**GbtUtility command line SOP v0.14**

**Revision history**

|  |  |  |  |
| --- | --- | --- | --- |
| Revision | Date | Modifications | Editor |
| 0.01 | 2014/10/17 | GbtUtility command line SOP |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 0.02 | 2014/11/28 | Add load default sop, fixed update rmc firmware sop. |  |
| 0.03 | 2014/12/01 | Add more information to load default sop. |  |
| 0.04 | 2014/12/11 | Add information of ipmitool installation |  |
| 0.05 | 2015/04/07 | Modify for GbtUtility v014 |  |
| 0.06 | 2015/11/27 | Add information of update rack-st |  |
| 0.07 | 2015/12/30 | Add information of manage rack-st |  |
| 0.09 | 2016/07/20 | Add new vmcli command usage |  |
| 0.10 | 2016/08/04 | Add bmcutil command usage |  |
| 0.11 | 2017/11/20 | Add usage of rest AD, LDAP,DNS, SMTP |  |
| 0.12 | 2020/06/08 | Add the step of run rest fan profile. |  |
| 0.13 | 2020/06/12 | Add rest command usage |  |
| 0.14 | 2021/07/28 | Integrate SOP and reform the format |  |

1. Introduction

GbtUtility is a Java command line utility for communicating with server node BMC. It supports a lot of commands which are often use, including getting BMC information, SEL, updating firmware…etc. You can use it to communicate with single BMC or multiple BMC at one time.

1. Prepare
   1. Running Environment

[Linux]

Ubuntu 14.04, CentOS 7

System required: Oracle Java 7/OpenJDK 1.8.0\_222 above, javaws, freeipmi, ipmitool

root authority is necessary

[Windows]

Windows 2012 R2, Windows 10

System required: Oracle Java 7 above, javaws, ipmitool

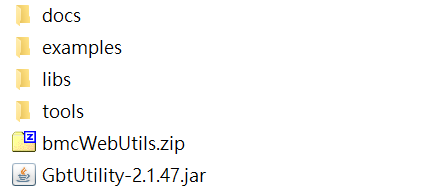
Administrator authority is necessary

[Mac OS]

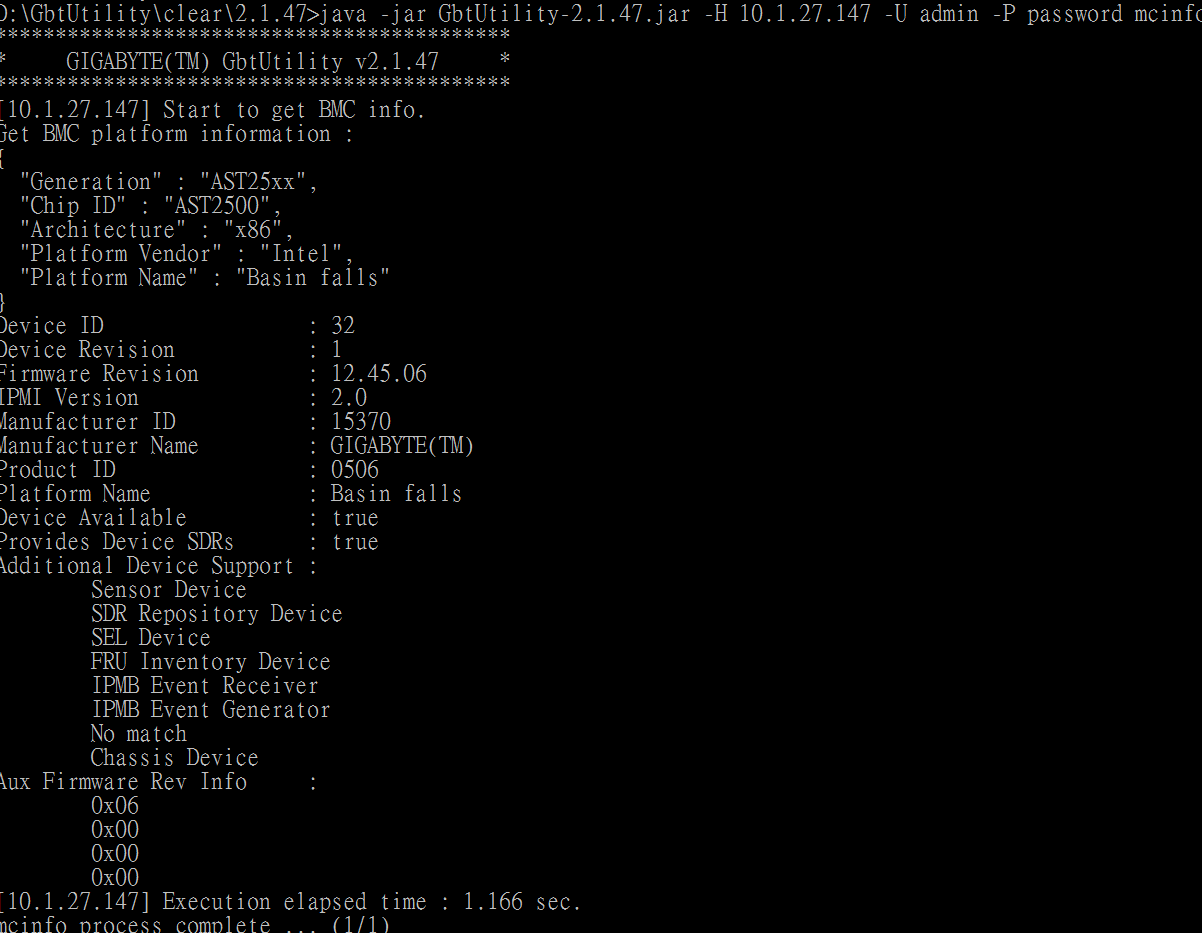
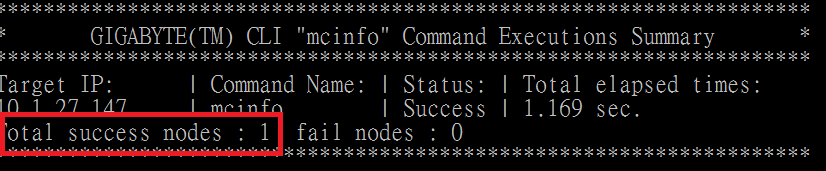
System required: java 7 above, javaws, ipmitool

* 1. Utility folder

Please download utility folder and check you have the following items:



* 1. Test Running

Open terminal and enter utility folder, typing like “java -jar GbtUtility-${project.version}.jar -H <BMC IP> -U <BMC Username> -P <BMC Password> mcinfo”, If the terminal shows “Total success nodes : 1”, it represents the result is OK.  

* 1. Utility Options

Utility basic command construct:

java -jar GbtUtility-${project.version}.jar [options] <command> [parameters]

Commpn Options:

-H, --hostname <arg> execute command via this hostname

-U, --username <arg> BMC username

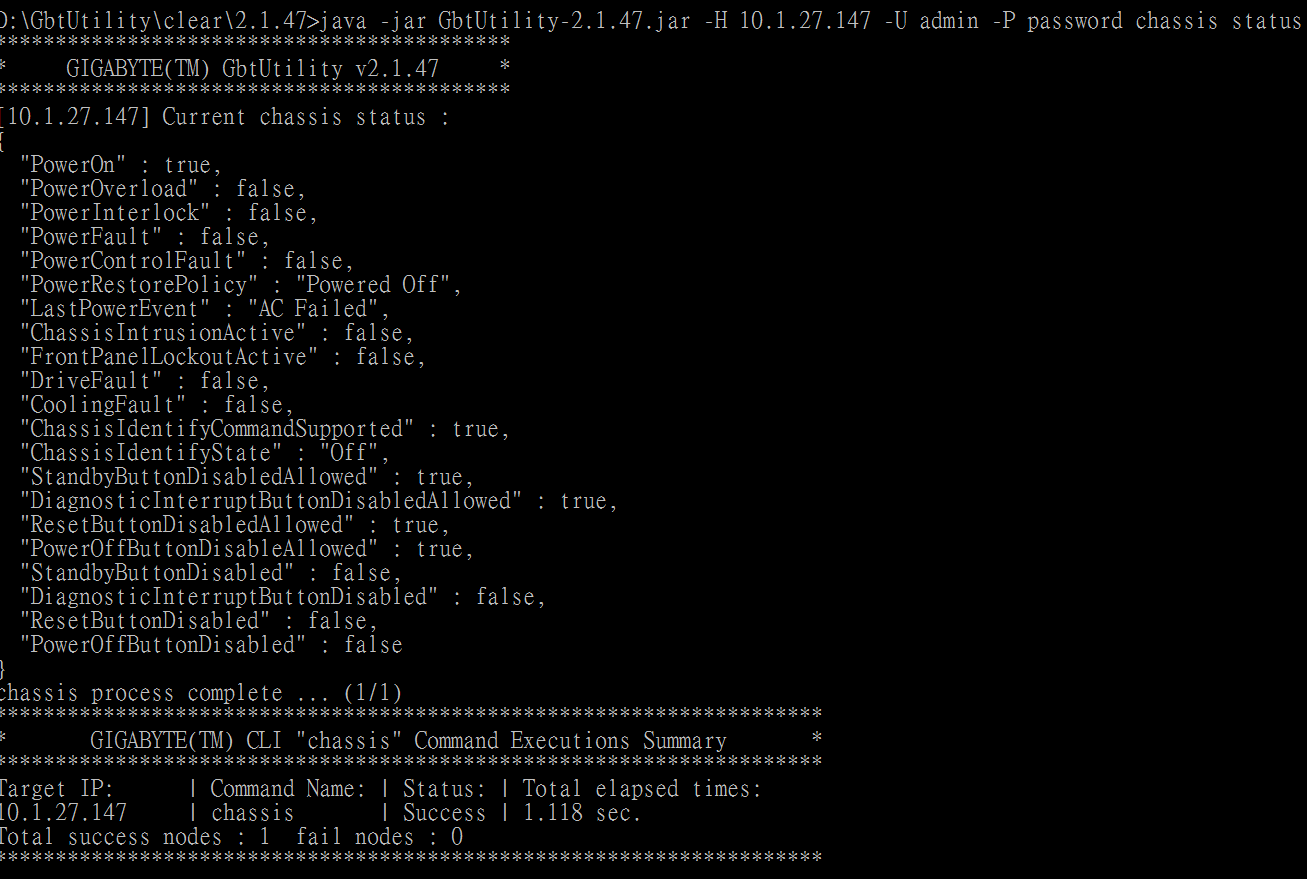
-P, --password <arg> BMC password

-RU,--redfishusername <arg> BMC redfish username (only redfish related command will need)

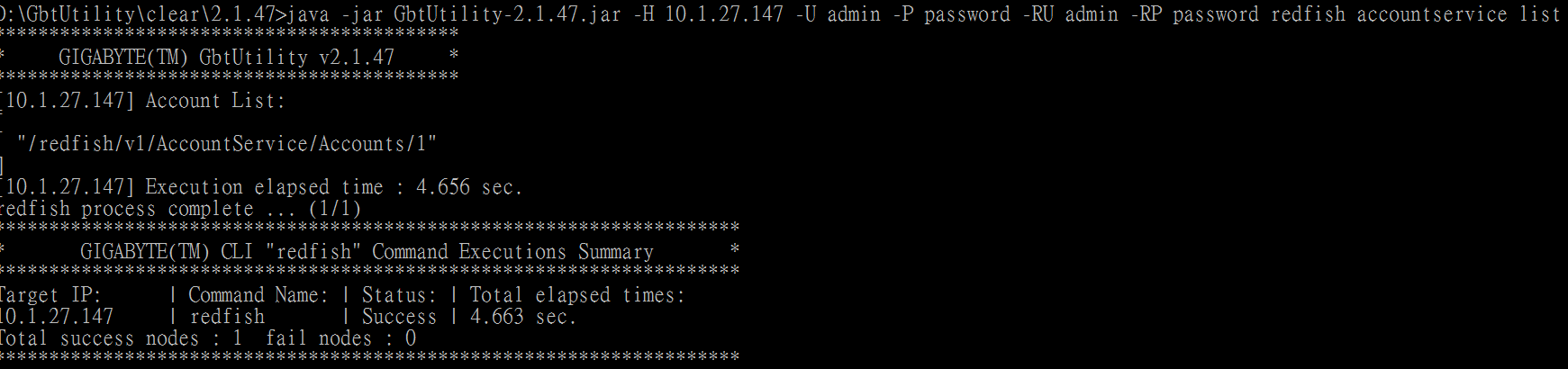
-RP,--redfishpassword <arg> BMCredfish password (only redfish related command will need)

-h, --help print help message

Example 1: Get node chassis status from single BMC



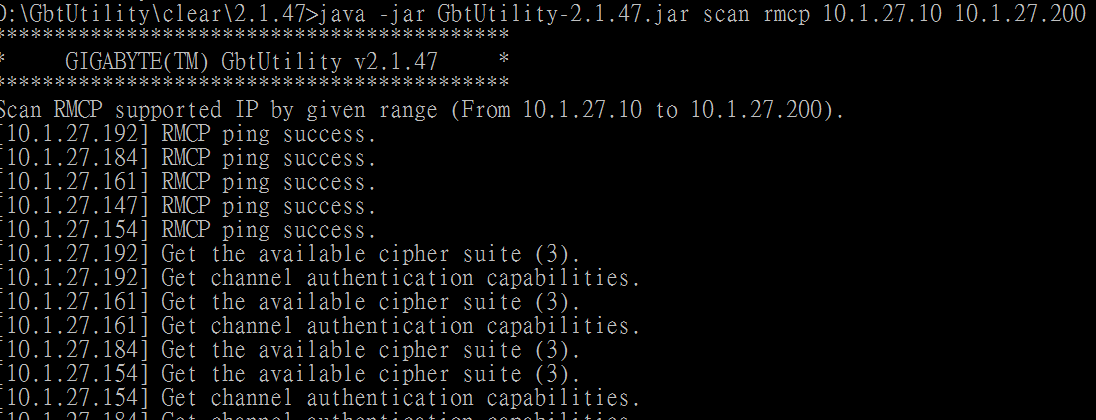
Example 2: Get account list from single BMC via Redfish

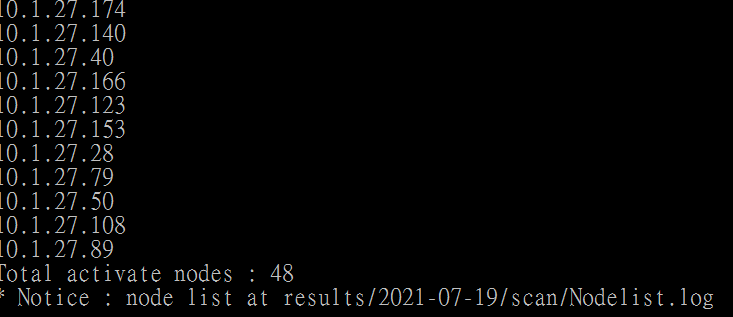


1. Usual Commands
   1. Scan

Before you want to send command to multiple nodes at one time, you can use “scan” command to ensure the range of IP address.

For example, if your node IP addresses are between 10.1.27.10~10.1.27.200:

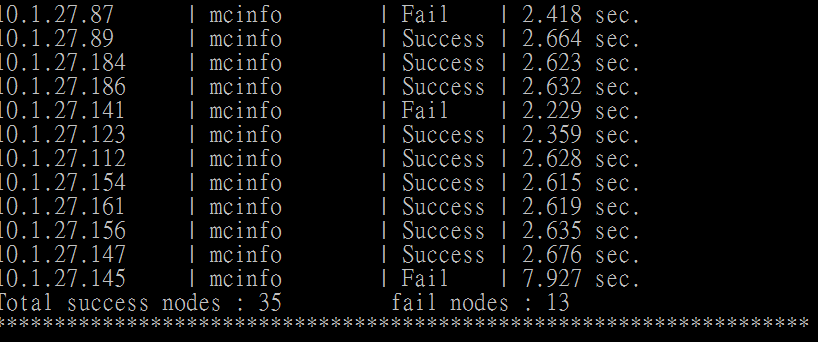




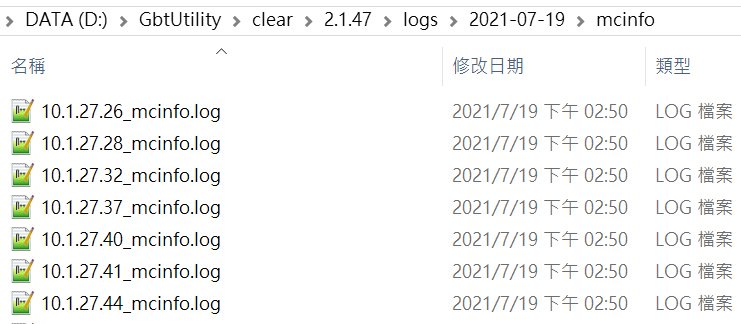
After that, you can send command like the following picture:



Utility will show the total status at the end.



You can also check every node’s log at <Utility Path>/logs/<Date>/<Command Name>



* 1. Chassis

Set node chassis power state.

Usage : java -jar GbtUtility-${project.version}.jar [options] chassis <on|off|cycle|reset>

<on> : power up target node.

<off> : power down target node.

<cycle> : provides a power off interval of at least 1 second.

<reset> : hard reset target node.

Example: Send chassis reset to single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password chassis reset

* 1. Limit

Send power limit management command.

Usage : java -jar GbtUtility-${project.version}.jar [options] limit <get | activate | deactivate>

<get> : Get target node power limit configurations. (no rest args)

<activate> : Activate target node power limit. (no rest args)

<deactivate> : Deactivate target node power limit. (no rest args)

Example: Get power limit from single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password limit get

Usage : java -jar GbtUtility-${project.version}.jar [options] limit <set> <walts> [action] <correction> <sample>

<set> : Set target node power limit configurations.

<walts> : The maximum limitations of power (Unit: Walts)

[action] : Execute the exception action when power range out of limitation.

The default is set to "No actions".

<no> : No actions

<off> : Hard Power Off system & log event to SEL

<log> : Log event to SEL

<correction> : Correction time (milliseconds)

<sample> : Sampling period (seconds)

Example: Set power limit 220 walts to single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password limit set 220

Example: Activate power limit policy to single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password limit activate

* 1. Boot

Send command for setting the boot option.

Usage : java -jar GbtUtility-${project.version}.jar [options] boot <boot device> <mode>

<boot device> Boot devices name.

pxe : Set force pxe boot

disk : Set force boot from BIOS default boot device.

safe : Set force boot from BIOS default boot device, request safe mode.

diag : Set force boot from diagnostic partition.

cdrom : Set force boot from CD/ROM.

bios : Set force boot into BIOS setup.

floppy : Set force boot from Floppy/primary removable media.

vmcdrom : Set force boot from remote CD/ROM media.

vmfloppy : Set force boot from remote Floppy/primary removable media.

<mode> : BIOS boot mode.

uefi : Set force boot as UEFI mode.

legacy : Set force boot as Legacy mode.

Example: Set PXE boot option of UEFI mode to single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password boot pxe uefi

* 1. Trap (deprecated)
  2. Pef(deprecated)
  3. Ipv6(deprecated)
  4. Power

Get node power reading

Usage : java -jar GbtUtility-${project.version}.jar [options] power

Example: Get power reading of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password power

* 1. SEL

Send SEL related command

Usage: java -jar GbtUtility-${project.version}.jar [options] sel <actions> [args...]

<actions> : SEL command actions.

info Get SEL repository info.

get List all sensors event logs.

clear Clear all SEL logs.

time SEL time command.

<args>

get Get the current SEL time.

set Set the SEL current time by given "T" argument.

<T> The time you want to set. Notice the valid time string format pattern as follows:

1. "yyyy.MM.dd G 'at' HH:mm:ss z"

2. "yyyy-MM-dd HH:mm:ss"

3. "yyyy-MM-dd"

4. "yyyy/MM/dd"

5. "yyyy-MM-dd'T'HH:mm:ss.SSSZ"

6. "yyyyy.MMMMM.dd GGG hh:mm aaa"

7. "EEE, MMM d, ''yy"

8. "EEE, d MMM yyyy HH:mm:ss Z"

Example: Get SEL list of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password sel list

* 1. Fru

Get FRU data.

Usage : java -jar GbtUtility-${project.version}.jar [options] fru

Example: Get FRU information of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password fru

* 1. Sdr

Get the sensors list and BMC SDR repository information.

Usage : java -jar GbtUtility-${project.version}.jar [options] sdr <list | info>

<list> : List all seneors reading.

<info> : Show BMC SDR repository info.

Example: Get sensor list and reading of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password sdr list

* 1. Msr

Get CPU model specific registers.

Usage : java -jar GbtUtility-${project.version}.jar [options] msr

Output : Show all register status diagnosis, will show error if register byte got error.

"CPU\_X ok" means cpu is noraml, "CPU\_X error" means cpu is abnormal.

Example: Get MSR of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password msr

* 1. Ipsrc

Get or set IP source(DHCP/Static)

Usage : java -jar GbtUtility-${project.version}.jar [options] ipsrc <get|set> <DHCP|Static>(set only)

Example1: Get IP source of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password ipsrc get

Example2: Set IP source to DHCP of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password ipsrc set DHCP

* 1. Hwinfo(deprecated)
  2. Logochange(deprecated)
  3. Smbios

Get smbios information.

Usage : java -jar GbtUtility-${project.version}.jar [options] smbios

Example: Get SMBIOS of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password smbios

* 1. Loaddf(deprecated)
  2. Local(deprecated)
  3. Onlineupdate(depreated)
  4. Update

Send a serial commands for update BMC/BIOS/CPLD/PSU firmware.

Usage : java -jar GbtUtility-${project.version}.jar [optoins] update <bmc | bios | cpld | psu> [arguemts...]

<bmc>

Usage : java -jar GbtUtility-${project.version}.jar [options] update bmc [auto] [skip] [preserve] <FW package>

[auto] (optional): Skip to ask your permission before start to execute the main update progress or not.

[skip] (optional): Skip to update the same version BMC firmware with firmware package or not.

[preserve] (optional): Preserve the BMC configurations after FW updated or not.

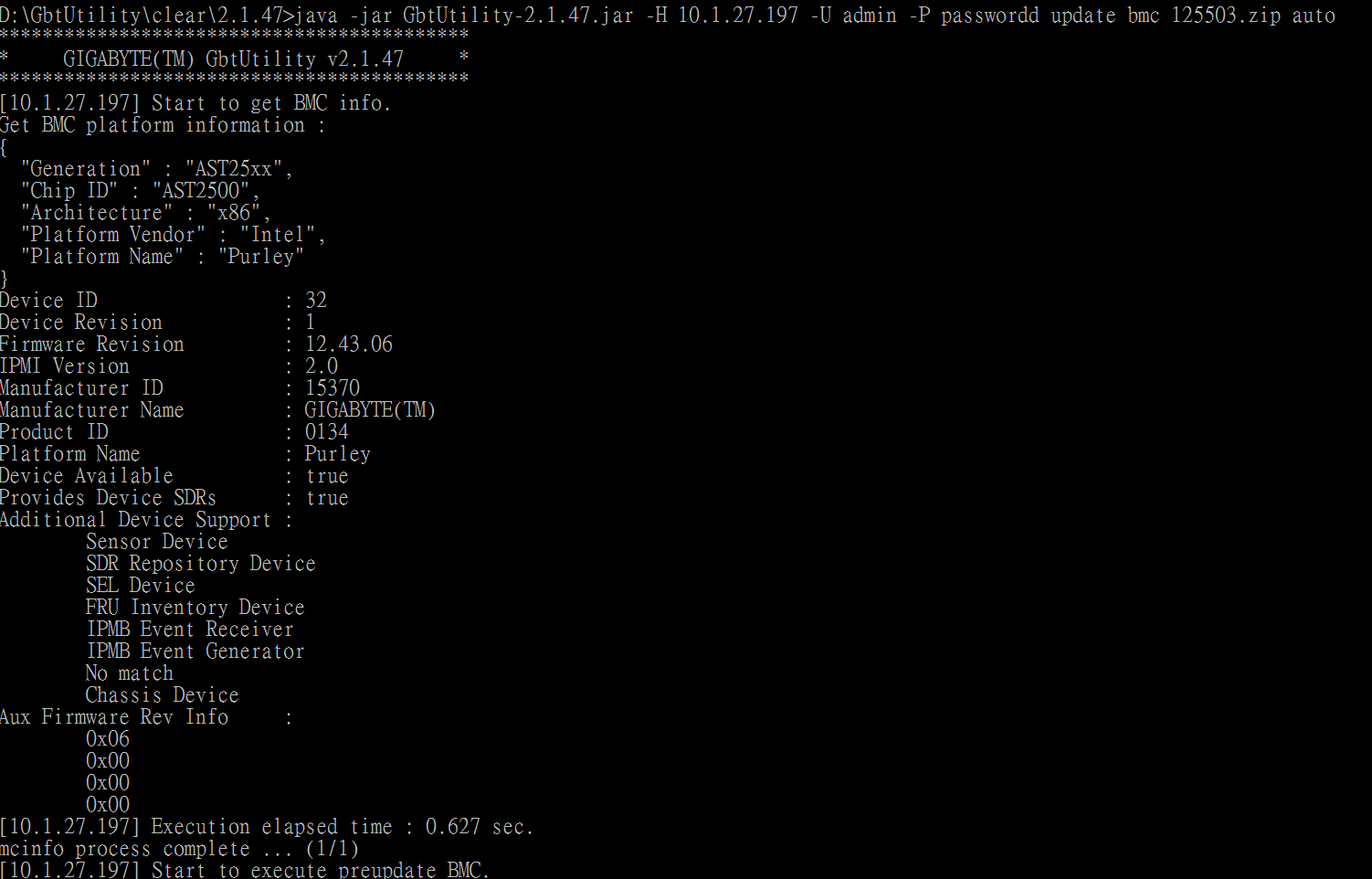
<FW package> : BMC update firmware packages. (only support .zip file)

Example: Update BMC firmware of single node automatically.

Step1: Download BMC firmware package(.zip) and put into GbtUtility directory



Step2: Execute GbtUtility utility with update command



Step3: Wait for update progress success.



<bios>

Usage : java -jar GbtUtility-${project.version}.jar [options] update bios [auto] <FW package>

[auto] (optional): Skip to ask your permission before start to execute the main update progress or not.

<FW package> : BIOS update firmware packages. (only support .zip file)

Example: Update BIOS firmware of single node automatically. (update progress is same with <bmc>)

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password update bios MR91-FS0\_R14.zip auto

<cpld>

Usage : java -jar GbtUtility-${project.version}.jar [options] update cpld <bpb | mb> [auto] <FW package>

[auto] (optional): Skip to ask your permission before start to execute the main update progress or not.

<bpb | mb>: bpb means backplane board CPLD, mb means motherboard CPLD.

<FW package>: CPLD update firmware packages. (only support .zip file)

Example: Update backplane CPLD firmware of single node automatically. (update progress is same with <bmc>)

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password update cpld bpb CBP10A1\_170824\_R0A\_0x1BBD.zip auto

<psu>

Usage : java -jar GbtUtility-${project.version}.jar [options] update psu [auto] <FW package>

[auto] (optional): Skip to ask your permission before start to execute the main update progress or not.

<FW package>: PSU update firmware packages. (only support .hex file)

Example: Update PSU firmware of single node automatically. (update progress is same with <bmc>)

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password update psu 505.hex auto

* 1. Ikvm

Launch KVM function.

Usage : java -jar GbtUtility-${project.version}.jar [options] ikvm

Note: This command will open KVM viewer, please ensure you are running on GUI OS.

Example: Launch KVM of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password ikvm

* 1. Identify

Control node panel identify light.

Usage : java -jar GbtUtility-${project.version}.jar [options] identify <interval>

<interval>

0 Turn off light.

1-255 Turn on light with this interval(Unit: second)

Example: Turn on the light of single node for 10 seconds

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password identify 10

* 1. Mcinfo

Get BMC information, including BMC firmware version, platform name…etc

Usage : java -jar GbtUtility-${project.version}.jar [options] mcinfo

Example: Get BMC information of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password mcinfo

* 1. Meversion

Show BIOS ME version.

Usage : java -jar GbtUtility-${project.version}.jar [options] meversion

Example: Get BIOS ME version of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password meversion

* 1. Userapp

Get BMC user account list or set BMC user account.

Usage : java -jar GbtUtility-${project.version}.jar [options] userapp <set | list | enable | disable> [set args...]

<set> : Set BMC account including username, password and privilege to specify user ID.

Usage : java -jar GbtUtility-${project.version}.jar [options] userapp set <username> <password> <id> <privilege>

<username> : Continuous US a to z string less than 16 chars

<password> : Continuous US a to z string less than 16 chars

<id> : Hexbyte type 0xnn or integer n, start at 0x03(3) and Maximum end at 0x0f(15)

<privilege> : Set user privilege level on LAN and Serial/Modem channel, level number as follow:

callback : level 0x01(1) = Callback

user : level 0x02(2) = User

operator : level 0x03(3) = Operator

admin : level 0x04(4) = Administrator

Example : Set BMC account to “ABC”, password to “password” and privilege to “user” which account ID is 6.

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password userapp set ABC password 6 user

<list> : Get all user account (except password) from all available user IDs

Usage : java -jar GbtUtility-${project.version}.jar [options] userapp list

Example : Get BMC account list.

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password userapp list

<enable> : Enable user and SOL service by given ID.

Usage : java -jar GbtUtility-${project.version}.jar [options] userapp enable <id>

Example : Enable BMC account which ID is 6.

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password userapp enable 6

<disable> : Disable user and SOL service by given ID.

Usage : java -jar GbtUtility-${project.version}.jar [options] userapp disable <id>

Example : Disable BMC account which ID is 6.

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password userapp disable 6

* 1. Smtp(deprecated)
  2. Vmcli(deprecated
  3. Ntp(deprecated)
  4. Bmcutil(deprecated)
  5. Gpufan(deprecated)
  6. Multimode

Send command to CMC and get information of all nodes which managed by CMC (includes "position", "BMC IP", "BMC MAC...etc").

Usage : java -jar GbtUtility-${project.version}.jar multinode

Example : Get node information which controled by specified CMC

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password multinode

* 1. Mac

Get Data LAN MAC list by BMC.

Usage : java -jar GbtUtility-${project.version}.jar [options] mac <group ID | all>

<group ID> : Group ID number (From 0 to 7).

<all> : Set command to retrieve all groups MAC list

Example : Get all data LAN MAC address of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password mac all

* 1. Psuinfo

Get PSU FRU data.

Usage: java -jar GbtUtility-${project.version}.jar [options] psuinfo

Example : Get PSU FRU data of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password psuinfo

* 1. Bpinfo

Get backplane FRU data.

Usage : java -jar GbtUtility-${project.version}.jar [options] bpinfo

Example : Get backplane FRU data of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password bpinfo

* 1. Postcode

Get BIOS post code.

Usage : java -jar GbtUtility-${project.version}.jar [options] postcode <current|previous>

<current>: BIOS current post code data

<previous>: BIOS previous post code data

Example : Get BIOS current post code data of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password postcode current

* 1. Raw

Send IPMI raw command.

Usage : java -jar GbtUtility-${project.version}.jar [options] raw <netFn> <cmd> [request data...]

<netFn> : IPMI raw command network function.

<cmd> : IPMI raw command code.

[request data...] : IPMI raw request data.

Example: Send IPMI raw command 0x06 0x01 to single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password raw 0x06 0x01

* 1. Lanprint

Get BMC LAN configurations.

Usage : java -jar GbtUtility-${project.version}.jar [options] lanprint

Example: Get BMC LAN configuration of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password lanprint

* 1. Netconfig(deprecated)
  2. Mcreset

Reset BMC command.

Usage : java -jar GbtUtility-${project.version}.jar [options] mcreset <cold | warm>

<cold>: Cold reset BMC.

<warm>: Warm reset BMC.

Example: Send cold reset BMC command to single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password mcreset cold

* 1. Solconfig

Set or get BMC SOL configurations by IPMI protocol.

Usage : java -jar GbtUtility-${project.version}.jar [options] solconfig <get | set> [args...]

<get> : Get BMC SOL configurations.

<set> : Set BMC SOL configurations.

[enabled=<true | false>] : Enable or disable sol.

[rate="numbers"] : Volatile and non-volatile bit rate

[priv="byte"] : Privilege Level.

0x02 : User

0x03 : Operator

0x04 : Administrator

Example1: Get BMC SOL configuration of single node

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password solconfig get

Example2: Set BMC SOL configuration which bit rate equal to 115200 and privilege level to administrator.

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password solconfig set enabled=true rate=115200 priv=0x03

* 1. Fwlist

Get firmware version list, include BMC, BIOS and CPLD version.

Usage : java -jar GbtUtility-${project.version}.jar [options] fwlist

Example: Get firmware version list of single node.

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password fwlist

* 1. Imageactivestatus

Get dual image active status.

Usage : java -jar GbtUtility-${project.version}.jar [options] imageactivestatus

Example: Get dual image active status of single node.

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password imageactivestatus

* 1. Hpmupdate

Send a serial commands for update BMC/BIOS by HPM firmware.

Usage : java -jar GbtUtility-${project.version}.jar [optoins] hpmupdate <bmc | bios> [arguemts...]

<bmc>

Usage : java -jar GbtUtility-${project.version}.jar [options] hpmupdate bmc [auto] [skip] [preserve] <FW package>

[auto] (optional): Skip to ask your permission before start to execute the main update progress or not.

[skip] (optional): Skip to update the same version BMC firmware with firmware package or not.

[preserve] (optional): Preserve the BMC configurations after FW updated or not.

<FW package> : BMC update firmware packages. (only support .zip file)

Example: Update BMC firmware of single node automatically.

Step1: Download BMC firmware package (.zip) and put into GbtUtility directory



Step2: Execute GbtUtility utility with hpmupdate command

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.197 -U admin -P password hpmupdate bmc 125503.zip auto

Step3: Wait for update progress success.



<bios>

Usage : java -jar GbtUtility-${project.version}.jar [options] hpmupdate bios [auto] <FW package>

[auto] (optional): Skip to ask your permission before start to execute the main update progress or not.

<FW package> : BIOS update firmware packages. (only support .zip file)

Example: Update BIOS firmware of single node automatically. (update progress is same with <bmc>)

# java -jar GbtUtility-${project.version}.jar -H 10.1.27.147 -U admin -P password hpmupdate bios MR91-FS0\_R14.zip auto

1. REST Commands
   1. Abstract

BMC RESTful service API

* 1. Common usage:

java -jar GbtUtility-${project.version}.jar [options] rest <service> <restopt> [args...]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameters | Description | | | |
| [options] | GbtUtility command common options. | | | |
| Option: | | Option description: | |
| -H | | Single host of BMC IP address. | |
| -S | | Scan the BMC IP addressses by RMCP or SSDP protocol. | |
| -U | | Set BMC IPMI username. (use default value when user doesn't provide) | |
| -P | | Set BMC IPMI password. (use default value when user doesn't provide) | |
| -RU | | Set BMC Redfish username. (use default value when user doesn't provide) | |
| -RP | | Set BMC Redfish password. (use default value when user doesn't provide) | |
| -h | | Print help messages of GbtUtility command usage. | |
| <service> | REST service names in GbtUtility. The menu of API names as follows. The details of all API names will start at 4-3. And the gray area of options table shown the simple usage examples. | | | |
| No: | Name: | | API name description: |
|  | audit | | Get BMC audit information. |
|  | smtp | | Get or set smtp configurations. |
|  | ldapgeneral | | Get or set general LDAP configurations. |
|  | ldapgroup | | Get or set group LDAP configurations. |
|  | ipv6 | | Get or set ipv6 configurations. |
|  | vmcli | | Virtual media redirection configurations service. |
|  | loaddefault | | Load BMC default configurations. |
|  | pef | | Set server platform event filter. |
|  | trap | | Set server trap IP addresses. |
|  | dns | | DNS configurations service. |
|  | backup | | Retrieve information about the configuration and download as backup file. |
|  | preserve | | Preserve configurations of BMC configurations after update firmware. |
|  | ntp | | NTP configuration service. |
|  | aduser | | Get or set active directory configurations. |
|  | adgroup | | Get or set active directory role group configurations. |
|  | smbios | | Get SMBIOS information. |
|  | biosmenu | | Download or upload BIOS setup menu. |
|  | raid | | Get the raid configurations. |
|  | ca | | Upload CA file and update. |
|  | fanprofile | | Get,upload and execute fan profile. |
|  | pamorder | | Set or get PAM configurations of BMC. |
|  | vmedia | | Mount ISO image to remote BMC as virtual media. |
|  | nodeinfo | | Get BMC node information. (only for CMC) |
|  | gpuinfo | | Get GPU information. |
|  | fpgainfo | | Get FPGA information. |
|  | nvswitchinfo | | Get NVSwitch information. |
| <restopt> | RESTful API options of given "<service>". | | | |
| [args...] | The rest arguments of given "< service >" in each Redfish API. (If needed) | | | |

* 1. audit

Get audit information.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest audit <get> |
| API options | | Description of API options and other arguments. |
|  | get | Get audit information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest audit get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest audit get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest audit get |

* 1. smtp

SMTP settings information

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest smtp <get|set> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get smtp information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest smtp get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest smtp get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest smtp get |
|  | set | Set smtp information. |
| <jsonfile> | The smtp information data.  [  {  "id" : 1,  "channel\_interface" : "bond0",  "email\_id" : "",  "primary\_smtp\_enable" : 1,  "primary\_server\_name" : "",  "primary\_smtp\_port" : 25,  "primary\_smtp\_secure\_port" : 465,  "primary\_smtp\_authentication" : 0,  "primary\_server\_ip" : "127.0.0.1",  "primary\_username" : "",  "primary\_password" : "",  "secondary\_smtp\_enable" : 0,  "secondary\_server\_name" : "",  "secondary\_smtp\_port" : 25,  "secondary\_smtp\_secure\_port" : 465,  "secondary\_smtp\_authentication" : 0,  "secondary\_server\_ip" : "",  "secondary\_username" : "",  "secondary\_password" : ""  }  ] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest smtp set smtpInfo.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest smtp set smtpInfo.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest smtp set smtpInfo.json |

* 1. ldapgeneral

LDAP general settings information

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest ldapgeneral <get|put> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get LDAP general settings information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ldapgeneral get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ldapgeneral get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest ldapgeneral get |
|  | put | Set LDAP general settings information.  ps. Before put ldapgeneral, Please check your ldapgroup setting |
| <jsonfile> | The LDAP general data.  {  "id":1,  "enable":1,  "encryption\_type":"1",  "port":"389",  "server\_address":"10.1.7.47",  "bind\_dn":"cn=AdminCarol,dc=whck,dc=com",  "search\_base":"ou=login,dc=whck,dc=com",  "user\_login\_attribute":"cn",  "common\_name\_type":"ip",  "password":"123"  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ldapgroup put ldapgroup.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ldapgroup put ldapgroup.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest ldapgroup put ldapgroup.json |

* 1. ldapgroup

LDAP group settings information

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest ldapgroup <get|put> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get ldap Role Group information |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ldapgroup get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ldapgroup get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest ldapgroup get |
|  | put | Set ldap Role Group information |
| <jsonfile> | The json file path of ldap Role Group information.  {  "id":1,  "role\_group\_name":"test123",  "role\_group\_domain":"dc=domain",  "role\_group\_privilege":"none",  "role\_group\_withoem\_privilege":"administrator",  "role\_group\_kvm\_privilege":1,  "role\_group\_vmedia\_privilege":1  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ldapgroup put ldapgroup.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ldapgroup put ldapgroup.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest ldapgroup put ldapgroup.json |

**LDAP set role group steps:**

1. Set ldap setting to json file. For example:

{

"enable":1,

"id":1,

"encryption\_type":"1",

"port":"389",

"server\_address":"10.1.7.47",

"bind\_dn":"cn=admin",

"search\_base":"ou=login",

"user\_login\_attribute":"uid",

"common\_name\_type":"ip",

"password":"123"

}

$ java -jar GbtUtility-${project.version}.jar rest ldapgeneral put ldapsetting.json

2. Set Role Group information to json file. For example:

{

"id":1,

"role\_group\_name":"test123",

"role\_group\_domain":"dc=domain",

"role\_group\_privilege":"none",

"role\_group\_withoem\_privilege":"administrator",

"role\_group\_kvm\_privilege":1,

"role\_group\_vmedia\_privilege":1

}

$ java -jar GbtUtility-${project.version}.jar rest ldapgroup put ldapgroup.json

* 1. ipv6

Set enable/disable node ipv6, Get node ipv6 information.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest ipv6 <get|put> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get node ipv6 information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ipv6 get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ipv6 get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest ipv6 get |
|  | put | Set enable/disable node ipv6. |
| <jsonfile> | IPv6 JSON configurations.  {  "id":1,  "interface\_name":"bond0",  "channel\_number":1,  "lan\_enable":1,  "mac\_address":"",  "ipv4\_enable":1,  "ipv4\_dhcp\_enable":1,  "ipv4\_address":"10.1.7.138",  "ipv4\_subnet":"255.255.255.0",  "ipv4\_gateway":"10.1.7.253",  "ipv6\_enable":1,  "ipv6\_dhcp\_enable":1,  "ipv6\_address":"",  "ipv6\_index":0,  "ipv6\_prefix":"64",  "ipv6\_gateway":"::",  "vlan\_enable":0,  "vlan\_id":"0",  "vlan\_priority":"0"  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ipv6 put ipv6.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ipv6 put ipv6.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest ipv6 put ipv6.json |

* 1. vmcli

Get/set general media redirection options. And set virtual media mount and unmount. Support CD/ROM, floppy, removable images or devices as virtual media to remote node server of given BMC IPs. Get virtual information.

|  |  |  |
| --- | --- | --- |
| Usage: | |  |
| API options | | Description of API options and other arguments. |
|  | get | Get vmcli configuration. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest vmcli get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest vmcli get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest vmcli get |
|  | set | Set vmcli configuration by given json file. |
| <jsonfile> | The vmcli settings json data:  {  "id":1,  "local\_media\_support":0,  "remote\_media\_support":1,  "mount\_cd":1,  "mount\_hd":0,  "same\_settings":1,  "cd\_remote\_server\_address":"10.1.7.47",  "cd\_remote\_source\_path":"/public",  "cd\_remote\_share\_type":"cifs",  "cd\_remote\_domain\_name":"gigabyte.intra",  "cd\_remote\_user\_name":"smbuser",  "hd\_remote\_server\_address":"",  "hd\_remote\_source\_path":"",  "hd\_remote\_share\_type":"",  "hd\_remote\_domain\_name":"",  "hd\_remote\_user\_name":"",  "cd\_remote\_password":"1qaz%TGB",  "hd\_remote\_password":""  }   1. id: ID 2. ocal\_media\_support: Enable local media support. (Disable:0, Enable:1.) 3. remote\_media\_support: Enable remote media support. (Disable:0, Enable:1.) 4. mount\_cd: mount cd (not select:0, select:1) 5. mount\_hd: mount hd (not select:0, select:1) 6. same\_settings: Same settings (enabled:1, disabled:0) 7. cd\_remote\_server\_address: Address of remote server (It must Fill data if mount\_cd is select) 8. cd\_remote\_source\_path: Path on remote server (It must Fill data if mount\_cd is select) 9. cd\_remote\_share\_type: CD remote share type (It must Fill data if mount\_cd is select, and it must be “cifs” when you use samba) 10. cd\_remote\_domain\_name : CD remote domain name (It must Fill data if mount\_cd is select) 11. cd\_remote\_user\_name: CD remote user name (It must Fill data if mount\_cd is select) 12. cd\_remote\_password: CD remote Password (It must Fill data if mount\_cd is select) 13. hd\_remote\_server\_address: Address of remote server(It must Fill data if mount\_hd is select) 14. hd\_remote\_source\_path: Path on remote server (It must Fill data if mount\_hd is select) 15. hd\_remote\_share\_type: HDD remote share type (It must Fill data if mount\_hd is select, and it must be “cifs” when you use samba) 16. hd\_remote\_domain\_name : HDD remote domain name (It must Fill data if mount\_hd is select) 17. hd\_remote\_user\_name: HDD remote user name (It must Fill data if mount\_hd is select) 18. hd\_remote\_password: HDD remote Password (It must Fill data if mount\_hd is select) |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest vmcli set vmcli.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest vmcli set vmcli.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest vmcli set vmcli.json |
|  | imagelist | List vmcli image list. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest vmcli imagelist |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest vmcli imagelist |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest vmcli imagelist |
|  | medialist | List vmcli media list. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest vmcli medialist |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest vmcli medialist |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest vmcli medialist |
|  | mount | Mount image to remote BMC by given config json file of image. |
| <jsonfile> | The image json data. You can get list of this data. By “imagelist” option.  {  "image\_index":0,  "image\_name": "ubuntu-14.04.5-server-amd64.iso",  "image\_type":1  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest vmcli mount vmclimount.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest vmcli mount vmclimount.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest vmcli mount vmclimount.json |
|  | unmount | Unmount image to remote BMC by given config json file of image. |
| <jsonfile> | The image json data. You can get list of this data. By “imagelist” option.  {  "image\_index":0,  "image\_name": "ubuntu-14.04.5-server-amd64.iso",  "image\_type":1  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest vmcli unmount vmclimount.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest vmcli unmount vmclimount.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest vmcli unmount vmclimount.json |

**Preparation mount virtual media:**

**A. Installing and configuring the samba server on Linux**

1- Install samba server

$ sudo apt-get install samba

2- Add user smbuser

$ sudo adduser smbuser --shell /bin/false

3- Set smbuser password

$ sudo smbpasswd -a smbuser

4- After set the same config of Samba Server and user then make some adjustment

to config of Samba server.

$ gedit /etc/samba/smb.conf

# Add the setting of following to /etc/samba/smb.conf

[public] # The name of public can be switch

path = /home/smbuser # This is the folder path to share

available = yes

valid users = smbuser # This is the user that can use this share folder

read only = no

browseable = yes

public = yes

writable = yes

5- After setting, please restart Samba Server by execute the command as follows:

$ sudo service smbd restart

**B. Send samba server to node by using GbtUtility**

Hint: The Path of JSON file must be the same with GbtUtility-${project.version}.jar, or give the absolute path of json file.

1- Fill inforamtion of samba server to JSON file.

For example: vmcli.json

{

"id":1,

"local\_media\_support":0,

"remote\_media\_support":1,

"mount\_cd":1,

"mount\_hd":0,

"same\_settings":1,

"cd\_remote\_server\_address":"10.1.7.47",

"cd\_remote\_source\_path":"/public",

"cd\_remote\_share\_type":"cifs",

"cd\_remote\_domain\_name":"gigabyte.intra",

"cd\_remote\_user\_name":"smbuser",

"hd\_remote\_server\_address":"",

"hd\_remote\_source\_path":"",

"hd\_remote\_share\_type":"",

"hd\_remote\_domain\_name":"",

"hd\_remote\_user\_name":"",

"cd\_remote\_password":"1qaz%TGB",

"hd\_remote\_password":""

}

You can use the command to get above info by GbtUtility:

$ java -jar GbtUtility-${project.version}.jar -H <node IP> rest vmcli get

2- Put Setting to node

$ java -jar GbtUtility-${project.version}.jar -H <node IP> rest vmcli set vmcli.json

3- Get image iso file name & index

$ java -jar GbtUtility-${project.version}.jar -H <node IP> rest vmcli imagelist

4- Select the image that you want to monut, fill the image name and image index to JSON file. The image type is 1 (for CD/DVD). For example: vmcliMount.json

{

"image\_index":0,

"image\_name": "ubuntu-14.04.5-server-amd64.iso",

"image\_type":1

}

5- Mount

$ java -jar GbtUtility-${project.version}.jar -H <node IP> rest vmcli mount vmcliMount.json

6- Unmount

Like monut, select the image that you want to unmount to fill into json file.

$ java -jar GbtUtility-${project.version}.jar -H <node IP> rest vmcli unmount vmclimount.json

* 1. loaddefault

Load default to mass nodes (load to BMC).

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest loaddefault |
| API options | | Description of API options and other arguments. |
|  | N/A | No options |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest loaddefault |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest loaddefault |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest loaddefault |

* 1. pef

Node platform event filter settings.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest pef <get|put|delete> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get PEF settings. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest pef get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest pef get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest pef get |
|  | put | Add/modify PEF settings. |
| <jsonfile> | The PEF JSON data.  {  "id": 1,  "enable\_filter": 1,  "trigger\_event\_severity": "critical",  "alert": 1,  "power\_action": "none",  "policy\_group": 1,  "generator\_id\_1": 255,  "generator\_id\_2": 255,  "sensor\_type": 1,  "name": "All Sensors",  "sensor\_num": 1,  "event\_trigger": 1,  "event\_data\_1\_offset\_mask": 516,  "event\_data\_1\_and\_mask": 0,  "event\_data\_1\_compare\_1": 255,  "event\_data\_1\_compare\_2": 0,  "event\_data\_2\_and\_mask": 0,  "event\_data\_2\_compare\_1": 255,  "event\_data\_2\_compare\_2": 0,  "event\_data\_3\_and\_mask": 0,  "event\_data\_3\_compare\_1": 255,  "event\_data\_3\_compare\_2": 0,  "raw\_data": 1,  "generator\_type": "",  "event\_options": "all"  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest pef put pefInfo.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest pef put pefInfo.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest pef put pefInfo.json |
|  | delete | Delete PEF settings. |
| <jsonfile> | The PEF JSON data.  {  "id": 1,  "enable\_filter": 1,  "trigger\_event\_severity": "critical",  "alert": 1,  "power\_action": "none",  "policy\_group": 1,  "generator\_id\_1": 255,  "generator\_id\_2": 255,  "sensor\_type": 1,  "name": "All Sensors",  "sensor\_num": 1,  "event\_trigger": 1,  "event\_data\_1\_offset\_mask": 516,  "event\_data\_1\_and\_mask": 0,  "event\_data\_1\_compare\_1": 255,  "event\_data\_1\_compare\_2": 0,  "event\_data\_2\_and\_mask": 0,  "event\_data\_2\_compare\_1": 255,  "event\_data\_2\_compare\_2": 0,  "event\_data\_3\_and\_mask": 0,  "event\_data\_3\_compare\_1": 255,  "event\_data\_3\_compare\_2": 0,  "raw\_data": 1,  "generator\_type": "",  "event\_options": "all"  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest pef delete pefInfo.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest pef delete pefInfo.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest pef delete pefInfo.json |

* 1. trap

Node trap ip.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest pef <get|put|delete> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get node trap IP. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest trap get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest trap get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest trap get |
|  | put | Set node trap IP. |
| <jsonfile> | The node trap IP json data.  {  "channel\_id":1,  "id":1,  "destination\_address":"",  "name":"null",  "lan\_channel":1,  "destination\_type":"email",  "subject":"",  "message":""  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest trap put trapInfo.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest trap put trapInfo.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest trap put trapInfo.json |
|  | delete | Delete node trap IP. |
| <jsonfile> | The node trap IP json data.  {  "channel\_id":1,  "id":1,  "destination\_address":"",  "name":"null",  "lan\_channel":1,  "destination\_type":"email",  "subject":"",  "message":""  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest trap delete trapInfo.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest trap delete trapInfo.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest trap delete trapInfo.json |

* 1. dns

General DNS service configuration.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest dns <enable | disable | status | gethost | getserver | getdomain | info | setdns> [args...] |
| API options | | Description of API options and other arguments. |
|  | enable | Enable DNS service. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest dns enable |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest dns enable |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest dns enable |
|  | disable | Disable DNS service. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest dns disable |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest dns disable |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest dns disable |
|  | status | Get DNS service status. |
|  | by nodelist: | java -jar GbtUtility-${project.version}.jar rest dns status |
|  | by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest dns status |
|  | by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest dns status |
|  | gethost | Get DNS hostname and its configurations. |
|  | by nodelist: | java -jar GbtUtility-${project.version}.jar rest dns gethost |
|  | by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest dns gethost |
|  | by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest dns gethost |
|  | getserver | Retrieve DNS server interface options. |
|  | by nodelist: | java -jar GbtUtility-${project.version}.jar rest dns getserver |
|  | by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest dns getserver |
|  | by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest dns getserver |
|  | getdomain | Retrieve DNS domain interface options. |
|  | by nodelist: | java -jar GbtUtility-${project.version}.jar rest dns getdomain |
|  | by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest dns getdomain |
|  | by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest dns getdomain |
|  | info | Get DNS info. |
|  | by nodelist: | java -jar GbtUtility-${project.version}.jar rest dns info |
|  | by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest dns info |
|  | by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest dns info |
|  | setdns | Set DNS host,server,domain. |
|  | <jsonfile> | The DNS json data.  {  "reg\_id": 2,  "reg\_ifc1": "eth0",  "reg\_enable1": 1,  "reg\_option1": 0,  "reg\_mdns1": 0,  "tsig\_private0": "Not Available",  "tsig\_private": "Not Available",  "tsig\_exists": 0,  "tsig\_both": 0,  "reg\_ifc2": "eth1",  "reg\_enable2": 0,  "reg\_option2": 0,  "reg\_mdns2": 0,  "tsig\_private1": "Not Available",  "dns\_server1": "10.0.0.31",  "dns\_server2": "10.0.0.33",  "dns\_server3": "::",  "id": 1,  "dns\_status": 1,  "reg\_count": 2,  "ip\_count": 3,  "host\_cfg": "1",  "host\_name": "AMI001212121212",  "domain\_manual": "0",  "domain\_iface": "eth0\_v6",  "domain\_name": "in.megatrends.com",  "dns\_manual": "1",  "dns\_iface": null,  "dns\_priority": 0  } |
|  | by nodelist: | java -jar GbtUtility-${project.version}.jar rest dns setdns dns.json |
|  | by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest dns setdns dns.json |
|  | by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest dns setdns dns.json |

* 1. backup

Retrieve information about the configuration backup options and download backup file.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest backup <get | set | dump | fulldump | restore> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get the current settings of download BMC config as backup file on remote BMC. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest backup get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest backup get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest backup get |
|  | set | Set the settings of download BMC config as backup file to remote BMC. |
| <jsonfile> | The backup settings json data. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest backup set backup.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest backup set backup.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest backup set backup.json |
|  | dump | Download the BMC config as backup file from remote BMC with the current settings according to remote BMC.  \* The download BMC config file as \*.bak located at ./results/yyyy-mm-dd/rest/ |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest backup dump |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest backup dump |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest backup dump |
|  | fulldump | Download the full BMC config as backup file from remote BMC.  \* The download BMC config file as \*.bak located at ./results/yyyy-mm-dd/rest/ |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest backup fulldump |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest backup fulldump |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest backup fulldump |
|  | restore | Restore the BMC configurations file to BMC restore the configurations. |
| <bakfile> | The backup (\*.bak) file. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest backup restore /home/bmcConfig.bak |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest backup restore /home/bmcConfig.bak |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest backup restore /home/bmcConfig.bak |

* 1. preserve

Preserve configurations of BMC configurations after update firmware.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest preserve <get | set> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get preserve configurations json data of BMC configurations after update firmware |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest preserve get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest preserve get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest preserve get |
|  | set | Set preserve configurations json data of BMC configurations after update firmware |
| <jsonfile> | The preserve configurations json data for set.  {  "authentication" : 0,  "fru" : 1,  "id" : 1,  "ipmi" : 1,  "kvm" : 1,  "network" : 0,  "ntp" : 0,  "redfish" : 0,  "sdr" : 1,  "sel" : 0,  "snmp" : 1,  "ssh" : 0,  "syslog" : 0,  "web" : 0  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest preserve set examples/rest/preserveCfg.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest preserve set examples/rest/preserveCfg.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest preserve set examples/rest/preserveCfg.json |

* 1. ntp

NTP configuration command.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest ntp <get | set> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get NTP configurations. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ntp get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ntp get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest ntp get |
|  | set | Set NTP configurations. |
| <jsonfile> | The NTP configurations json data for upload.  {  "id": 1,  "primary\_ntp": "tick.stdtime.gov.tw",  "secondary\_ntp": "time.nist.gov",  "ntp\_auto\_date": 1,  "utc\_minutes": 480,  "timezone": "Asia/Taipei"  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ntp set examples/rest/NTP.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ntp set examples/rest/NTP.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest ntp set examples/rest/NTP.json |

* 1. aduser

Active Directory Setting information.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest aduser <get|put> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get Active Directory Setting information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest aduser get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest aduser get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest aduser get |
|  | put | Set Active Directory Setting information. |
| <jsonfile> | The json data of AD settings.  {  "id":1,  "enable":1,  "user\_domain\_name":"gigabyte.intra",  "secret\_username":"allen",  "domain\_controller1":"10.1.7.47",  "domain\_controller2":"",  "domain\_controller3":"",  "secret\_password":"allen.h"  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest aduser put aduser.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest aduser put aduser.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest aduser put aduser.json |

* 1. adgroup

Active Directory Role Group information.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest adgroup <get|put> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get Active Directory Role Group information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest adgroup get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest adgroup get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest adgroup get |
|  | put | Set Active Directory Role Group information. |
| <jsonfile> | The json data of AD role group settings.  {  "id":2,  "role\_group\_name":"test123",  "role\_group\_domain":"test.com",  "role\_group\_privilege":"none",  "role\_group\_withoem\_privilege":"administrator",  "role\_group\_kvm\_privilege":1,  "role\_group\_vmedia\_privilege":1  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest adgroup put adgroup.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest adgroup put adgroup.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest adgroup put adgroup.json |

**AD (Active Directory) set role group steps:**

1. Set ad user setting to json file. For example:

{

"id":1,

"enable":1,

"user\_domain\_name":"gigabyte.intra",

"secret\_username":"allen",

"domain\_controller1":"10.1.7.74",

"domain\_controller2":"",

"domain\_controller3":"",

"secret\_password":"allen.h"

}

$ java -jar GbtUtility-${project.version}.jar rest aduser put aduser.json

2. Set AD Role Group information to json file. For example:

{

"id":2,

"role\_group\_name":"test123",

"role\_group\_domain":"test.com",

"role\_group\_privilege":"none",

"role\_group\_withoem\_privilege":"administrator",

"role\_group\_kvm\_privilege":1,

"role\_group\_vmedia\_privilege":1

}

$ java -jar GbtUtility-${project.version}.jar rest adgroup put adgroup.json

* 1. smbios

Get smbios information data.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest smbios get |
| API options | | Description of API options and other arguments. |
|  | get | Get smbios information data. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest smbios get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest smbios get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest smbios get |

* 1. biosmenu (Deprecated)

Download or upload BIOS setup menu.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest biosmenu <dump | upload> [args...] |
| API options | | Description of API options and other arguments. |
|  | dump | Download the BIOS setup menu as json file.  \* The download BIOS setup menu file as \*.json and located at ./results/yyyy-mm-dd/rest/ |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest biosmenu dump |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest biosmenu dump |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest biosmenu dump |
|  | upload | Download the full BIOS config as backup file from remote BMC. |
| <gzfile> | Upload file of BIOS setup menu, it can be json or gzip format file of BIOS setup menu. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest biosmenu upload  /home/bios/XXXX\_setup.gz |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest biosmenu upload /home/bios/XXXX\_setup.gz |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest biosmenu upload /home/bios/XXXX\_setup.gz |

* 1. raid

Get the raid configurations and build/delete raid.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest raid <getraidinfo | createvirtualdevice | deletevirtualdevice | getstoragesummary | getphysicaldeviceinfo | getlogicaldeviceinfo | getbbuinfo | getlogs | deletelogs> [args...] |
| API options | | Description of API options and other arguments. |
|  | getraidinfo | Get raid card information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid getraidinfo |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid |
|  | createvirtualdevice | Create raid virtual device. |
| <jsonfile> | Raid virtual device json data.  {  "CTRLID":"257",  "VDNAME":"test12",  "StripeSize":9,  "initState":0,  "diskCachePolicy":0,  "VDSize":1163,  "readpolicy":0,  "writepolicy":0,  "accesspolicy":0,  "deviceId":"~(18,0)~(19,0)",  "raid\_level":1,  "iopolicy":0,  "spandepth":1,  "numdrives":2  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid createvirtualdevice examples/rest/raidCreateVirtualDevice.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid createvirtualdevice examples/rest/raidCreateVirtualDevice.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid createvirtualdevice examples/rest/raidCreateVirtualDevice.json |
|  | deletevirtualdevice | Delete raid virtual device. |
| <jsonfile> | Raid virtual device json data.  {  "CTRLID":257,  "DEVICEID":0  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid deletevirtualdevice examples/rest/RaidDeleteVirtualDevice.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid deletevirtualdevice examples/rest/RaidDeleteVirtualDevice.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid deletevirtualdevice examples/rest/RaidDeleteVirtualDevice.json |
|  | getstoragesummary | Get storage summary information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid getstoragesummary |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid getstoragesummary |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid getstoragesummary |
|  | getphysicaldeviceinfo | Get physical device information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid getphysicaldeviceinfo |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid getphysicaldeviceinfo |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid getphysicaldeviceinfo |
|  | getlogicaldeviceinfo | Get logical device information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid getlogicaldeviceinfo |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid getlogicaldeviceinfo |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid getlogicaldeviceinfo |
|  | getbbuinfo | Get BBU information |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid getbbuinfo |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid getbbuinfo |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid getbbuinfo |
|  | getlogs | Get raid log. |
| <jsonfile> | The request payload json data.  {  "evttype":-1,  "ctrlid":257  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid getlogs examples/rest/raidLogs.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid getlogs examples/rest/raidLogs.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid getlogs examples/rest/raidLogs.json |
|  | deletelogs | Delete raid log. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest raid deletelogs |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest raid deletelogs |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest raid deletelogs |

* 1. ca

Upload CA file and update.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest ca <get | post> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get CA information (file name must be ca.pem) |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ca get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ca get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest ca get |
|  | post | upload and update CA file & key file (fileN name must be key.pem) |
| <cafile> | upload CA file. |
| <keyfile> | upload key files. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest ca post ca.pem key.pem |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest ca post ca.pem key.pem |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest ca post ca.pem key.pem |

**About create open SSL for usage:**

1. First install openssl :

$ sudo apt-get install openssl

$ sudo apt-get install libssl-dev

2. Create private key: Execute the command as following:

$ openssl genrsa -out <private key file name> < RSA keylength >

Ex:

$ openssl genrsa -out private.key 2048

3. Create csr file by execute the command as following:

$ openssl req -out < output csr file name> -key <private key file name> -new -sha256

Ex:

$ openssl req -out mycsr.csr -key private.key -new -sha256

PS: The file name of .csr file can be anything you want, input the information of CA, and press "ENTER" in extra items

4. Final, execute the command as following to create .crt file. The parameter of -day is valid days of certificate. In this example is 365 days

$ openssl x509 -req -sha256 -days <Days> -in < csr file name > -signkey <privatekey>

-out <output crt file name>

Ex:

$ openssl x509 -req -sha256 -days 365 -in mycsr.csr -signkey private.key

-out mycert.crt

5. After finish, we will find files

mycert.crt

mycsr.csr

private.key

6. Modified file name:

mycert.crt -> ca.pem

private.key -> key.pem

7. Use Gbtutility to upload ca

$ java -jar GbtUtility.jar –S rmcp 192.168.1.1,192.168.1.100 -U admin -P password

rest ca post ca.pem key.pem

* 1. fanprofile

Get,upload and execute fan profile.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest fanprofile <post | get | run> [args...] |
| API options | | Description of API options and other arguments. |
|  | post | Upload fan profile. |
| <jsonfile> | The fan profile json data.  Please see the json data at: ./examples/rest/fanprofile\_AMI.json |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest fanprofile post fanprofile\_AMI.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest fanprofile post fanprofile\_AMI.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest fanprofile post fanprofile\_AMI.json |
|  | get | Get all fan profile information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest fanprofile get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest fanprofile get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest fanprofile get |
|  | run | Execute the fan profile that appoint to. |
| <jsonfile> | The fan profile json data for running.  {  "strMode": "default"  } |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest fanprofile run fanProfileRun \_AMI.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest fanprofile run fanProfileRun \_AMI.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest fanprofile run fanProfileRun\_AMI.json |

* 1. pamorder

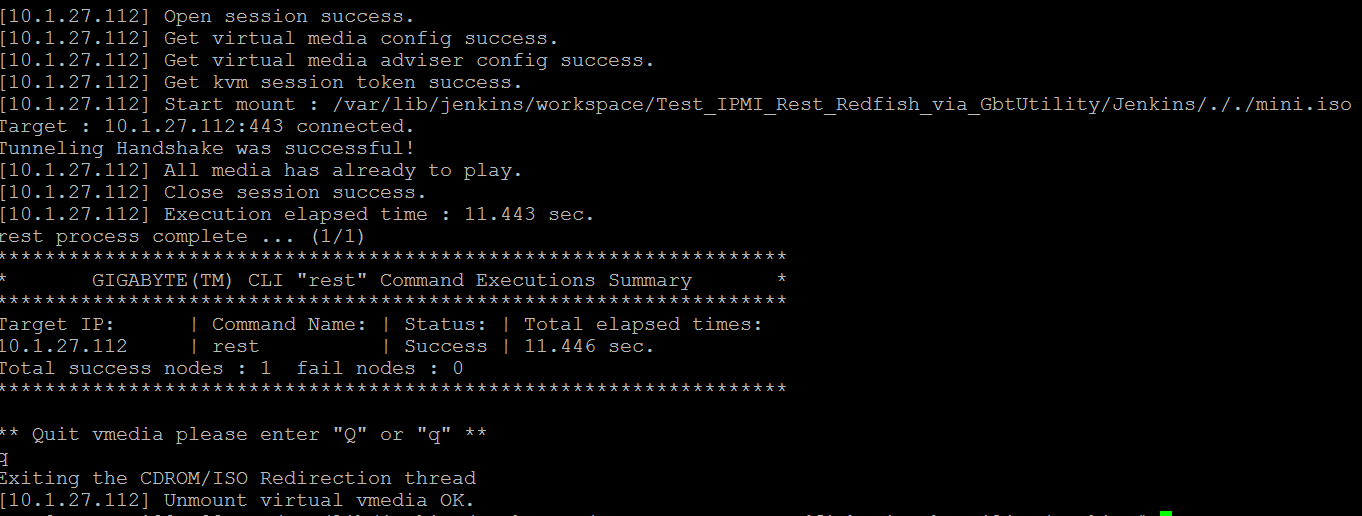
Set or get PAM order configurations by REST command.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest pamorder <get | set> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get the current settings of PAM order configurations. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest pamorder get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest pamorder get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest pamorder get |
|  | set | Set the PAM order configurations of BMC. |
| <jsonfile> | The PAM order configurations json data.  [  {  "id": 1,  "pam\_position": 1,  "pam\_module\_name": "IPMI"  },  {  "id": 2,  "pam\_position": 2,  "pam\_module\_name": "LDAP"  },  { "id": 3,  "pam\_position": 3,  "pam\_module\_name": "ACTIVE DIRECTORY"  },  { "id": 4,  "pam\_position": 4,  "pam\_module\_name": "RADIUS"  }  ] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest pamorder set examples/rest/pamconfig.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest pamorder set examples/rest/pamconfig.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S ssdp rest pamorder set examples/rest/pamconfig.json |

* 1. vmedia

Mount ISO image command.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest vmedia mount <isofile> |
| API options | | Description of API options and other arguments. |
|  | mount | Mount ISO image. |
| <isofile> | Mount image files. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest vmedia mount /home/ubuntu.iso |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest vmedia mount /home/ubuntu.iso |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest vmedia mount /home/ubuntu.iso |

****

* 1. nodeinfo

Get BMC node information. (only for CMC)

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest nodeinfo get |
| API options | | Description of API options and other arguments. |
|  | get | Get BMC node information. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest nodeinfo get |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest nodeinfo get |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest nodeinfo get |

* 1. gpuinfo

Get GPU information.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest gpuinfo |
| API options | | Description of API options and other arguments. |
|  | N/A | No option. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest gpuinfo |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest gpuinfo |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest gpuinfo |

* 1. fpgainfo

Get FPGA information.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest fpgainfo |
| API options | | Description of API options and other arguments. |
|  | N/A | No option. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest fpgainfo |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest fpgainfo |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest fpgainfo |

* 1. nvswitchinfo

Get NVSwitch information.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] rest nvswitchinfo |
| API options | | Description of API options and other arguments. |
|  | N/A | No option. |
| by nodelist: | java -jar GbtUtility-${project.version}.jar rest nvswitchinfo |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 rest nvswitchinfo |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.1.27.1,10.1.27.150 rest nvswitchinfo |

1. Redfish Command
   1. Abstract:

BMC supported Redfish service API.

* 1. Common usage:

java -jar GbtUtility-x.x.x.jar [options] redfish <apiNmae> <apiOpt> [args...]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameters | Description | | | |
| [options] | GbtUtility command common options. | | | |
| Option: | | Option description: | |
| -H | | Single host of BMC IP address. | |
| -S | | Scan the BMC IP addressses by RMCP or SSDP protocol. | |
| -U | | Set BMC IPMI username. (use default value when user doesn't provide) | |
| -P | | Set BMC IPMI password. (use default value when user doesn't provide) | |
| -RU | | Set BMC Redfish username. (use default value when user doesn't provide) | |
| -RP | | Set BMC Redfish password. (use default value when user doesn't provide) | |
| -h | | Print help messages of GbtUtility command usage. | |
| <apiName> | Redfish API names in GbtUtility. The menu of Redfish API names as follows. The details of all API names will start at 5-3. And the gray area of options table shown the simple usage examples. | | | |
| No: | Name: | | API name description: |
|  | accountservice | | The properties are common to all user accounts, such as password requirements. |
|  | bios | | Actions for changing to BIOS settings. |
|  | chassis | | Chassis contains system reset action, identify LED settings. |
|  | ethernet | | Represents a single, logical ethernet interface or network interface controller (NIC). |
|  | eventservice | | Managing event subscriptions and generates the events sent to subscribers. |
|  | jsonschemas | | The JSON Schema File resource data. |
|  | logservice | | Log service settings, system, SEL ... |
|  | managers | | System manager resource (Ex : BMC) control some actions and settings. |
|  | memory | | Memory information and settings. |
|  | networkprotocol | | Network protocol settings of manager. |
|  | power | | Power device, supply information. |
|  | processors | | Processors information. |
|  | raw | | The raw direct request to Redfish service API. |
|  | registries | | Show systems registries information. |
|  | roles | | The roles information of account. |
|  | secureboot | | The secure boot settings and actions. |
|  | serial | | The serial interfaces settings and actions. |
|  | session | | Session service information. |
|  | systems | | Systems represents a general purposed machine. Ex: boot options, system reset actions. |
|  | taskservice | | Task information itself and has links to the actual collection of Task resources. |
|  | thermal | | It represents the properties for Temperature and Cooling. |
|  | updateservice | | Do simple update and get update action info. |
| <apiOpt> | Redfish API options of given "<apiNmae>". | | | |
| [args...] | The rest arguments of given "<apiNmae>" in each Redfish API. (If needed) | | | |

* 1. accountservice

Redfish account service API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice <get | list | add | modify | delete | info | config | pamconfig> [args...] |
| API options | | Description of API options and other arguments. |
|  | get | Get single account information. |
| <id> | The ID number of accounts in members of accounts collection. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice get <id> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice get 1 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice get 2 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice get 3 |
|  | list | Show all accounts in the members of accounts collection. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice list |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice list |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice list |
|  | add | Add new manager account to BMC for Redfish service API. |
| <jsonFile> | The json data of new account. For example:  {  "UserName" : "GIGABYTE",  "Password" : "your password",  "RoleId" : "Administrator",  "Enabled" : true,  "Locked" : false  }  More details description about manager account properties, please see : http://redfish.dmtf.org/schemas/v1/ManagerAccount.v1\_0\_3.json#  /definitions/ManagerAccount |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice add <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice add examples/redfish/account\_add.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice add examples/redfish/account\_add.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice add examples/redfish/account\_add.json |
|  | modify | Modify the configurations of exist account resource. |
| <id> | The ID number of account resource which you want to change something properties. |
| <jsonFile> | The json data of new account. The properties that available to change as same as <add> option's examples. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice modify <id> <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice modify 1 examples/redfish/account\_modify.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice modify 2 examples/redfish/account\_modify.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice modify 3 examples/redfish/account\_modify.json |
|  | delete | Delete the exist account resource. |
| <id> | The ID number of account resource which you want to delete. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice delete <id> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice delete 1 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice delete 2 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice delete 3 |
|  | info | Show account service configuration. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice info |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice info |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice info |
|  | config | Modify account service configuration. |
| <jsonFile> | The json data of account service configuration. For example:  {  "AccountLockoutCounterResetAfter": 31,  "AccountLockoutDuration": 31,  "AccountLockoutThreshold": 6,  "AuthFailureLoggingThreshold": 5,  "ServiceEnabled": true  }  \* More details description about account service properties, please see :  http://redfish.dmtf.org/schemas/v1/AccountService.v1\_1\_1.json#  /definitions/AccountService |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice config <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice config examples/redfish/account\_config.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice config examples/redfish/account\_config.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice config examples/redfish/account\_config.json |
|  | pamconfig | Modify account service PAM configuration. |
| <jsonFile> | The json data of account service PAM configuration. For example:  {  "PAMEnabled" : true,  "PAMOrder" : [  "IPMI",  "LDAP",  "RADIUS",  "ACTIVE DIRECTORY"  ]  }  \* Note : "PAMOrder" need all 4 elements and you can change the order ot them. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice pamconfig <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice pamconfig examples/redfish/account\_pamconfig.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice pamconfig examples/redfish/account\_pamconfig.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice pamconfig examples/redfish/account\_pamconfig.json |
|  | paminfo | Show account service PAM configuration. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish accountservice paminfo |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish accountservice paminfo |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish accountservice paminfo |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish accountservice paminfo |

* 1. bios

Redfish BIOS API.

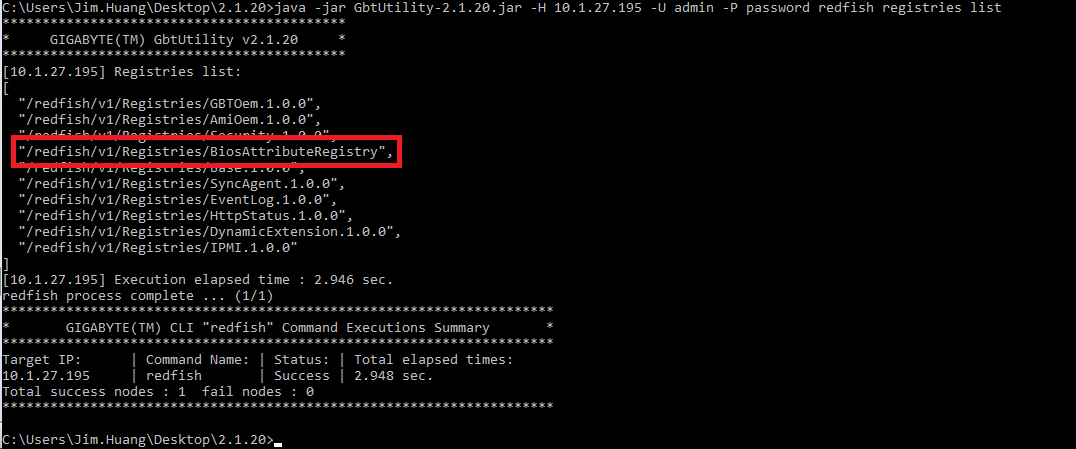
|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish bios <info|sd|reset|password> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show BIOS resource information. |
| [ID] | The system resource ID in Redfish system collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish bios info [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish bios info Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish bios info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish bios info |
|  | sd | BIOS menu setting. |
| <get|post> | Get/Set values of BIOS menu which will be set after the next boot. |
| [ID] | The system resource ID in Redfish system collection (default will choose the first ID). |
| <json> | The JSON data of BIOS menu setting which you want to set.  1. Before post sd.json, please get current values of BIOS menu first, you can refer to 3.32.2-1 <info>.  2. If you want to know every avaliable values of registries, please refer to 3.32.14 registries to get BIOS registries information.  3. About the format of sd.json, you can refer to examples/redfish/bios\_sd.json |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish bios sd get [ID]  java -jar GbtUtility-${project.version}.jar [options] redfish bios sd post [ID] <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish bios sd get Self  java -jar GbtUtility-${project.version}.jar redfish bios sd post Self examples/redfish/bios\_sd.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish sd get  java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish sd post examples/redfish/bios\_sd.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish bios sd get  java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish bios sd post examples/redfish/bios\_sd.json |
|  | reset | Reset BIOS menu to default. |
| [ID] | The system resource ID in Redfish system collection (default will choose the first ID). |
| <reset\_type> | Reset type, only support "Reset" now. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish bios reset [ID] <reset\_type> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish bios reset Self Reset |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish bios reset Reset |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish bios reset Reset |
|  | password | Change BIOS password. |
| [ID] | The system resource ID in Redfish system collection (default will choose the first ID). |
| <json> | The JSON data of BIOS password.  1. The value of "PasswordName" in password.json may different according to BIOS, please refer to 3.32.14 registries to get BIOS registries information.  2. You can find the "AttributeName" of "Administrator Password" and "User Password" in BIOS registries information. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish bios password [ID] <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish bios password Self examples/redfish/bios\_password.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish bios password examples/redfish/bios\_password.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish bios password examples/redfish/bios\_password.json |

**How to check Remote BIOS Setup is ready:**

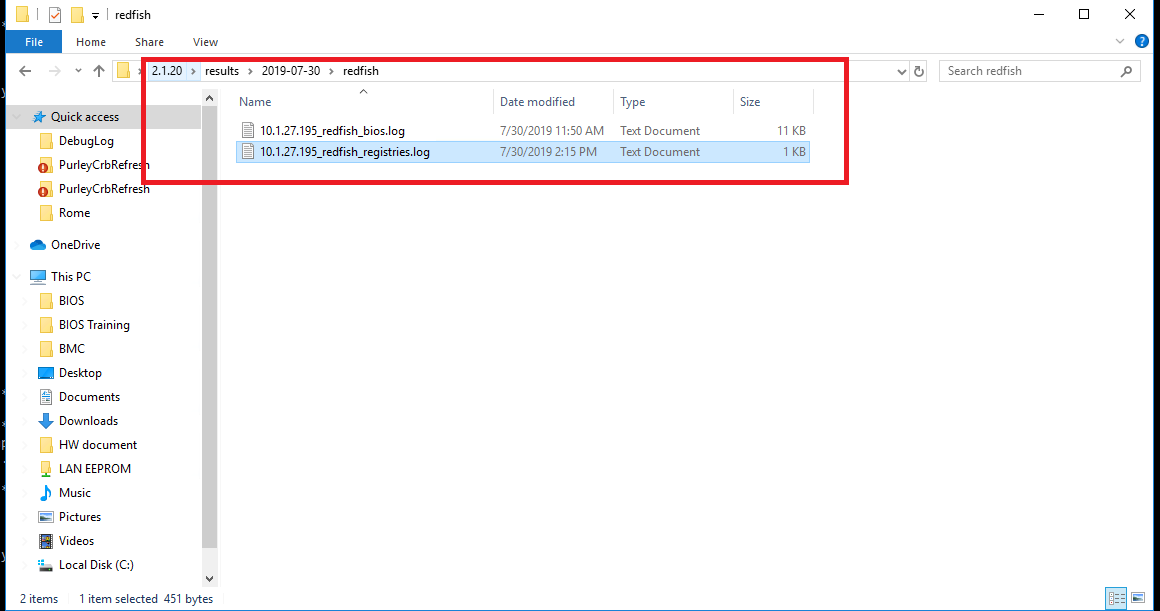
1. Please use GbtUtility version 2.1.19 or latest.

2. Please wait system Boot into OS or Shell.

3. Enter command “java -jar GbtUtility-2.1.21.jar -H {IP} -RU {Redfish account} -RP {Redfishpassword} redfish registries list”



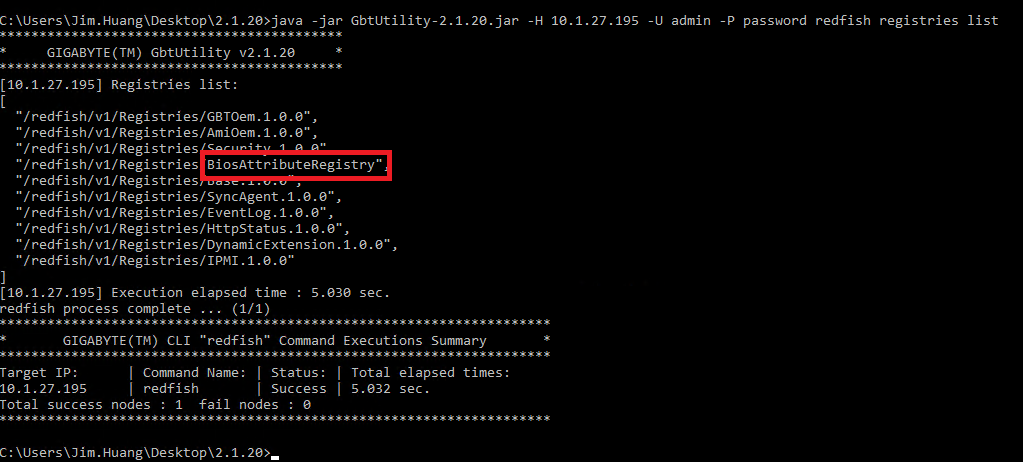
4. Enter command “java -jar GbtUtility-2.1.21.jar -H {IP} -RU {Redfish account} -RP {Redfish password} redfish registries get BiosAttributeRegistry(This name should match above picture )” and you can find the result in “2.1.21\results\{date}\redfish\{IP}\_redfish\_registries.log”



5. Enter command “java -jar GbtUtility-2.1.21.jar -H {IP} -RU {Redfish account} -RP {Redfish password} redfish bios info” and you can also find the log in “2.1.21\results\{date}\ redfish\{IP}\_redfish\_bios.log”.

6. Open {IP}\_redfish\_bios.log file and check that the "AttributeRegistry": "BiosAttributeRegistry" is match in “redfish/v1/Registries/ BiosAttributeRegistry”



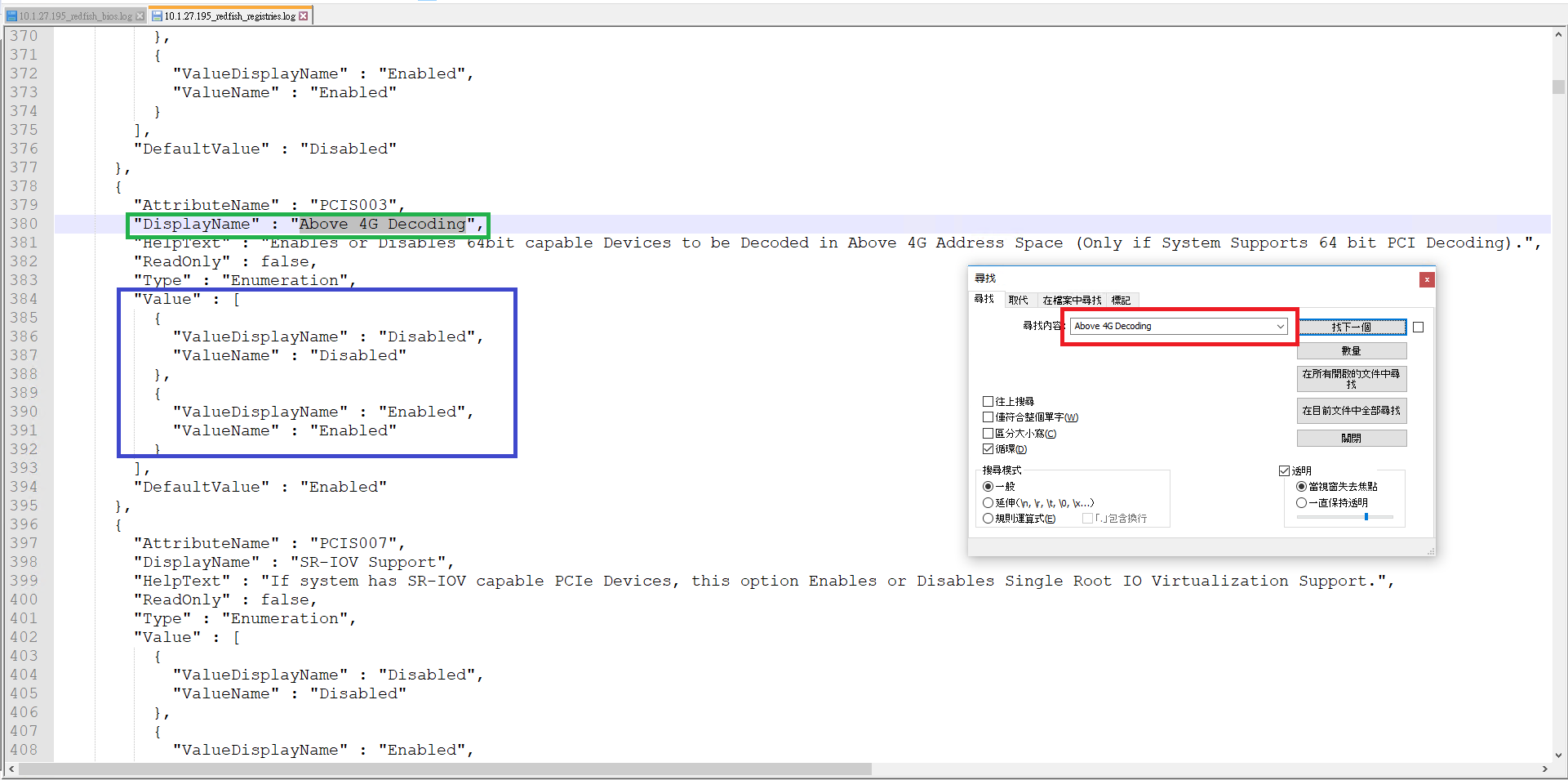


**How to get Setup item Attribute name:**

Now we using “Above 4G Decoding” for example:

1. Search “Above 4G Decoding” in “{IP}\_redfish\_registries.log” file and you can get the Attribute name “PCIS003”

2. You also can know this item has options which you can choose, So you can choose “Enabled” or “Disabled” for the item “PCIS003”.



3. If you want to know this item current value, please search “PCIS003” in “GET https://{IP}/redfish/v1/Systems/Self/Bios”



**How to modify Setup item current value:**

1. Please follow this format:

{

"Attributes":{

"PCIS003": "Disabled",

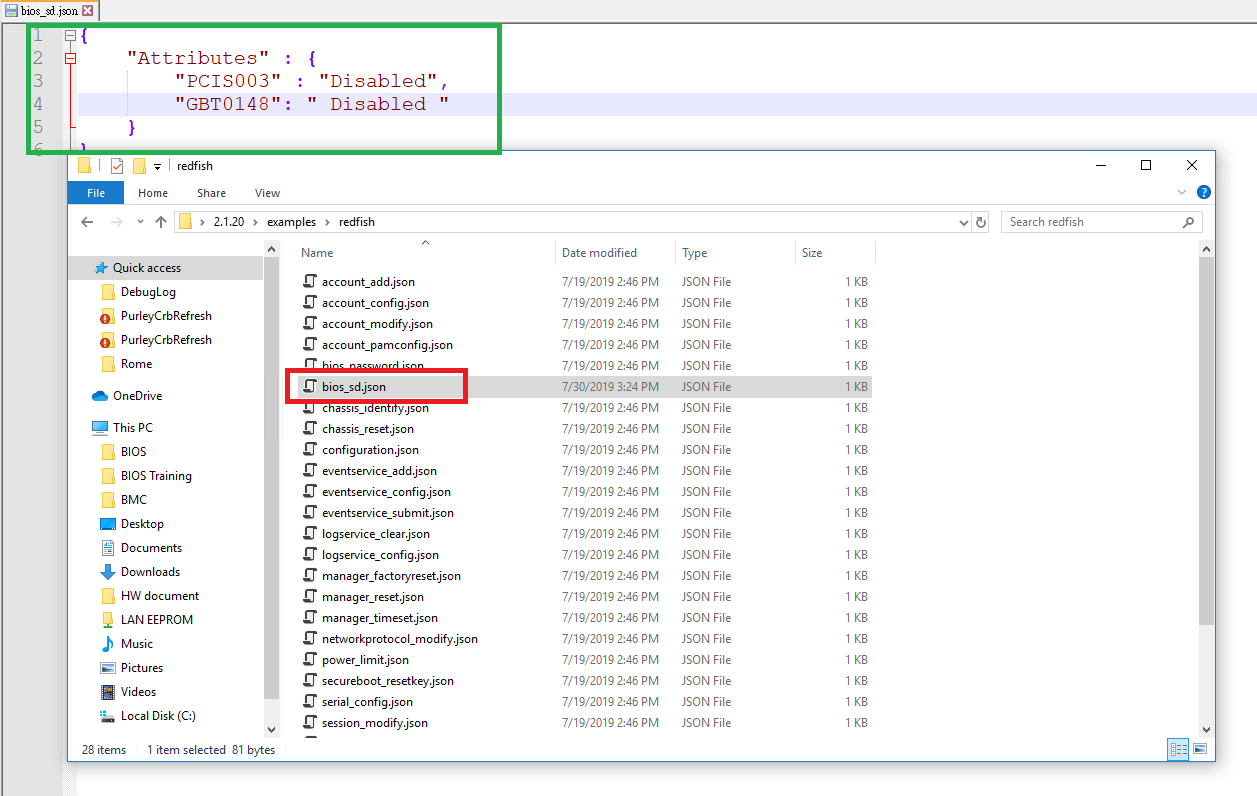
"GBT0148": "Disabled"

}

}

This mean the item “PCIS003” set the current value to “Disable” and so on…

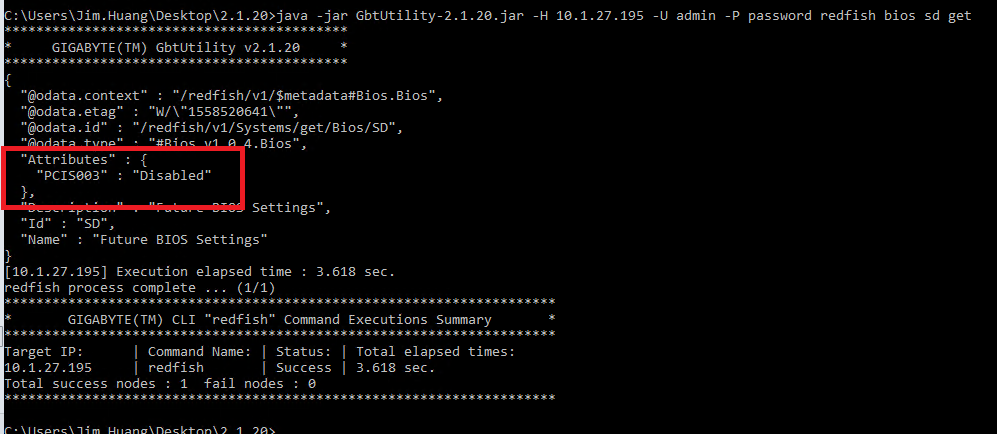
2. Please add item which you want to modify into bios\_sd.json(2.1.21\examples\redfish)



3. Enter command “java -jar GbtUtility-2.1.21.jar -H *{IP}* -RU *{Redfish account}* -RP *{Redfish password}* redfish bios sd post examples/redfish/bios\_sd.json”, HttpStatus is 204 represents success.



4. You can check the command “java -jar GbtUtility-2.1.21.jar -H *{IP}* -RU *{Redfish account}* -RP *{Redfish password}* redfish bios sd get”

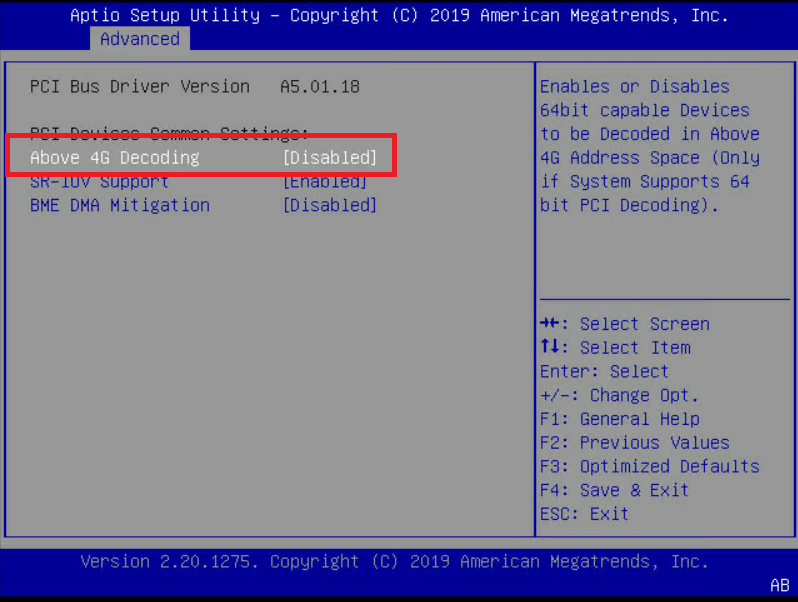


5. Reboot system

6. Wait for system boot in to Shell or OS to make sure BIOS modify item completely.

7. There are two way to check BIOS modify item successfully.

8. Enter BIOS Setup and make sure the item value is the same value which you want.

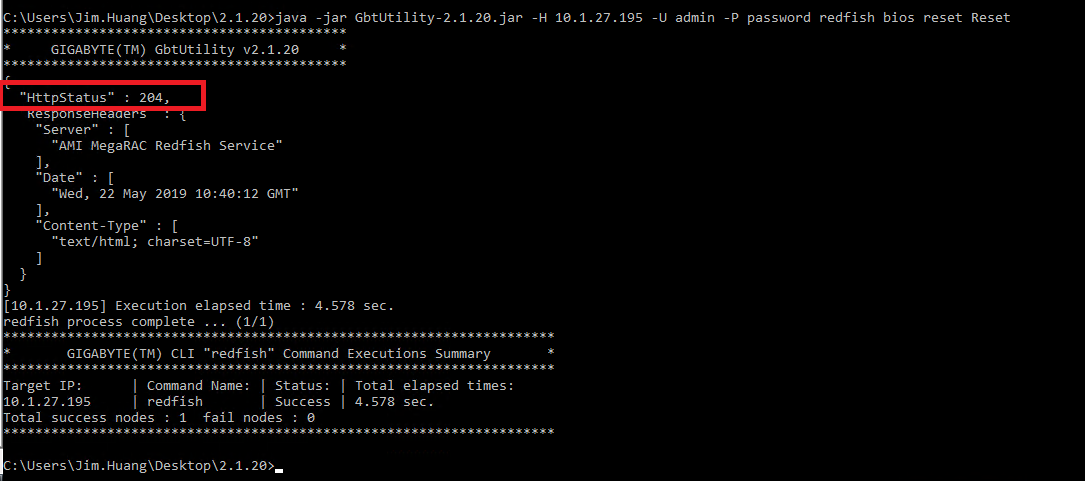


9. Enter command “java -jar GbtUtility-2.1.21.jar -H *{IP}* -RU *{Redfish account}* -RP *{Redfish password}* redfish bios info” and open “{IP}\_redfish\_bios.log” file to check.



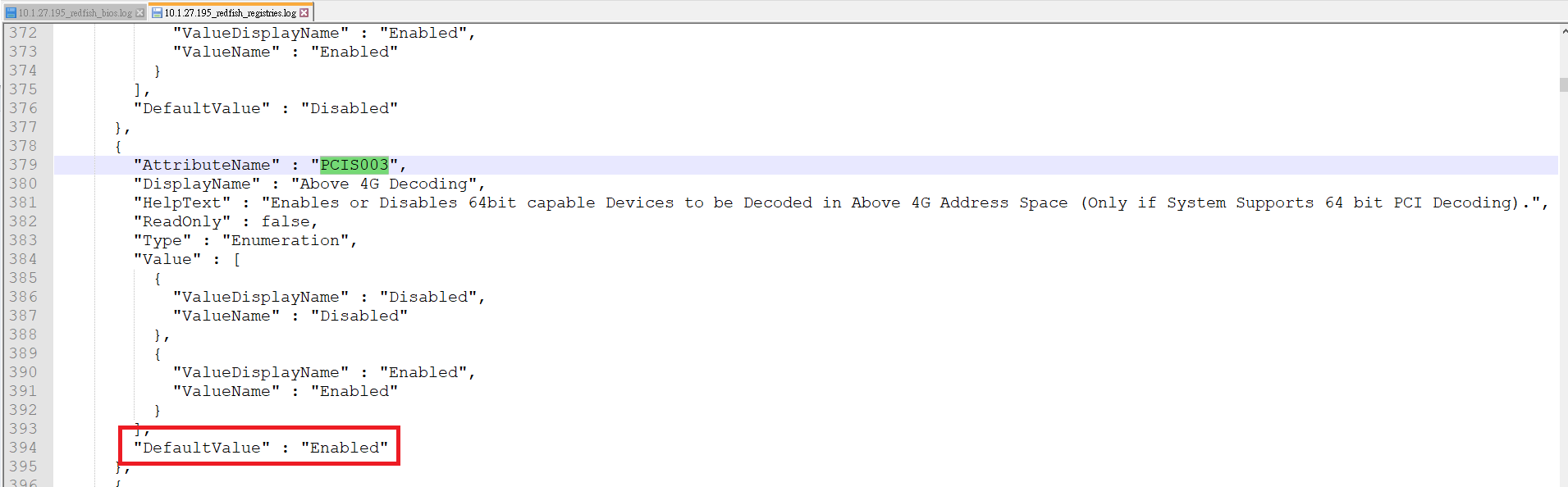
**How to load BIOS default setting:**

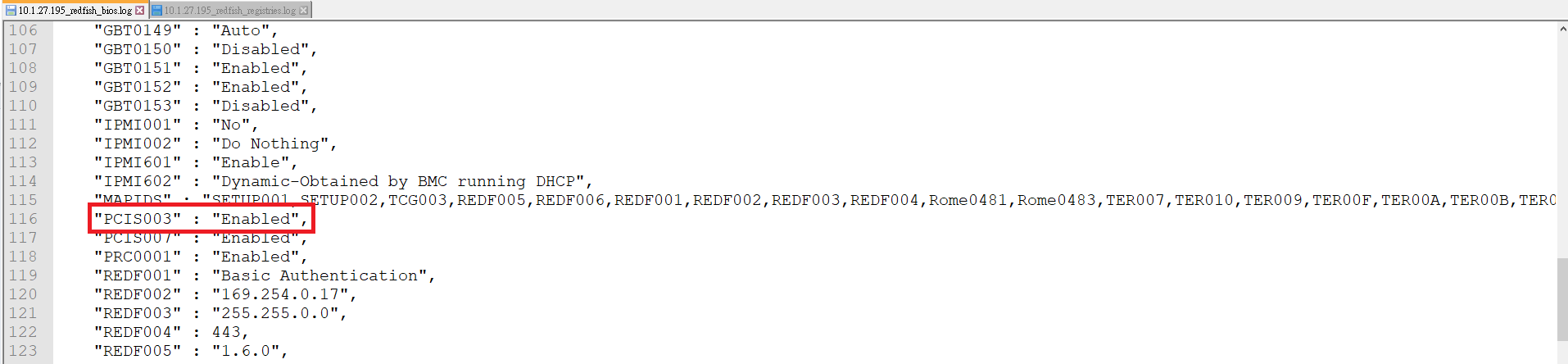
1. Enter command “java -jar GbtUtility-2.1.21.jar -H *{IP}* -RU *{Redfish account}* -RP *{Redfish password}* redfish bios reset Reset”



2. Reset system and wait for system boot into OS or Shell.

3. Check the item current value is the same “DefaultValue” or not.





**How to change Password:**

1. SETUP001 -> Administrator Password

2. SETUP002 -> User Password.

3. Set Password (Modify bios\_sd.json(2.1.21\examples\redfish))

{

"PasswordName": "SETUP002",

"OldPassword": "",

"NewPassword": "{ Your password}"

}

4. Remove Password (Modify bios\_sd.json (2.1.21\examples\redfish))

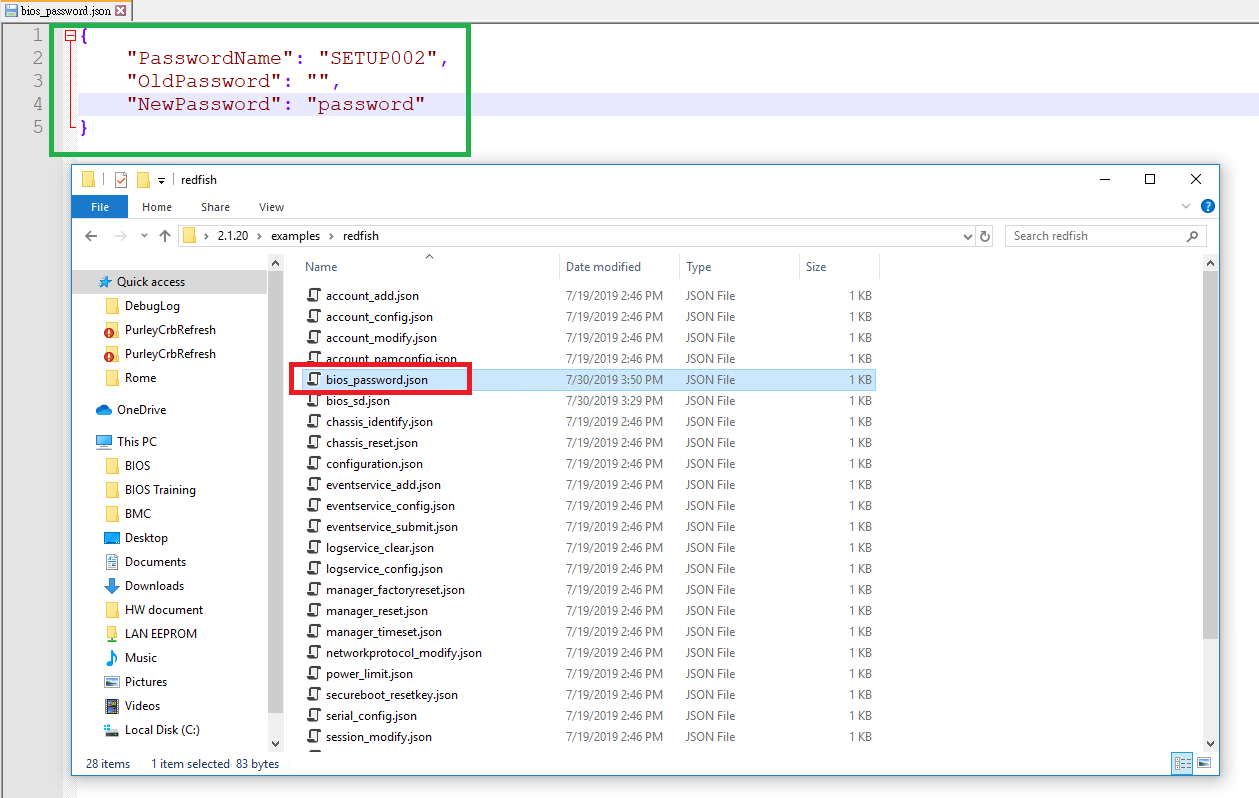
{

"PasswordName": "SETUP002",

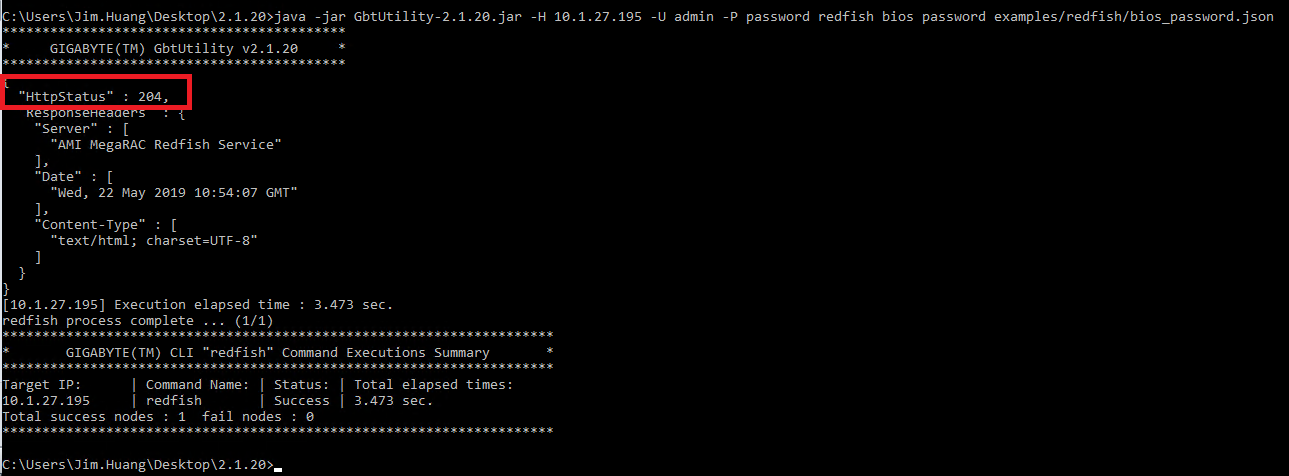
"OldPassword": "{Your password}",

"NewPassword": ""

}



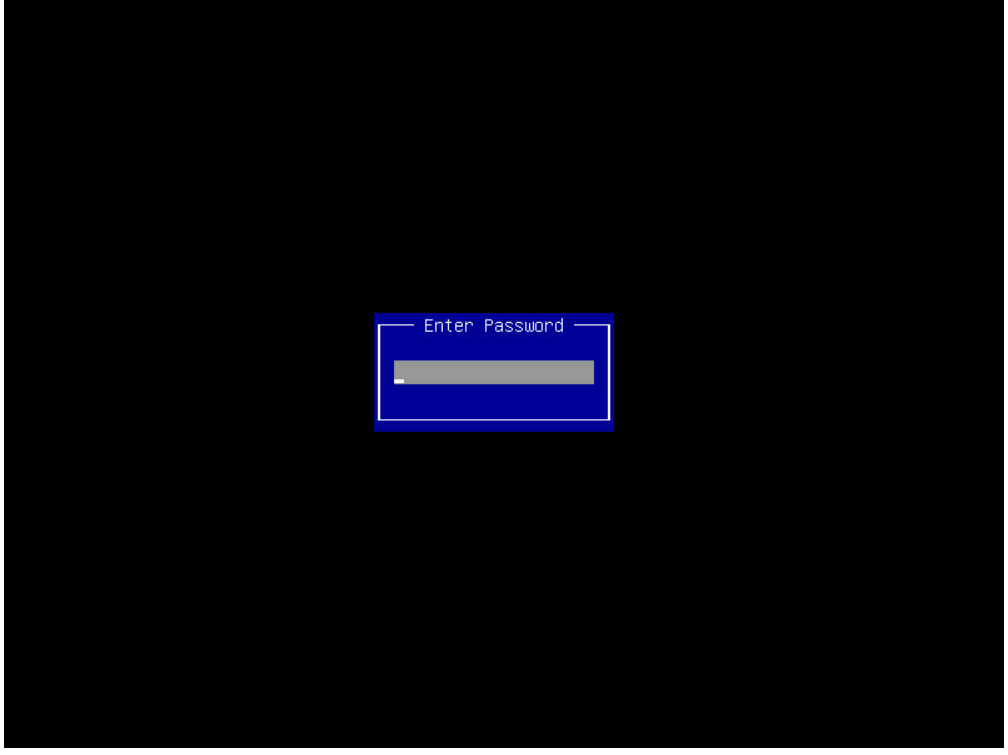
5. Enter command “java -jar GbtUtility-2.1.21.jar -H *{IP}* -RU *{Redfish account}* -RP *{Redfish password}* redfish bios password examples/redfish/bios\_password.json”



6. Reset system and wait for system boot into OS or Shell.

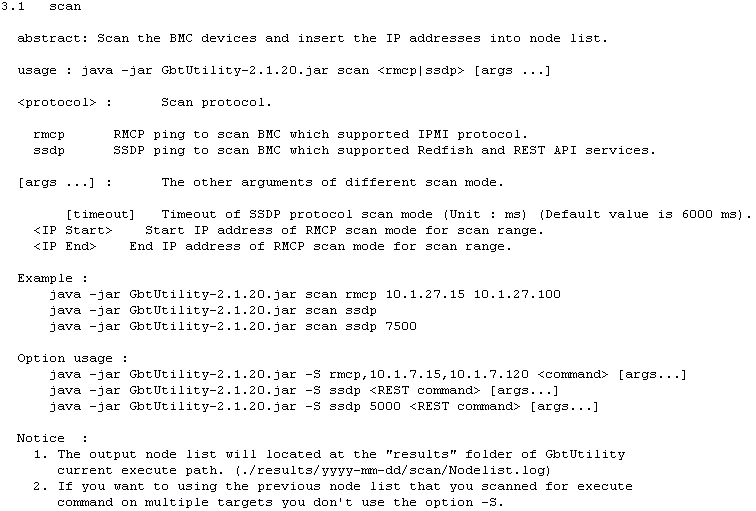
7. If you set password is Administrator Password, BIOS will ask you enter password before enter BIOS Setup.

8. If you set password is User Password, BIOS will ask you enter password during booting.

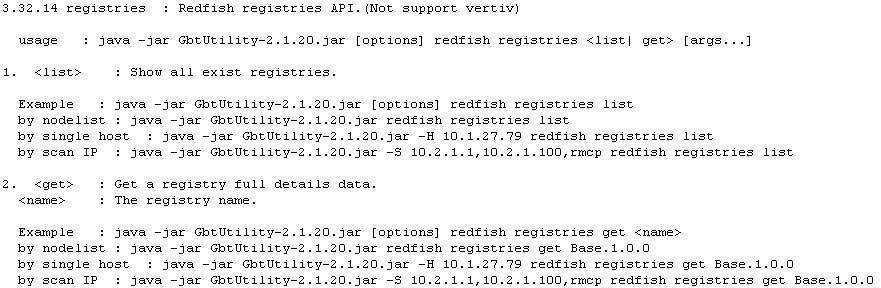


**How to send command to multi-nodes**

1. Please reference “GbtReadme.txt” in GbtUtility release package.

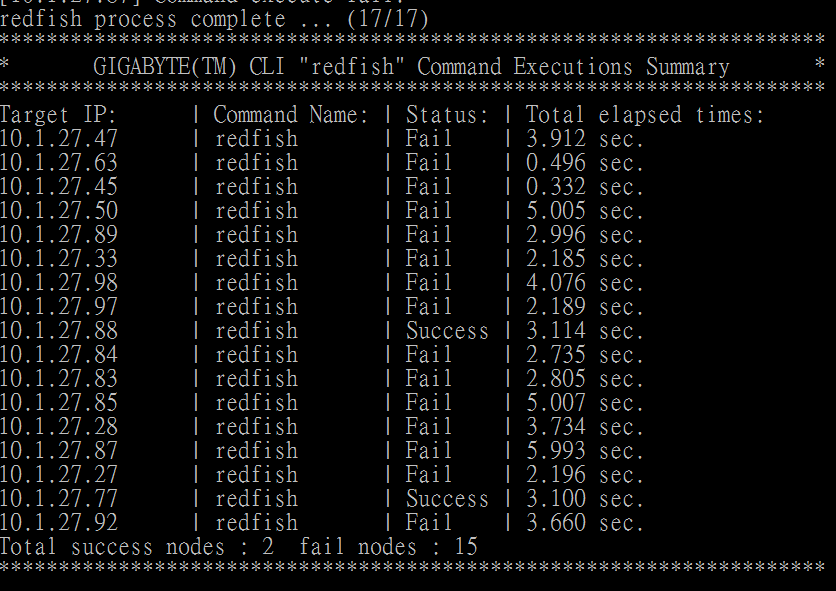


2. There has example under each command description.



3. For example by scan IP, use “java -jar GbtUtility-2.1.21.jar -S rmcp,{IP Range Start},{IP Range End} -RU {Redfish account} -RP {Redfish password} {Redfish command} to send command.

ex: java -jar GbtUtility-2.1.21.jar -S rmcp,10.1.27.1,10.1.27.100 -RU admin -RP password redfish bios info



* 1. chassis

Redfish chassis API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish chassis <info | identify | reset> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show chassis resource information. |
| [ID] | The chassis resource ID in Redfish chassis collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish chassis info [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish chassis info Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish chassis info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish chassis info Self |
|  | identify | Chassis identify LED light setting. |
| [ID] | The chassis resource ID in Redfish chassis collection (default will choose the first ID). |
| <jsonFile> | The LED light settings. The example of json body as:  {  "IndicatorLED":"Lit"  }  The property of "IndicatorLED" allows "Blinking", "Off" and "Lit". (Blinking will Lit for 15 seconds and auto Off.) |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish chassis identify [ID] <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish chassis identify Self identify examples/redfish/chassis\_identify.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish chassis identify examples/redfish/chassis\_identify.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish chassis identify examples/redfish/chassis\_identify.json |
|  | reset | Chassis reset action, It will load default values of Redfsih chassis resource. |
| [ID] | The chassis resource ID in Redfish chassis collection (default will choose the first ID). |
| <jsonFile> | The reset type of reset action. The example of json body as:  {  "ResetType":"On"  }  The property of "ResetType" allows "On", "ForceOff", "GracefulShutdown" and "ForceRestart" |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish chassis reset [ID] <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish chassis reset Self examples/redfish/chassis\_reset.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish chassis reset examples/redfish/chassis\_reset.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish chassis reset examples/redfish/chassis\_reset.json |

* 1. ethernet

Redfish ethernet interfaces API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish ethernet <list | get> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | list | Show all ethernet interfaces in manager. |
| [ID] | The manager resource ID in Redfish managers collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish ethernet list [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish ethernet list Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish ethernet list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish ethernet list Self |
|  | get | Chassis identify LED light setting. |
| [ID] | The manager resource ID in Redfish managers collection (default will choose the first ID). |
| <name> | Ethernet interface name. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish ethernet get [ID] <name> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish ethernet get Self eth1 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish ethernet get usb0 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish ethernet get eth0 |

* 1. eventservice

Redfish event service API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish eventservice  <info | list | modify | submit | get | add | delete> [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show event service information. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish eventservice info |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish eventservice info |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish eventservice info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish eventservice info |
|  | list | Show all event destination in event service subscriptions collection. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish eventservice list |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish eventservice list |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish eventservice list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish eventservice list |
|  | modify | Modify event service configurations. |
| <jsonFile> | The json data of event service configuration. For example:  {  "ServiceEnabled": true  } |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish eventservice modify <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish eventservice modify examples/redfish/eventservice\_config.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish eventservice modify examples/redfish/eventservice\_config.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish eventservice modify examples/redfish/eventservice\_config.json |
|  | submit | Submit test event type action. |
| <jsonFile> | The json data of test event types for action. For example:  {  "EventType" : "Alert"  }  Allowable event types : "StatusChange", "ResourceUpdated", "ResourceAdded", "ResourceRemoved" and "Alert". |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish eventservice submit <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish eventservice submit examples/redfish/eventservice\_submit.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish eventservice submit examples/redfish/eventservice\_submit.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish eventservice submit examples/redfish/eventservice\_submit.json |
|  | get | Get single event destination in event service subscriptions collection. |
| <num> | The number of the subscription. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish eventservice get <num> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish eventservice get 2 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish eventservice get 1 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish eventservice get 3 |
|  | add | Add new event destination in event service subscriptions collection. |
| <jsonFile> | The json data of test event destination. For example:  {  "Context" : "Test event destination of multiple event type",  "Destination" : "https://www.xxx.com",  "Description" : "Example test subscription of Redfish service API",  "EventTypes" : [  "Alert",  "StatusChange",  "ResourceUpdated"  ],  "Name" : "GIGABYTE",  "Protocol": "Redfish"  }  "EventTypes" properties allowable values as same as the submit action. More details of event destination see: http://redfish.dmtf.org/schemas/v1/EventDestination.v1\_1\_1.json#/  definitions/EventDestination |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish eventservice add <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish eventservice add examples/redfish/eventservice\_add.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish eventservice add examples/redfish/eventservice\_add.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish eventservice add examples/redfish/eventservice\_add.json |
|  | delete | Delete exist event destination in event service subscriptions collection. |
| <num> | The number of the subscription. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish eventservice delete <num> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish eventservice delete 2 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish eventservice delete 1 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish eventservice delete 3 |

* 1. jsonschemas

Redfish json schemas API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish jsonschemas <list| get> [args...] |
| API options | | Description of API options and other arguments. |
|  | list | Show all exist json schemas. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish jsonschemas list |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish jsonschemas list |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish jsonschemas list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish jsonschemas list |
|  | get | Get a json schema full details data. |
| <name> | The json schema name. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish jsonschemas get <name> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish jsonschemas get Configurations.v1\_0\_0 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish jsonschemas get Configurations.v1\_0\_0 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish jsonschemas get Configurations.v1\_0\_0 |

* 1. logservice

Redfish log service API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish logservice <tar> [ID] <list | get | modify | log | clear> [args...] |
| API options | | Description of API options and other arguments. |
|  | list | Show all log service in the different main resources. |
| <tar> | Target resource type. The LogService located at "Managers", "Chassis" and "Systems" three main resources. User need to choose the one of them. Allows values of <tar> : "manager", "chassis", "system". |
| [ID] | The resource ID in the "Managers", "Chassis" or "Systems" collection.  (default will choose the first ID in their collection) |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish logservice <tar> [ID] list |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish logservice manager Self list |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish logservice system list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish logservice chassis Self list |
|  | get | Get a log service details information. |
| <tar> | Target resource type. The LogService located at "Managers", "Chassis" and "Systems" three main resources. User need to choose the one of them. Allows values of <tar> : "manager", "chassis", "system". |
| [ID] | The resource ID in the "Managers", "Chassis" or "Systems" collection.  (default will choose the first ID in their collection) |
| <name> | The log service resource name. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish logservice <tar> [ID] get <name> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish logservice system Self get BIOS |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish logservice chassis get Logs |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish logservice manager Self get SEL |
|  | modify | Modify a log service configurations. |
| <tar> | Target resource type. The LogService located at "Managers", "Chassis" and "Systems" three main resources. User need to choose the one of them. Allows values of <tar> : "manager", "chassis", "system". |
| [ID] | The resource ID in the "Managers", "Chassis" or "Systems" collection.  (default will choose the first ID in their collection) |
| <name> | The log service resource name. |
| <json> | The json data file of modification. For example:  {  "DateTime" : "2018-07-30T17:20:17-05:00",  "DateTimeLocalOffset" : "-05:00",  "ServiceEnabled" : true  }  More detials properties about LogService see: http://redfish.dmtf.org/schemas/v1/LogService.v1\_0\_3.json#/definitions/LogService |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish logservice <tar> [ID] modify <name> <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish logservice system Self modify BIOS examples/redfish/logservice\_config.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish logservice chassis modify Logs examples/redfish/logservice\_config.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish logservice manager modify SEL examples/redfish/logservice\_config.json |
|  | log | Get all log entries in given log service. |
| <tar> | Target resource type. The LogService located at "Managers", "Chassis" and "Systems" three main resources. User need to choose the one of them. Allows values of <tar> : "manager", "chassis", "system". |
| [ID] | The resource ID in the "Managers", "Chassis" or "Systems" collection.  (default will choose the first ID in their collection) |
| <name> | The log service resource name. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish logservice <tar> [ID] log <name> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish logservice system Self log BIOS |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish logservice chassis log Logs |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish logservice manager Self log SEL |
|  | clear | Clear all log entries in given log service. |
| <tar> | Target resource type. The LogService located at "Managers", "Chassis" and "Systems" three main resources. User need to choose the one of them. Allows values of <tar> : "manager", "chassis", "system". |
| [ID] | The resource ID in the "Managers", "Chassis" or "Systems" collection.  (default will choose the first ID in their collection) |
| <name> | The log service resource name. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish logservice <tar> [ID] clear <name> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish logservice system Self clear BIOS |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish logservice chassis clear Logs |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish logservice manager Self clear SEL |

* 1. managers

Redfish manager API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish managers <info | timeset | reset> [ID] [args] |
| API options | | Description of API options and other arguments. |
|  | info | Show managers service configuration. |
| [ID] | The manager resource ID in Redfish managers collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish managers info [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish managers info Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish managers info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish managers info |
|  | timeset | Set the time of the manager. |
| [ID] | The manager resource ID in Redfish managers collection (default will choose the first ID). |
| <json> | Manager time json data file.  {  "DateTime" : "2018-08-09T09:32:03+08:00",  "DateTimeLocalOffset": "+08:00"  } |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish managers get [ID] <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish managers timeset Self examples/redfish/manager\_timeset.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish managers timeset Self examples/redfish/manager\_timeset.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish managers timeset examples/redfish/manager\_timeset.json |
|  | reset | Manager reset action, It will load default values of Redfsih manager resource. |
| [ID] | The manager resource ID in Redfish managers collection (default will choose the first ID). |
| <jsonFile> | The reset type of reset action. The example of json body as:  {  "ResetType":"ForceRestart"  }  The property of "ResetType" only allows "ForceRestart" |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish managers reset [ID] <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish managers reset Self examples/redfish/manager\_reset.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish managers reset Self examples/redfish/manager\_reset.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish managers reset examples/redfish/manager\_reset.json |

* 1. memory

Redfish memory API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish memory <list| get> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | list | Show all exist memories. |
| [ID] | The system resource ID in Redfish system collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish memory list [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish memory list Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish memory list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish memory list |
|  | get | Get a memory details information. |
| [ID] | The system resource ID in Redfish system collection (default will choose the first ID). |
| <memID> | The memory resource ID. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish memory get [ID] <memID> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish memory get Self 2 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish memory get Self 10 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish memory get 5 |

* 1. networkprotocol

Redfish network protocol API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish networkprotocol <get> [ID] |
| API options | | Description of API options and other arguments. |
|  | get | Get a networkprotocol details information. |
| [ID] | The manager resource ID in Redfish managers collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish networkprotocol get [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish networkprotocol get Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish networkprotocol get Self |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish networkprotocol get |

* 1. power

Redfish power API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish power <info|limit> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show power resource information. |
| [ID] | The chassis resource ID in Redfish chassis collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish power info [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish power info Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish power info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish power info Self |
|  | limit | Set power limit setting. |
| [ID] | The chassis resource ID in Redfish chassis collection (default will choose the first ID). |
| <json> | Power limit setting JSON data.  {  "PowerControl": [  {  "PowerLimit": {  "CorrectionInMs": 6000,  "LimitException": "NoAction",  "LimitInWatts": 130  }  }  ]  } |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish power limit [ID] <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish power limit Self examples/redfish/power\_limit.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish power limit examples/redfish/power\_limit.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish power limit Self examples/redfish/power\_limit.json |

* 1. processors

Redfish processors API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish processors <list | get> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | list | Show all processors resource members. |
| [ID] | The system resource ID in Redfish systems collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish processors list [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish processors list Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish processors list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish processors list Self |
|  | get | Get processor details information. |
| [ID] | The system resource ID in Redfish systems collection (default will choose the first ID). |
| <num> | Processor ID number. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish processors get [ID] <num> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish processors get Self 1 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish processors get 2 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish processors get Self 1 |

* 1. raw

Redfish raw API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish raw <get | post | patch | delete> <URI> [jsonFile] |
| API options | | Description of API options and other arguments. |
|  | get | HTTP GET method of Redfish resource URI. |
| <URI> | The target resource URI. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish raw get <URI> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish raw get /redfish/v1/AccountService/Accounts |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish raw get /redfish/v1/AccountService/Accounts |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish raw get /redfish/v1/AccountService/Accounts |
|  | post | HTTP POST method of Redfish resource URI. |
| <URI> | The target resource URI. |
| <jsonFile> | The file of post request entity. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish raw post <URI> <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish raw post /redfish/v1/AccountService/Accounts examples/redfish/account\_add.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish raw post /redfish/v1/AccountService/Accounts examples/redfish/account\_add.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish raw post /redfish/v1/AccountService/Accounts examples/redfish/account\_add.json |
|  | patch | HTTP PATCH method of Redfish resource URI. |
| <URI> | The target resource URI. |
| <jsonFile> | The file of patch request entity. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish raw patch <URI> <jsonFile> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish raw patch /redfish/v1/AccountService examples/redfish/account\_config.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish raw patch /redfish/v1/AccountService examples/redfish/account\_config.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish raw patch /redfish/v1/AccountService examples/redfish/account\_config.json |
|  | delete | HTTP DELETE method of Redfish resource URI. |
| <URI> | The target resource URI. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish raw delete <URI> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish raw delete /redfish/v1/AccountService/Accounts/2 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish raw delete /redfish/v1/AccountService/Accounts/2 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish raw delete /redfish/v1/AccountService/Accounts/2 |

* 1. registries

Redfish registries API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish registries <list| get> [args...] |
| API options | | Description of API options and other arguments. |
|  | list | Show all exist registries. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish registries list |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish registries list |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish registries list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish registries list |
|  | get | Get a registry full details data. |
| <name> | The registry name. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish registries get <name> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish registries get Base.1.0.0 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish registries get Base.1.0.0 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish registries get Base.1.0.0 |

* 1. roles

Redfish roles API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish roles <list| get> [args...] |
| API options | | Description of API options and other arguments. |
|  | list | Show all exist roles. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish roles list |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish roles list |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish roles list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish roles list |
|  | get | Get a role full details data. |
| <name> | The role name. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish roles get <name> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish roles get Administrator |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish roles get ReadOnly |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish roles get Operator |

* 1. secureboot

Redfish secure boot API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish secureboot <info|actioninfo|enable|disable|resetkey> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show secure boot resource information. |
| [ID] | The system resource ID in Redfish systems collection  (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish secureboot info [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish secureboot info Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish secureboot info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish secureboot info |
|  | actioninfo | Show allowed values of reset keys. |
| [ID] | The system resource ID in Redfish systems collection  (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish secureboot actioninfo [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish secureboot actioninfo Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish secureboot actioninfo |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish secureboot actioninfo |
|  | enable | Enable secure boot function.  After command is complete, please power reset to make the configuration work. |
| [ID] | The system resource ID in Redfish systems collection  (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish secureboot enable [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish secureboot enable Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish secureboot enable |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish secureboot enable |
|  | disable | Disable secure boot function.  After command is complete, please power reset to make the configuration work. |
| [ID] | The system resource ID in Redfish systems collection  (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish secureboot disable [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish secureboot disable Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish secureboot disable |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish secureboot disable |
|  | resetkey | Manage secure boot key. |
| [ID] | The system resource ID in Redfish systems collection  (default will choose the first ID). |
| <action> | Action of manage keys.  Please according to the result of <actioninfo> to set value. (case-sensitive)  After command is complete, please power reset to make the configuration work. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish secureboot resetkey [ID] <action> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish secureboot resetkey Self DeletePK |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish secureboot resetkey DeleteAllKeys |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish secureboot resetkeys ResetAllKeysToDefault |

* 1. serial

Redfish serial interface API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish serial <info | get> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | list | Show all members of serial interfaces. |
| [ID] | The manager resource ID in Redfish managers collection  (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish serial list Self |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish serial list |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish serial list |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish serial list |
|  | get | Get single serial interface information. |
| [ID] | The manager resource ID in Redfish managers collection  (default will choose the first ID). |
| <name> | The name of serial in members of serial interface collection. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish serial get [ID] <name> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish serial get Self IPMI-SOL |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish serial get IPMI-SOL |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish serial get IPMI-SOL |

* 1. session

Redfish session API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish session <info | modify | add | get | delete> [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show session service configuration. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish session info |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish session info |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish session info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish session info |
|  | modify | Modify the configurations of session service. |
| <json> | The json data of configurations of session service.  {  "ServiceEnabled": true,  "SessionTimeout": 300  } |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish session modify <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish session modify examples/redfish/system\_modify.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish session modify examples/redfish/system\_modify.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish session modify examples/redfish/system\_modify.json |
|  | add | Add new session. |
| <json> | The json data of new session. For example:  {  "UserName": "Administrator",  "Password": "superuser"  } |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish session add <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish session add examples/redfish/system\_post.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish session add examples/redfish/system\_post.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish session add examples/redfish/system\_post.json |
|  | get | Get single session information. |
| <id> | The ID number of session in members of sessions collection. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish session get <id> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish session get 1 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish session get 2 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish session get 3 |
|  | delete | Delete the exist session resource. |
| <id> | The ID number of session resource which you want to delete. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish session delete <id> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish session delete 1 |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish session delete 2 |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish session delete 3 |

* 1. systems

Redfish systems API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish systems <info | boot | reset | identify> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show systems resource information. |
| [ID] | The system resource ID in Redfish systems collection (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish systems info [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish systems info |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish systems info Self |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish systems info |
|  | boot | Set boot option of system. |
| [ID] | The system resource ID in Redfish systems collection (default will choose the first ID). |
| <list|get> | Get content of single bios option or list all bios options. |
| <json> | The json data contains boot option data. We have two format:  Set single boot option to override:  {  "Boot" : {  "BootSourceOverrideEnabled": "Once",  "BootSourceOverrideMode": "UEFI",  "BootSourceOverrideTarget": "Pxe"  }  }  Or set boot options array to change BIOS setup menu.  {  "Boot": {  "BootOrder": [  "Boot0001",  "Boot0005",  "Boot0003",  "Boot0004",  "Boot0002"  ]  }  }  The boot option properties details description please see: htp://redfish.dmtf.org/schemas/v1/ComputerSystem.v1\_3\_0.json#  /definitions/ComputerSystem (Note: "Diags" is not support now) |
| (List BIOS options) | Example: java -jar GbtUtility-${project.version}.jar [options] redfish systems boot list  by nodelist: java -jar GbtUtility-${project.version}.jar redfish systems boot list  by single host: java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish systems boot list  by scan IP: java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish systems boot list |
| (Get sinlge BIOS option) | Example: java -jar GbtUtility-${project.version}.jar [options] redfish systems boot get 0001  by nodelist: java -jar GbtUtility-${project.version}.jar redfish systems boot get 0001  by single host: java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish systems boot get 0001  by scan IP: java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish systems boot get 0001 |
| (Patch BIOS options) | Example: java -jar GbtUtility-${project.version}.jar [options] redfish systems boot <json>  by nodelist: java -jar GbtUtility-${project.version}.jar redfish systems boot examples/redfish/system\_boot.json  by single host: java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish systems boot examples/redfish/system\_boot.json  by scan IP: java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish systems boot examples/redfish/system\_boot.json |
|  | reset | System reset action, It will load default values of Redfsih system resource. |
| [ID] | The system resource ID in Redfish systems collection (default will choose the first ID). |
| <json> | The reset type of reset action. The example of json body as:  {  "ResetType":"On"  }  The property of "ResetType" allows "On", "ForceOff", "GracefulShutdown", and "ForceRestart" |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish systems reset [ID] <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish systems reset Self examples/redfish/system\_reset.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish systems reset examples/redfish/system\_reset.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish systems reset examples/redfish/system\_reset.json |
|  | identify | System identify LED light setting. |
| [ID] | The system resource ID in Redfish systems collection (default will choose the first ID). |
| <json> | The LED light settings. The example of json body as:  {  "IndicatorLED":"Lit"  }  The property of "IndicatorLED" allows "Blinking", "Off" and "Lit". |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish systems identify [ID] <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish systems identify Self examples/redfish/system\_identify.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish systems identify examples/redfish/system\_identify.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish systems identify examples/redfish/system\_identify.json |

* 1. taskservice

Redfish task service API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish taskservice <info> [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show task service information. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish taskservice info |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish taskservice info |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish taskservice info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish taskservice info |

* 1. thermal

Redfish thermal API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish thermal <fan | temp> [ID] [args...] |
| API options | | Description of API options and other arguments. |
|  | fan | Show all fans sensor information. |
| [ID] | The chassis resource ID in Redfish chassis collection  (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish thermal fan [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish thermal fan Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish thermal fan |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish thermal fan Self |
|  | temp | Show all temperatures sensor information. |
| [ID] | The chassis resource ID in Redfish chassis collection  (default will choose the first ID). |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish thermal temp [ID] |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish thermal temp Self |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish thermal temp |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish thermal temp Self |

* 1. updateservice

Redfish update service API.

|  |  |  |
| --- | --- | --- |
| Usage: | | java -jar GbtUtility-${project.version}.jar [options] redfish updateservice <info | update> [args...] |
| API options | | Description of API options and other arguments. |
|  | info | Show simple update action info spec. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish updateservice info |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish updateservice info |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish updateservice info |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish updateservice info |
|  | update | Do simple update. |
| <json> | The json data contains simple update action:  {  "ImageURI" : "ftp://10.1.27.50/pub/F24.RBU",  "TransferProtocol": "FTP",  "UpdateComponent": "BIOS"  } |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish updateservice update <json> |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish updateservice update examples/redfish/simpleupdateinfo.json |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish updateservice update examples/redfish/simpleupdateinfo.json |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish updateservice update examples/redfish/simpleupdateinfo.json |
|  | progress | Get simple update progress. |
| Examples: | java -jar GbtUtility-${project.version}.jar [options] redfish updateservice progress |
| by nodelist: | java -jar GbtUtility-${project.version}.jar redfish updateservice progress |
| by single host | java -jar GbtUtility-${project.version}.jar -H 10.1.27.79 -U admin -P password -RU admin -RP password redfish updateservice progress |
| by scan IP | java -jar GbtUtility-${project.version}.jar -S rmcp,10.2.1.1,10.2.1.100 -U admin -P password -RU admin -RP password redfish updateservice progress |