmitool PFR update <type> <file>

gbtipmitool PFR update ACTIVE_BMC <image.bin>

gbtipmitool PFR update RECOVERY_BMC <image.bin>

gbtipmitool PFR update ACTIVE_BIOS <image.bin>

gbtipmitool PFR update RECOVERY_BIOS <image.bin>

gbtipmitool PFR update ACTIVE_1060 <image.bin>

gbtipmitool PFR update RECOVERY_1060 <image.bin>

Type:

ACTIVE_BMC

RECOVERY_BMC

ACTIVE_BIOS

RECOVERY_BIOS

ACTIVE_1060

RECOVERY_1060

Output:

[BMC IP] | [Update Status]: [0~100%]

Example:

ACTIVE_BMC / RECOVERY_BMC:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password PFR update ACTIVE_BMC BMC_130615_cap.bin

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password PFR update BACKUP_BMC BMC_130615_cap.bin

ACTIVE_BIOS / RECOVERY_BIOS:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password PFR update MAIN_BIOS BIOS_PFRcap_2_17.bin

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password PFR update BACKUP_BIOS BIOS_PFRcap_2_17.bin

ACTIVE_1060 / RECOVERY_1060:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password PFR update MB_CPLD ast1060_v22_cap.bin

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password PFR update BPB_CPLD ast1060_v22_cap.bin

33. NVGB update

33.1. Update FW package

Input:

gbtipmitool NVGB update <image.fwpkg>

Output:

[BMC IP] | [Update Status]: [0~100%]

Example:

\$ gbtipmitool-win.exe -H 10.1.116.68 -U admin -P password NVGB update test_update_file.fwpkg

34. SKU

Send a serial commands for update SKU.

34.1. Update SKU

Input:

```
gbtipmitool sku update <sku.zi_> <parameter>
```

Supported parameter:

--preserve: The index 0 of FRU will be preserved during updates.

--force : Force update SKU without checking product name.

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password sku update R263-S33-AAF1-000.zi_  
10.1.116.104  
Result      : OK
```

34.2. Get SKU version

Input:

```
gbtipmitool sku version
```

Output:

```
[BMC IP] | [Result]: [OK/FAILED]
```

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password sku version  
10.1.116.104  
Version     : 1695288974
```

35. Redfish

Direct connect to redfish API.

35.1. GET URI

Input:

gbtipmitool redfish GET <Redfish URI>

Output:

[BMC IP] | [Result]: [SUCCESS/FAILED]
[Response status]: [Number]
[Response body] : [JSON format content]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password redfish get /redfish/v1
10.1.116.104
Result      : SUCCESS
Response status : 200
Response body : {
"@odata.context": "/redfish/v1/$metadata#ServiceRoot.ServiceRoot",
....}
```

35.2. POST URI

Input:

gbtipmitool redfish POST <Redfish URI> <request body>

Output:

[BMC IP] | [Result]: [SUCCESS/FAILED]
[Response status]: [Number]
[Response body] : [JSON format content]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password redfish POST /redfish/v1/AccountService/Accounts
{"UserName":"test","Password":"1qaz@WSX","RoleId":"Administrator","Enabled":true}
10.1.116.104
Result      : SUCCESS
Response status : 201
Response body : {
"@odata.context": "/redfish/v1/$metadata#ManagerAccount.ManagerAccount",
... }
```

35.3. PATCH URI

Input:

gbtipmitool redfish PATCH <Redfish URI> <request body>

Output:

[BMC IP] | [Result]: [SUCCESS/FAILED]
[Response status]: [Number]
[Response body] : [JSON format content]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password redfish PATCH
/redfish/v1/AccountService/Accounts/4 '{"RoleId":"Operator"}'
10.1.116.104
Result      : SUCCESS
Response status : 204
```

Response body : null

35.4. DELETE URI

Input:

gbtipmitool redfish DELETE <Redfish URI>

Output:

[BMC IP] | [Result]: [SUCCESS/FAILED]

[Response status]: [Number]

[Response body] : [JSON format content]

Example:

```
$ gbtipmitool-win.exe -H 10.1.116.104 -U admin -P password redfish DELETE redfish/v1/AccountService/Accounts/4  
10.1.116.104
```

Result : SUCCESS

Response status : 204

Response body : null

LOCAL

Send commands without IP for the local server.

*Notice 1: gbtipmitool cannot connect to corresponding BMC from same host OS, so you have to use the local command instead.

*Notice 2: You have to close the iKVM UI before executing local command.

Input:

gbtipmitool {-U admin password(option)} {-D}(option) {-c}(option) -T local <Main Service> <SubFunction>
<SubFunctionBody>

Note:

-D: Controls whether logs are saved. By default, logs are not saved.

-c : When using the local command, you will establish a host interface to connect to the BMC. Use this parameter to close the interface at the end of program.

Output:

[169.254.0.17]

Main Service Result

Example:

```
$ ./gbtipmitool-linux -T local sel list
```

169.254.0.17

- 1 : Mon May 08 2023 09:43:25 GMT+0000 (Coordinated Universal Time) | 0xe2 | CPU0_Status | BMC
Event : Processor Presence detected was asserted
- 2 : Mon May 08 2023 09:44:33 GMT+0000 (Coordinated Universal Time) | 0x0 | SYSTEM Event | bios :
OEM System Boot Event was asserted

```
$ ./gbtipmitool-linux -T local -U admin2 password2 sel list
```

169.254.0.17

- 1 : Mon May 08 2023 09:43:25 GMT+0000 (Coordinated Universal Time) | 0xe2 | CPU0_Status | BMC
Event : Processor Presence detected was asserted
- 2 : Mon May 08 2023 09:44:33 GMT+0000 (Coordinated Universal Time) | 0x0 | SYSTEM Event | bios :
OEM System Boot Event was asserted