



SMCIPMITool

User Guide

Release 1.0c

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1 Introduction

1.1 Purpose

IPMI (Intelligent Platform Management Interface) is a standard to allow a user to interface with a computer system to monitor the health of and manage the system.

The SMCIPMITool is a Supermicro utility that allows a user to interface with SuperBlade systems and IPMI devices via a CLI (Command Line Interface).

1.2 Third Party Software

1.2.1 JLine

SMCIPMITool uses JLine for command history and tab-completion. JLine is a Java library used to handle console input and is similar in functionality to BSD editline and GNU readline. People familiar with the readline/editline capabilities for modern shells (such as bash and tcsh) will find most of the command editing features of JLine to be familiar.

Please refer to <http://jline.sourceforge.net/index.html> for more information.

1.3 Document Conventions

- The syntax of the CLI command is given in **Courier New 11 bold**.
- Elements in (< >) indicate the field required as input along with a CLI command, for example **< integer (100-1000)>**.
- Elements in square brackets ([]) indicate optional fields for a command.
- Both “ * “ and “ , ” may be used to specify the numbers for the blade/gigabit/power/ib index(es) commands. For example:

```
CMM> blade 1,2,3 status
CMM> gigabit * status
```

2 Usage and Mode

Two kinds of user modes are provided when you start the SMCIMPITool: Command Line Mode and Shell Mode. Enter the OS console first before you select the mode.

2.1 Command Line Mode

In this mode, one command is entered and executed at a time. After the commands are executed, the SMCIPMITool is exited out. Usually this mode is received for executing simple commands or batch script.

Usage:

```
[java]

java -jar SMCIPMITool.jar <IP> <username> <password> [commands ... ]

[Windows]

SMCIPMITool.exe <IP> <username> <password> [commands ... ]

[Linux]

SMCIPMITool <IP> <username> <password> [commands ... ]
```

2.2 Shell Mode

In this mode, you can run multiple commands on a managed server without exiting the SMCIPMITool, which allows you to have better management of group servers. The related information in the prompt is provided for your reference. When the IPMI devices send the SNMP, you will receive the trap information as well.

Usage:

```
[java]

java -jar SMCIPMITool.jar <IP> <username> <password> shell

[Windows]

SMCIPMITool.exe <IP> <username> <password> shell

[Linux]

SMCIPMITool <IP> <username> <password> shell
```

Example Output:

```
SMC IPMI Tool V2.1.2 (Build 120320) - Super Micro Computer, Inc.
Press Ctrl+D or "exit" to exit
Press "?" or "help" for help
Press TAB for command completion
Press UP and DOWN key for command history
Trap Receiver Started
```

```
Managed hosts loaded.
Found hosts loaded.
192.168.23.100 X9SCD (S0/G0,13w) 13:55 SIM(WA)>
```

2.2.1 Keyboard Shortcuts

In the Shell Mode, hot keys allow you to have an ease of use.

Keys	Action
Up Arrow /Down Arrow	Displays the previously executed command
Ctrl + A	Moves the cursor to the previous command line
Ctrl + D	Exits from the SMCIPMITool prompt
Backspace/ Ctrl + H	Removes a single character
TAB	Completes a command without typing the full word
Left Arrow /Right Arrow	Traverses the current line

2.2.2 prompt

Use this command to configure the current status of managed system in prompt. The configuration will be permanently stored and recalled at the next startup.

Usage: `prompt <type> <on|off>`

Example Output:

```
username <on|off> : show/hide username
ip <on|off>       : show/hide IP address
mb <on|off>       : show/hide Motherboard product Model
acpi <on|off>     : show/hide ACPI status
power <on|off>    : show/hide power watts
fwver <on|off>    : show/hide BMC firmware ver
time <on|off>     : show/hide time
all <on|off>      : show/hide all information
* The change will be stored to config file
```

When you enter the Shell Mode after this, you will see the default prompt listings as follows:

```
ADMIN@192.168.23.92 X9DRW-6F (S0/G0,76w,v00.10) 14:13 SIM(X9)>
(A)      (B)      (C)      (D) (E)   (F)      (G)   (H)

(A) Username
(B) IP address
(C) Motherboard
(D) ACPI status
(E) Power consumption
(F) IPMI firmware version
(G) Current time
(H) IPMI firmware type
```

* If the information is not shown even set the item on,
That means SMCIPMITool cannot get correct data.

The prompt may appear differently depending on the type of firmware as follows:

Prompt in SMCIPMITool shell mode	IPMI Firmware Type
CMM>	Peppercon Firmware (KIRA) for Blade CMM
SIM(W)>	AMI Firmware (WPCM450)
SIM(WA)>	ATEN Firmware (WPCM450)
SIMBL(W)>	AMI Firmware (WPCM450) for Blade SIMBL
SIMBL>	Peppercon Firmware (KIRA) for Blade SIMBL
SIM-IPMI>	Peppercon Firmware (KIRA) without KVM
SIM-KVM-IPMI>	Peppercon Firmware (KIRA) with KVM
SUPERO-IPMI>	OSA (Renesas 2167) Firmware
SIM(X9)>	AMI Firmware (SH7757) for X9 MBs
IPMI>	Others

2.2.3 ch

Specify an IP address and use this command to change the current managed server. The servers that have been accessed are automatically memorized. Next time when you start the SMCIPMITool and enter the Shell Mode, the servers will be recalled in the prompt. You can use the keys "<" or ">" to switch between the servers. Note this command is ONLY available when you are in the Shell Mode.

Usage: **ch**

Example Output:

```
...
Current managed system(s):
Index | IP
-----|-----
  1   | ADMIN@192.168.23.92
  2   | ADMIN@192.168.23.93
  3   | ADMIN@192.168.23.95
```

2.2.4 hostrun

This is an IPMI command allowing you manage a group of servers. Two ways of running this command are as follows.

2.2.4.1 hostrun found

Run this command on all of the servers found by the `find` command. For details on the `find` command, please see [3.18 find](#).

Usage: `hostrun found <IPMI command>`

2.2.4.2 hostrun curr

Run this command on all of the servers you manage with the `ch` command. For details on the `ch` command, please see [2.2.3 ch](#).

Usage: `hostrun curr <IPMI command>`

2.2.5 search

The search function is built in all commands. The following three examples illustrate how this function works with the commands.

Usage: `SIM(X9)> <Command> | <Key for search>`

Example Output 1:

Search "FAN" from sensor list.

```
SIM(X9)>ipmi sr | FAN
      | (6) FAN1      |      N/A | 600 RPM | 12550 RPM |
OK    | (7) FAN2      | 1550 RPM | 600 RPM | 12550 RPM |
      | (8) FAN3      |      N/A | 600 RPM | 12550 RPM |
      | (9) FAN4      |      N/A | 600 RPM | 12550 RPM |
      | (10) FANA     |      N/A | 600 RPM | 12550 RPM |
      | (11) FANB     |      N/A | 600 RPM | 12550 RPM |
```

3 Commands

This section lists the commands available with SMCIPMITool. You must follow the usage protocol as described in the previous section.

Command(s):

system	SuperBlade system status overview
failure	SuperBlade system failure report
blade	SuperBlade blade management (2)
gigabit	SuperBlade gigabit switch management (2)
power	SuperBlade power supply management (2)
ib	SuperBlade infiniband management (2)
cmm	SuperBlade CMM management (2)
listtemp	SuperBlade system temperatures
allsel <filename>	SuperBlade all Blade SEL to CSV (OEM)
burst	SuperBlade power burst control (8)
ipmi	IPMI device management (21)
sel	IPMI system event log (4)
user	IPMI user management (6)
nm	Node Management V1.5 (16)
nm20	Node Management V2.0 (X9 MBs) (35)
dcmi	DCMI Management (2)
bios	BIOS update for X9 motherboards (8)
pminfo [<busId> <SlaAddr>]	Power supply PMBus health
psfruinfo [<busId> <SlaAddr>]	Power supply FRU health
ver	SMCIPMITool version
ch	Change managed device in shell mode
list [keyword]	List all or find available commands
exec <filename> [loop] [delay]	Execute commands from file
find [<Start> <End> <netMask>]	Find IPMI device from local or IP range
found	found IPMI devices (6)
host	Host management (6)
hostrun <host group> <command>	Run a command on host or group
mg	Manage group command (8)
trap	IPMI SNMP Trap receiver management (7)
sc	Execute DOS/Linux shell command
ukvm	KVM launcher (CMM,SIM,SIM(W),SIM(WA),SIM(X9))
kvm	SIM KVM console (graphic mode)
kvmw	SIM(W) KVM console (graphic mode)
kvmwa	SIM(WA) KVM console (graphic mode)
kvmwx9	SIM(X9) KVM console (graphic mode)
dr	SIM Virtual Media Drive Redirection
vm	SIM Virtual Media Management (4)
vmw	SIM(W) Virtual Media
vmwa	SIM(WA) Virtual Media
prompt <type> <on off>	Config information displayed on prompt
tagLoc	Tag for Location (16)
sol	SOL Commands
hdd	HDD status (6)
bbp	Battery Backup Power Management (3)

3.1 system

The system command displays the system information. In a blade system, this command will also list the modules present (CMM modules, Gb switches, power supplies, etc.).

Usage: **system**

Example Output:

Blade Module (20/20)

Blade	Power	KVM	UID	Error	BMC	Watt	MB
----	-----	---	---	-----	---	----	--
Blade 1	Off	Selected			Yes	350W	B8DTT
Blade 2	Off				Yes	400W	B8DTT
Blade 3	On				Yes	350W	B8DTT
Blade 4	On				Yes	350W	B8DTT
Blade 5	On				Yes	350W	B8DTT
Blade 6	On				Yes	350W	B8DTT
Blade 7	On				Yes	350W	B8DTT
Blade 8	On				Yes	350W	B8DTT
Blade 9	On				Yes	350W	B8DTT
Blade 10	On				Yes	350W	B8DTT
Blade 11	Off				Yes	400W	B8DTT
Blade 12	Off				Yes	400W	B8DTT
Blade 13	On				Yes	350W	B8DTT
Blade 14	On				Yes	350W	B8DTT
Blade 15	On				Yes	350W	B8DTT
Blade 16	On				Yes	350W	B8DTT
Blade 17	On				Yes	350W	B8DTT
Blade 18	On				Yes	350W	B8DTT
Blade 19	On				Yes	350W	B8DTT
Blade 20	On				Yes	350W	B8DTT

Gigabit Switch Module (1/2)

GBSW	Power	Error	Init	Switch	2.5V	1.25V	Type
----	-----	-----	----	-----	----	-----	-----
GBSW 1	On		Not	61C/142F	2.48V	1.192V	L3 Switch

Power Supply Module (4/4)

PS	Power	Fan 1	Fan 2	Temp.	Watts	DC	AC	F/W	FRU
--	-----	-----	-----	-----	-----	--	--	---	---
PS 1	On	5152	5152	56C/133F	2000	N/A	N/A	2.6	01
PS 2	On	5381	5381	54C/129F	2000	N/A	N/A	2.6	01
PS 3	On	5267	5152	57C/135F	2000	N/A	N/A	2.6	01
PS 4	On	7328	7099	54C/129F	2000	N/A	N/A	2.6	01

IBQDR Module (1/2)

IBQDR	Power	Temp. Switch	Temp. Board	3.3V	1.25V
-----	-----	-----	-----	----	-----
IBQDR 1	On	57C/135F	56C/133F	3.24V	1.18V

CMM Module(1/2)

CMM	M/S	Status
---	---	-----
CMM 1	Master	OK

CMM 1 is being managed now

3.2 failure

The failure command brings up a failure report, which lists all failure messages from the system.

Usage: **failure**

3.3 blade

The blade command will bring up the following subcommands.

3.3.1 blade status

This command will display the status of all the blade units in the system.

Usage: **blade status**

Example Output:

Blade Module (20/20)

Blade	Power	KVM	UID	Error	BMC	Watt	MB
-----	-----	---	---	-----	---	----	--
Blade 1	Off	Selected			Yes	350W	B8DTT
Blade 2	Off				Yes	400W	B8DTT
Blade 3	On				Yes	350W	B8DTT
Blade 4	On				Yes	350W	B8DTT
Blade 5	On				Yes	350W	B8DTT
Blade 6	On				Yes	350W	B8DTT
Blade 7	On				Yes	350W	B8DTT
Blade 8	On				Yes	350W	B8DTT
Blade 9	On				Yes	350W	B8DTT
Blade 10	On				Yes	350W	B8DTT
Blade 11	Off				Yes	400W	B8DTT
Blade 12	Off				Yes	400W	B8DTT
Blade 13	On				Yes	350W	B8DTT
Blade 14	On				Yes	350W	B8DTT
Blade 15	On				Yes	350W	B8DTT
Blade 16	On				Yes	350W	B8DTT
Blade 17	On				Yes	350W	B8DTT
Blade 18	On				Yes	350W	B8DTT
Blade 19	On				Yes	350W	B8DTT
Blade 20	On				Yes	350W	B8DTT

3.3.2 blade index(es)

This command is used to check the individual blades in the system. The following subcommands may be used for a specific blade.

3.3.2.1 status

Used to check the status of the individual blade specified.

Usage: **blade <blade number> status**

Example Output:

```
[ 1]:
Blade   | Power | KVM   | UID | Error | BMC | Watt | MB
----- | ----- | --- | --- | ----- | --- | ---- | --
Blade 1 | Off   | Selected |    |      | Yes | 350W | B8DTT
[ 2]:
Blade   | Power | KVM   | UID | Error | BMC | Watt | MB
----- | ----- | --- | --- | ----- | --- | ---- | --
Blade 2 | Off   |      |    |      | Yes | 400W | B8DTT
```

3.3.2.2 power

Used to access power control for the individual blade specified.

Usage: **blade <blade number> power [up|down|softshutdown|reset]**

Example Output:

```
[ 1]:
Power: Off
Available commands: up, down, softshutdown, reset
[ 2]:
Power: Off
Available commands: up, down, softshutdown, reset
```

3.3.2.3 kvm

Requests a kvm switch for the individual blade specified.

Usage: **blade <blade number> kvm**

3.3.2.4 uid

Used to turn a UID LED on or off as specified on an individual blade.

Usage: **blade <blade number> uid <on/off>**

3.3.2.5 sensor

Used to get sensor readings from the individual blade specified.

Usage: **blade <blade number> sensor**

Example Output:

Status	Sensor	Reading	Low Limit	High Limit
-----	-----	-----	-----	-----
OK	CPU1 Temp	1C/ 34F	N/A	80C/176F
OK	CPU2 Temp	1C/ 34F	N/A	80C/176F
OK	System Temp	64C/147F	N/A	80C/176F
OK	CPU1 Vcore	0.95 V	0.6 V	1.38 V
OK	CPU2 Vcore	0.96 V	0.6 V	1.38 V
OK	CPU1 DIMM	1.53 V	1.2 V	1.65 V

OK	CPU2 DIMM	1.53 V	1.2 V	1.65 V
OK	1.5V	1.52 V	1.34 V	1.65 V
OK	3.3V	3.16 V	2.96 V	3.63 V
OK	3.3VSB	3.36 V	2.96 V	3.63 V
OK	5V	5.06 V	4.49 V	5.5 V
OK	12V	12.19 V	10.75 V	13.25 V
OK	VBAT	3.36 V	2.96 V	3.63 V

3.3.2.6 *bmc*

This command will bring up the following subcommands related to the BMC of an individual blade.

3.3.2.6.1 *ip*

Used to get or set the IP address of a blade's BMC.

Usage (to get): `blade <blade number> bmc ip`

Usage (to set): `blade <blade number> bmc ip <IP>`

3.3.2.6.2 *mac*

Used to get or set the mac address of a blade's BMC.

Usage (to get): `blade <blade number> bmc mac`

Usage (to set): `blade <blade number> bmc mac <mac_address>`

3.3.2.6.3 *gateway*

Used to get or set the gateway of a blade's BMC.

Usage (to get): `blade <blade number> bmc gateway`

Usage (to set): `blade <blade number> bmc gateway <gateway IP>`

3.3.2.6.4 *netmask*

Used to get or set the netmask of a blade's BMC.

Usage (to get): `blade <blade number> bmc netmask`

Usage (to set): `blade <blade number> bmc netmask <netmask>`

3.3.2.6.5 *dhcp*

Used to enable or disable the DHCP (Dynamic Host Configuration Protocol) of a blade.

Usage: `blade <blade number> bmc dhcp [enable|disable]`

3.3.2.6.6 *vlan*

Used to display or enable or disable an individual blade's VLAN (Virtual LAN).

Usage: `blade <blade number> bmc vlan [<enable|disable> >tag>]`

3.3.2.6.7 ipmb

Used to send a raw IPMI command to an individual blade.

Usage: **blade** <blade number> **bmc ipmb** <netFn> <cmd> [data]

3.3.2.7 config

Used to get the configuration of the individual blade specified.

Usage: **blade** <blade number> **config**

Example Output:

```

MB ID           = BD
Pwr Consumption = 350W
CPUs            = 2
CPU Type        = undefined
CPU Speed       = 2.90Ghz
DIMMs           = 2
Memory Size     = 8192MB
Memory Speed    = 1066Mhz
LANs            = 2
LAN 1 MAC       = 00:30:48:F7:65:CC
LAN 2 MAC       = 00:30:48:F7:65:CD
MB SN           = ??????????????????

```

3.4 gigabit

Entering the gigabit command will bring up the following subcommands.

3.4.1 gigabit status

This command will display the status of all the Gb switch units in the system.

Usage: **gigabit status**

Example Output:

```

Gigabit Switch Module (1/2)
-----
GBSW   | Power | Error | Init |   Switch   |   2.5V   |   1.25V   | Type
-----|-----|-----|-----|-----|-----|-----|-----
GBSW 1 | On    |       | Not  | 61C/142F  | 2.496V   | 1.192V   | L3 Switch

```

3.4.2 gigabit index(es)

This command brings up the following commands related to an individual Gb switch in the system as specified.

3.4.2.1 status

Used to display the status of the gigabit switch specified.

Usage: **gigabit** <gigabit number> **status**

Example Output:

GBSW	Power	Error	Init	Switch	2.5V	1.25V	Type
----	-----	-----	----	-----	-----	-----	-----
GBSW 1	On		Not	61C/142F	2.48V	1.192V	L3 Switch

3.4.2.2 power

Used to access power control for the gigabit switch specified.

Usage: **gigabit <gigabit number> power <on|off|reset>**

3.4.2.3 wss

Used to access WSS (WebSuperSmart) web configuration control for the gigabit switch specified.

3.4.2.3.1 ip

Used to get or set the IP address of a gigabit switch.

Usage: **gigabit <gigabit number> wss ip [IP]**

3.4.2.3.2 netmask

Used to get or set the netmask address of a gigabit switch.

Usage: **gigabit <gigabit number> wss netmask [netmask]**

3.4.2.3.3 gateway

Used to get or set the gateway address of a gigabit switch.

Usage: **gigabit <gigabit number> wss gateway [gateway]**

3.4.2.3.4 datetime

Used to get or set the date and time settings for a gigabit switch.

Usage: **gigabit <gigabit number> wss datetime [datetime]**

Example Output:

12/29/2010 02:56:02

3.4.2.3.5 username

Used to get or set the username of WSS web for a gigabit switch.

Usage: **gigabit <gigabit number> wss username [username]**

3.4.2.3.6 password

Used to get or set the password of WSS web for a gigabit switch.

Usage: **gigabit <gigabit number> wss password [password]**

3.4.2.4 *ipmode*

Used to get or set the IP mode of the gigabit switch specified.

Usage (to get): **gigabit <gigabit number> ipmode**

Usage (to set): **gigabit <gigabit number> ipmode <mode>**

3.4.2.5 *boot*

Used to get or set the boot image of the gigabit switch specified.

Usage: **gigabit <gigabit number> boot [image number]**

3.4.2.6 *restart*

Used to soft restart the gigabit switch specified.

Usage: **gigabit <gigabit number> restart**

3.4.2.7 *fd*

Used to reset to factory default for the gigabit switch specified.

Usage: **gigabit <gigabit number> fd**

3.5 power

Entering the power command will bring up the following subcommands.

3.5.1 power status

This command will display the status of all the power supply units in the blade system.

Usage: **power status**

Example Output:

Power Supply Module (4/4)

PS	Power	Fan 1	Fan 2	Temp.	Watts	DC	AC	F/W	FRU
--	-----	-----	-----	-----	-----	--	--	---	---
PS 1	On	5152	5152	57C/135F	2000	N/A	N/A	2.6	01
PS 2	On	5381	5381	54C/129F	2000	N/A	N/A	2.6	01
PS 3	On	5152	5152	58C/136F	2000	N/A	N/A	2.6	01
PS 4	On	7328	7213	54C/129F	2000	N/A	N/A	2.6	01

3.5.2 power index(es)

This command is used to check the individual power supplies in the blade system and brings up the following commands:

3.5.2.1 *status*

Used to display the status of the power supply specified.

Usage: **power** <power number> **status**

Example Output:

PS	Power	Fan 1	Fan 2	Temp.	Watts	DC	AC	F/W	FRU
--	-----	-----	-----	-----	-----	--	--	---	---
PS 1	On	5152	5152	56C/133F	2000	N/A	N/A	2.6	01

3.5.2.2 power

Used to access power control for the power supply specified.

Usage: **power** <power number> <on|off>

3.5.2.3 fan

Used to access fan control for the power supply specified.

Usage: **power** <power number> **fan** <1|2|3|4|auto>

3.6 ib

Entering the ib command will bring up the following subcommands.

3.6.1 ib status

This command will display the status of all the InfiniBand switches in the system.

Usage: **ib status**

Example Output:

IBQDR Module (1/2)						

IBQDR	Power	Temp. Switch	Temp. Board	3.3V	1.25V	
-----	-----	-----	-----	----	-----	
IBQDR 1	On	57C/135F	56C/133F	3.24V	1.18V	

3.6.2 ib index(es)

This command is used to check the individual InfiniBand switches in the system and will bring up the following subcommands:

3.6.2.1 status

Used to display the status of the InfiniBand switch specified.

Usage: **ib** <ib number> **status**

Example Output:

IB	Power	Init	VVDD	3.3V Aux	1.2V	1.8V	3.3V	Temp.
--	-----	----	----	-----	----	----	----	-----
IB 1	Off	OK	1.92V	2.85V	0.78V	1.48V	2.85V	0C/32F

3.6.2.2 power

Used to access power control for the InfiniBand switch specified.

Usage: **ib <ib number> power <on|off|reset>**

3.7 cmm

Entering the cmm command will bring up the following subcommands.

3.7.1 cmm status

This command will display the status of all the CMM in the system.

Usage: **cmm status**

Example Output:

```
CMM Module(1/2)
-----
CMM      | M/S      | Status
---      | ---      | -----
CMM 1    | Master    | OK

CMM 1 is being managed now

CMM IP address:
-----
CMM 1 IP: 172.31.100.235
```

3.7.2 cmm index

This command is used to check the individual CMM in the system and will bring up the following subcommands:

3.7.2.1 status

Used to display the status of the CMM specified.

Usage: **cmm <cmm number> status**

Example Output:

```
CMM      | M/S      | Status
---      | ---      | -----
CMM 1    | Master    | OK

CMM 1 is being managed now
```

3.7.2.2 dtime

Used to get or set CMM date and time.

Usage: **cmm <cmm number> dtime [datetime]**

Example Output:

```
12/29/2010 02:56:02
(Data time format for setting: "MM/dd/yyyy HH:mm:ss")
```

3.7.2.3 ntp

Used to synch the time with the NTP servers.

Usage: **cmm <cmm number> ntp <UTC offset> <NTP1> [NTP2]**

3.7.2.4 reset

Used to reset the CMM specified.

Usage: **cmm <cmm number> reset**

3.7.2.5 flash

Used to flash CMM firmware to the CMM specified with the filename of the flash upgrade noted.

Usage: **cmm <cmm number> flash <filename>**

3.7.2.6 ver

Used to display the firmware version in the CMM specified.

Usage: **cmm ver**

Example Output:

```
Version:2.2.64 build 5420
```

3.7.2.7 ip

Used to get or set the IP address of the CMM specified.

Usage: **cmm <cmm number> ip [IP address]**

IP address format: **###.###.###.###**

3.7.2.8 mac

Used to get or set the MAC address of the CMM specified.

Usage: **cmm <cmm number> mac [mac address]**

MAC address format: **###.###.###.###**

3.7.2.9 gateway

Used to get or set the Gateway address of the CMM specified.

Usage: **cmm <cmm number> gateway [gateway address]**

Gateway address format: **###.###.###.###**

3.7.2.10 netmask

Used to get or set the Netmask IP address of the CMM specified.

Usage: `cmm <cmm number> netmask [netmask address]`

Netmask address format: `###.###.###.###`

3.7.2.11 syncfg

Used to sync the configuration to the slave CMM specified.

3.7.2.12 opmode

Used to get or set the operational mode for the CMM specified.

Usage: `cmm <cmm number> opmode [mode]`

Mode Choices: 0 = Enterprise 1 = Office

3.7.2.13 dhcp

Used to enable or disable the DHCP (Dynamic Host Configuration Protocol) of the CMM.

Usage: `cmm <cmm number> dhcp [enable|disable]`

3.8 listtemp

Entering the listtemp command will display the temperatures of all the modules in the blade system.

Usage: `listtemp`

Example Output:

Status	Module	Sensor	Reading	High Limit
-----	-----	-----	-----	-----
OK	Blade 3	CPU1 Temp	Low	N/A
OK	Blade 3	CPU2 Temp	Low	N/A
OK	Blade 3	System Temp	56C/133F	80C/176F
OK	Blade 4	CPU1 Temp	Low	N/A
OK	Blade 4	CPU2 Temp	Low	N/A
OK	Blade 4	System Temp	57C/135F	80C/176F
OK	Blade 5	CPU1 Temp	Low	N/A
OK	Blade 5	CPU2 Temp	Low	N/A
OK	Blade 5	System Temp	63C/145F	80C/176F
OK	Blade 6	CPU1 Temp	Low	N/A
OK	Blade 6	CPU2 Temp	Low	N/A
OK	Blade 6	System Temp	64C/147F	80C/176F
OK	Blade 7	CPU1 Temp	Medium	N/A
OK	Blade 7	CPU2 Temp	Low	N/A
OK	Blade 7	System Temp	62C/144F	80C/176F
OK	Blade 8	CPU1 Temp	Low	N/A
OK	Blade 8	CPU2 Temp	Low	N/A
OK	Blade 8	System Temp	63C/145F	80C/176F

OK	Blade 9	CPU1 Temp	Medium	N/A
OK	Blade 9	CPU2 Temp	Low	N/A
OK	Blade 9	System Temp	62C/144F	80C/176F
	Blade 10	CPU1 Temp	N/A	N/A
OK	Blade 10	CPU2 Temp	Low	N/A
OK	Blade 10	System Temp	59C/138F	80C/176F
OK	Blade 13	CPU1 Temp	Low	N/A
OK	Blade 13	CPU2 Temp	Low	N/A
OK	Blade 13	System Temp	60C/140F	80C/176F
OK	Blade 14	CPU1 Temp	Low	N/A
OK	Blade 14	CPU2 Temp	Low	N/A
OK	Blade 14	System Temp	60C/140F	80C/176F
OK	Blade 15	CPU1 Temp	Medium	N/A
OK	Blade 15	CPU2 Temp	Low	N/A
OK	Blade 15	System Temp	63C/145F	80C/176F
OK	Blade 16	CPU1 Temp	Low	N/A
OK	Blade 16	CPU2 Temp	Low	N/A
OK	Blade 16	System Temp	61C/142F	80C/176F
OK	Blade 17	CPU1 Temp	Low	N/A
OK	Blade 17	CPU2 Temp	Low	N/A
OK	Blade 17	System Temp	63C/145F	80C/176F
OK	Blade 18	CPU1 Temp	Medium	N/A
OK	Blade 18	CPU2 Temp	Medium	N/A
OK	Blade 18	System Temp	65C/149F	80C/176F
OK	Blade 19	CPU1 Temp	Low	N/A
OK	Blade 19	CPU2 Temp	Medium	N/A
OK	Blade 19	System Temp	62C/144F	80C/176F
	Blade 20	CPU1 Temp	N/A	N/A
OK	Blade 20	CPU2 Temp	Low	N/A
OK	Blade 20	System Temp	62C/144F	80C/176F
OK	Power 1	Temp.	56C/133F	85C/185F
OK	Power 2	Temp.	54C/129F	85C/185F
OK	Power 3	Temp.	57C/135F	85C/185F
OK	Power 4	Temp.	54C/129F	85C/185F
OK	GBSW 1	Switch	61C/142F	80C/176F
OK	InfiniBand 1	Temp.	0C/ 32F	80C/176F

3.9 sel

Entering the sel command will bring up the following subcommands for the system event log.

3.9.1 info

This command gives the information on the system event log.

Usage: **sel info**

Example Output:

```
Total Entries:      2
SEL Version:       1.5
Free Space:       9180bytes
Recent Entry Added: 12/20/2010 22:37:33
Recent Entry Erased: Pre-Init 00:00:00
```

3.9.2 list

This command will display the list of entries to the system event log.

Usage: **sel list**

3.9.3 csv

This subcommand will save the system event log as a csv file with the name specified in the filename.

Usage: **sel csv <filename>**

3.9.4 clear

This command will clear the system event log.

Usage: **sel clear**

3.10 allsel

Entering the allsel command will save all blade system event logs as a csv file with the name specified in the filename.

Usage: **allsel <filename>**

3.11 burst

Entering the burst command will list the following subcommands to control power of blades.

3.11.1 allUp

Use this command to power burst up all blades.

Usage: **allUp**

3.11.2 allDown

Use this command to power burst down all blades.

Usage: **allDown**

3.11.3 allRest

Use this command to power burst reset all blades.

Usage: **allReset**

3.11.4 allSoftshutdown

Use this command to soft shut down all blades.

Usage: **allSoftshutdown**

3.11.5 up

Use this command to power burst up blades.

Usage: **up** <index(es)>

3.11.6 down

Use this command to power burst down blades.

Usage: **down** <index(es)>

3.11.7 reset

Use this command to power burst reset blades.

Usage: **reset** <index(es)>

3.11.8 softshutdown

Use this command to power burst soft shut down blades.

Usage: **softshutdown** <index(es)>

3.12 user

Entering the user command will list the following user management subcommands.

3.12.1 add

Use this command to enter the name of a new user.

Usage: **user add** <user ID> <user name> <password> <privilege>

3.12.2 list

Entering the list command will display the users.

Usage: **user list**

Example Output:

```
Maximum number of Users          : 10
Count of currently enabled Users : 2
User ID | User Name      | Privilege Level | Enable
```


-----		-----		-----		-----
2		ADMIN		Administrator		Yes

3.12.3 delete

Entering the delete command allows you to delete a user.

Usage: **user delete** <user ID>

3.12.4 level

Entering the level command allows you to update the level of a user.

Usage: **user level** <user ID> <privilege>

The following levels may be assigned:

- 4: Administrator level
- 3: Operator level
- 2: User level
- 1: Callback

3.12.5 test

Entering the test command allows you to test logging in as a specific user.

Usage: **user test** <user ID> <password>

3.12.6 setpwd

Entering the user setpwd command allows you to set the password.

Usage: **user setpwd** <user ID> <password>

3.13 vm

Entering the vm command will list the following virtual media management subcommands. Refer to [Appendix B](#) for more on VM commands.

3.13.1 status

Using the status command lists the status of the drives present in the system.

Usage: **vm status**

Example Output:

```
Drive 1
Device Status = CD-ROM image on Windows share set
Image Size = 522766336 (bytes)
Access Mode = Read-Only
```

```
Image source = //192.168.10.43/iso/cd1.iso
```

```
Drive 2
Device Status = CD-ROM image on Windows share set
Image Size = 522766336 (byte)
Access Mode = Read-Only
Image source = //192.168.10.43/iso/cd2.iso
```

3.13.2 stop

Using the stop command allows you to stop the specified drive.

Usage: **vm stop <drive ID>**

3.13.3 floppy

Using the floppy command allows you to upload a floppy image as virtual media.

Usage: **vm floppy <drive ID> <floppy_filename>**

3.13.4 iso

Using the iso command allows you to share virtual media via Windows.

Usage: **vm iso <drive ID> <host IP> <share name> <path to image>
[username] [password]**

Example:

```
CMM>vm iso 1 192.168.10.43 iso cd1.iso
done
```

3.14 ipmi

Entering the ipmi command will list the following ipmi device management subcommands.

3.14.1 sensor

Using the sensor command will display the sensor status and data.

Usage: **ipmi sensor**

Example Output:

```
Getting SDR data ...
Getting sensors ...
```

Status	(#)Sensor	Reading	Low Limit	High Limit
-----	-----	-----	-----	-----
OK	(7) CPU1 Temp	Low		
OK	(8) CPU2 Temp	Low		
OK	(9) System Temp	63C/145F	-5C/23F	75C/167F
OK	(10) CPU1 Vcore	0.92 V	0.82 V	1.35 V
OK	(11) CPU2 Vcore	0.88 V	0.82 V	1.35 V

OK	(12)	+5V	5.12 V	4.48 V	5.53 V
OK	(13)	+5VSB	5.12 V	4.48 V	5.53 V
OK	(14)	+12V	12.19 V	10.7 V	13.25 V
OK	(15)	-12V	-11.99 V	-12.58 V	-11.22 V
OK	(16)	+3.3V	3.26 V	2.92 V	3.64 V
OK	(17)	+3.3VSB	3.24 V	2.92 V	3.64 V
OK	(18)	VBAT	3.21 V	2.92 V	3.64 V
OK	(19)	Fan1	4320 RPM	675 RPM	34155 RPM
	(20)	Fan2	0 RPM	675 RPM	34155 RPM
OK	(21)	Fan3	4320 RPM	675 RPM	34155 RPM
OK	(22)	Fan4	4185 RPM	675 RPM	34155 RPM
	(23)	Fan5	0 RPM	675 RPM	34155 RPM
	(24)	Fan6	0 RPM	675 RPM	34155 RPM
	(25)	Fan7	0 RPM	675 RPM	34155 RPM
	(26)	Fan8	0 RPM	675 RPM	34155 RPM
OK	(27)	P1-DIMM1A Temp	47C/117F	-5C/23F	75C/167F
	(28)	P1-DIMM1B Temp	N/A	-5C/23F	75C/167F
OK	(29)	P1-DIMM2A Temp	48C/118F	-5C/23F	75C/167F
	(30)	P1-DIMM2B Temp	N/A	-5C/23F	75C/167F
OK	(31)	P1-DIMM3A Temp	46C/115F	-5C/23F	75C/167F
	(32)	P1-DIMM3B Temp	N/A	-5C/23F	75C/167F
OK	(33)	P2-DIMM1A Temp	38C/100F	-5C/23F	75C/167F
	(34)	P2-DIMM1B Temp	N/A	-5C/23F	75C/167F
OK	(35)	P2-DIMM2A Temp	37C/99F	-5C/23F	75C/167F
	(36)	P2-DIMM2B Temp	N/A	-5C/23F	75C/167F
OK	(37)	P2-DIMM3A Temp	37C/99F	-5C/23F	75C/167F
	(38)	P2-DIMM3B Temp	N/A	-5C/23F	75C/167F
OK	(39)	Intrusion	00 C0 00 00	N/A	N/A
OK	(40)	PS Status	00 C0 00 00	N/A	N/A

3.14.2 power

Using the power command will list the following power control options.

3.14.2.1 up

Use the power up command to power up a system.

Usage: `ipmi power up`

3.14.2.2 down

Use the power down command to power down a system.

Usage: `ipmi power down`

3.14.2.3 softshutdown

Use the softshutdown command to initiate a soft shutdown of a system.

Usage: `ipmi power softshutdown`

3.14.2.4 reset

Use the reset command to initiate a reset of a system. Using the PXE option forces the first boot device to be used as PXE in the next boot only.

Usage: `ipmi power reset [PXE]`

3.14.2.5 *cycle*

Use the cycle command to power cycle of a system.

Usage: `ipmi power cycle [interval]`

3.14.2.6 *diag*

Use the diag command to initiate a diagnostic interrupt of a system.

Usage: `ipmi power diag`

3.14.3 *acpi*

Using the acpi command will display the ACPI (Advanced Configuration and Power Interface) status.

Usage: `ipmi acpi`

3.14.4 *lan*

Using the lan command will list the following LAN (Local Area Network) management subcommands.

Usage: `ipmi lan`

Example Output:

<code>ip [ip]</code>	Get/Set IP. Format:###.###.###.###
<code>mac [mac]</code>	Get/Set MAC. Format:##:##:##:##:##:##
<code>gateway [gateway_IP]</code>	Get/Set gateway. Format:###.###.###.###
<code>netmask [netmask]</code>	Get/Set netmask. Format:###.###.###.###
<code>snmp [<seq> <ip> [mac]]</code>	Get/Set SNMP destination
<code>snmpcomm [community string]</code>	Get/Set SNMP community string
<code>arp [on off]</code>	On/Off Gratuitous ARP
<code>dhcp [enable disable]</code>	Enable/Disable DHCP
<code>vlan [<enable disable> <tag>]</code>	Display/Enable/Disable VLAN
<code>dns [<Pri._IP> <Sec._IP>]</code>	Get/Set DNS server (OEM)

3.14.4.1 *ip*

Use the ip command to get/set the specified ipmi address.

Usage: `ipmi lan ip [ip]`

Address format: `###.###.###.###`

3.14.4.2 *mac*

Use the ip command to get/set the specified MAC address.

Usage: `ipmi lan mac [mac]`

Address format: ###.###.###.###

3.14.4.3 gateway

Use the gateway command to get/set the specified Gateway address.

Usage: `ipmi lan gateway [gateway IP]`

Address format: ###.###.###.###

3.14.4.4 netmask

Use the netmask command to get/set the specified Netmask.

Usage: `ipmi lan netmask [netmask]`

Address format: ###.###.###.###

3.14.4.5 snmp

Use the snmp command to get/set the specified SNMP destination.

Usage: `ipmi lan snmp [<seq> <ip> [mac]]`

Example Output:

Seq	IP	MAC
---	--	---
1	0.0.0.0	00:00:00:00:00:00
2	192.168.12.150	00:00:00:00:00:00
3	0.0.0.0	00:00:00:00:00:00
4	0.0.0.0	00:00:00:00:00:00
5	0.0.0.0	00:00:00:00:00:00
6	0.0.0.0	00:00:00:00:00:00
7	0.0.0.0	00:00:00:00:00:00
8	0.0.0.0	00:00:00:00:00:00
9	0.0.0.0	00:00:00:00:00:00
10	0.0.0.0	00:00:00:00:00:00
11	0.0.0.0	00:00:00:00:00:00
12	0.0.0.0	00:00:00:00:00:00
13	0.0.0.0	00:00:00:00:00:00
14	0.0.0.0	00:00:00:00:00:00
15	0.0.0.0	00:00:00:00:00:00

3.14.4.6 snmpcomm

Use the snmpcomm command to get/set the SNMP community string.

Usage: `ipmi lan snmpcomm [community string]`

Example Output:

```
public
```

3.14.4.7 arp

Use the arp command to enable BMC-generated gratuitous ARPs.

Usage: **ipmi lan arp** [on|off]

3.14.4.8 dhcp

Use the dhcp command to enable or disable DHCP (Dynamic Host Configuration Protocol).

Usage: **ipmi lan dhcp** [enable|disable]

3.14.4.9 vlan

Use the vlan command to enable or disable virtual LAN (vlan).

Usage: **ipmi lan vlan** [<enable|disable> <tag>]

3.14.5 fru

Using the fru command will list the information on the FRU (Field Replaceable Unit).

Usage: **ipmi fru**

Example Output:

```
Getting FRU ...
Chassis Type                = undefined (00h)
Chassis Part Number         =
Chassis Serial Number       =
Board Manufacturer Name     = Super Micro
Board Product Name          = IPMI2.0
Board Serial Number         =
Board Part Number           = AOC-SIMCM-O-P
Board FRU File ID           =
Product Manufacturer Name   = Super Micro
Product Name                = IPMI2.0
Product PartModel Number    = SBM-CMM-001
Product Version             = 1.0
Product Serial Number       =
Product Asset Tag           =
Product FRU File ID        =
```

3.14.6 Fruw

Use this command to write FRU to update FRU field with abbreviation and given values.

Usage: **fruw <field> <value>**

Example Output:

```
192.168.23.157 X9SCD (S0/G0,6w,v01.39) 14:19 SIM(WA)>ipmi fruw BDT
"201210101200"
Board mfg. Date/Time (BDT)    = 2012/10/10 12:00:00 (30 A3 86)
Board Manufacturer Name (BM)  = Supermicro
Board Product Name (BPN)     =
Board Serial Number (BS)     =
Board Part Number (BP)       =
Board FRU File ID            =
```

```
Product Manufacturer Name (PM) =  
Product Name (PN) =  
Product PartModel Number (PPM) =  
Product Version (PV) =  
Product Serial Number (PS) =  
Product Asset Tag (PAT) =  
Product FRU File ID =
```

```
192.168.23.157 X9SCD (S0/G0,6w,v01.39) 14:20 SIM(WA)>ipmi fruw BS 123456789  
Board mfg. Date/Time (BDT) = 2012/10/10 12:00:00 (30 A3 86)  
Board Manufacturer Name (BM) = Supermicro  
Board Product Name (BPN) =  
Board Serial Number (BS) = 123456789  
Board Part Number (BP) =  
Board FRU File ID =  
Product Manufacturer Name (PM) =  
Product Name (PN) =  
Product PartModel Number (PPM) =  
Product Version (PV) =  
Product Serial Number (PS) =  
Product Asset Tag (PAT) =  
Product FRU File ID =
```

3.14.7 Frubackup

Use this command to back up FRU information as a file.

Usage: **frubackup** <filename>

3.14.8 Frurestore

Use this command to restore FRU information from a file.

Usage: **frurestore** <filename>

3.14.9 oem

Using the oem command will list the following subcommands.

3.14.9.1 *clrint*

Use the clrint command to clear the chassis intrusion detection switch.

Usage: **ipmi oem clrint**

3.14.9.2 *id*

Use the id command to display the motherboard ID (available for SIMxx IPMI only).

Usage: **ipmi oem id**

3.14.9.3 uid

Use the uid command to turn the UID LED on or off (if supported by the device).

Usage: `ipmi oem uid [on|off]`

3.14.9.4 backup

Use the backup command to backup the configuration file as the filename specified.

Usage: `ipmi oem backup <filename>`

3.14.9.5 restore

Use the restore command to restore the configuration from the filename specified.

Usage: `ipmi oem restore <filename> <option>`

3.14.9.6 lani

Use the lani command to interface with the IPMI LAN.

Usage: `ipmi oem lani [0|1|2]`

3.14.10 reset

Using the reset command will reset IPMI.

Usage: `ipmi reset`

3.14.11 ver

Using the ver command will display the following information relating to the IPMI version in use.

Usage: `ipmi ver`

Example Output:

```
Firmware Revision = 02.02
IPMI Version      = 2.0
Manufacturer ID   = C5 28 00
product ID        = 04 00 00
OEM Version       = 2.2.64 build 5420
OEM Tag           = Dec-15-2010-17-15-CMM
```

3.14.12 flash

Use the flash command to flash a new version of SIM IPMI firmware as specified by the filename.

Usage: `ipmi flash <filename>`

3.14.13 flashw

Use the flashw command to flash a new version of SIM(W) or SIMBL(W) IPMI firmware as specified by the filename.

Usage: **ipmi flashw <filename>**

3.14.14 flashr

Use the flashr command to flash a new version of Renesas (X9 and B9) IPMI firmware.

Usage: **ipmi flashr**

Example Output:

```
192.168.23.17 (S0/G0,55w) 16:08 SIM(X9)>ipmi flashr c:\17.ima
*****
WARNING!
Firmware upgrade must not be interrupted once it is started.
Once you get error after Upgrading, please use local KCS tool
for recovery.(DOS:RKCSFlsh.exe, Linux:RLin32Flsh or
Windows:RWin32Flsh.exe )
*****
Check firmware file... Done (ver:1.10.15)
Check BMC status... Done (ver:1.10.18)
Enter to Flash Mode
Uploading .....100%
Upgrading .....100%
Verifying .....100%
Resetting BMC
Done. (BMC needs 1 minute to restart)
Please reset system for board configuration
Total Elapse Time: 7 min 27 sec(s)
```

3.14.15 flashh

Use the flashh command to flash the SIM(WA) IPMI firmware (*.bin) specified by the filename.

Usage: **ipmi flashh <filename>**

Example Output:

```
192.168.23.157 (S0/G0,6w) 14:19 SIM(WA)>ipmi flashh c:\160.bin
*****
WARNING!
Firmware upgrade must not be interrupted once it is started.
Once you get error after Upgrading, please use local KCS tool
for recovery.(DOS:dupdate.exe, Linux:lupdate or
Windows:wupdate.exe )
*****
Check firmware file... Done (ver:01.60)
Check BMC status... Done (ver:01.60)
Uploading...Done
Updating.....100%
```

```
Resetting BMC
Done. (BMC needs 1 minute to restart)
Total Elapse Time: 2 min 30 sec(s)
```

3.14.16 raw

Use the raw command to send an IPMI raw command.

Usage: `ipmi raw <netFn> <cmd> [data]`

3.14.17 ipmb

Use the ipmb command to send an IPMI raw command.

Usage: `ipmi ipmb <ch> <addr> <netFn> <cmd> [data]`

3.14.18 ipmboem

Use the ipmboem command to send an IPMI raw command.

Usage: `ipmi ipmb <ch> <addr> <netFn> <cmd> [data]`

3.14.19 delsd

Use the delsd command to delete the SDR.

Usage: `ipmi delsd <SDR record ID>`

3.14.20 session info

Use this command to view the information of

Usage: `ipmi sessioninfo`

Example Output:

```
SessionHandler = 16h
Number of possible active sessions = 36
Number of currently active sessions = 6
User ID = 02h
Operating Privilege Level = 04h
Session protocol auxiliary data = 11h
IP Address of remote console = 00 00 00 00 (0.0.0.0)
Mac Address of remote console= 00 00 00 00 00 00 (00:00:00:00:00:00)
Port Number = 00 00 (0)
```

3.14.21 fan

Use this command to control the fan.

Usage: `ipmi fan`

Example Output:

```
Current Fan Speed Mode is [ Optimal Mode ]
```

```
Parameter for setting:
```

```
0:Standard
```

```
1:Full
```

```
2:Optimal
```

3.15 ver

Entering the ver command will list the version and build of the SMCIPMITool application being used.

Usage: **ver**

Example Output:

```
SMC IPMI Tool V1.7.9(Build 101124) - Super Micro Computer, Inc.
```

3.16 list

Entering the list command will display all available commands.

Usage: **list**

3.17 find

Entering the find command will search for and display all IPMI devices.

Usage: **find** [**<Start_IP>** **<End_IP>** **<NetMask>**]

Example Output:

```
Finding IPMI Devices ...
172.31.100.235      IPMI 2.0 (SuperBlade TwinBlade CMM)
172.31.100.242      IPMI 2.0 (SuperBlade CMM)
2 IPMI device(s) found. Use "found" to list found devices
```

3.18 found

Entering the found command will list or clear all found IPMI devices.

Usage: **found** [**clear**]

3.19 exec

Entering the exec command will execute the specified command from a file.

Usage: **exec** **<filename>** **<loop>** **<delay>** where

Loop = 0 is for an infinite loop

Delay is in seconds

3.20 host

Entering the host command will list the following host-related subcommands.

3.20.1 list

Use the list command will list the host group and host data.

Usage: **host list**

Example Output:

```
Host :
      Host                IP
      ----                --
      1.112                (192.168.1.112)
      1.119                (192.168.1.119)
      bl1                  (192.168.10.243)
      bl2                  (192.168.10.244)

Host Group:
      Group Name          Host
      -----
      1                   1.112
                        1.119
      bl                  bl1
                        bl2
```

3.20.2 reload

Using the reload command will reload the host data.

Usage: **host reload**

3.20.3 add

Use the add command to add a host.

Usage: **host add <host> <ip> [username] [password]**

3.20.4 remove

Use the remove command to remove a host.

Usage: **host remove <host>**

3.20.5 rename

Use the rename command to rename a host.

Usage: `host rename <old name> <new name>`

3.20.6 group

Entering the group command will list the following group-related subcommands.

3.20.6.1 add

Use the add command to add a host group.

Usage: `host group add <group> [host] ...`

3.20.6.2 remove

Use the remove command to remove a host group.

Usage: `host group remove <group>`

3.20.6.3 rename

Use the rename command to rename a host group.

Usage: `host group rename <old name> <new name>`

3.20.6.4 addhost

Use the addhost command to add host into an existing host group.

Usage: `host group addhost <group> <host> ...`

3.20.6.5 removehost

Use the removehost command to remove host from an existing host group.

Usage: `host group removehost <group> <host> ...`

3.21 hostrun

Enter the hostrun command to run a command on an entire host or group.

Usage: `hostrun <host|group> <command>`

Example Output:

```
CMM>hostrun bl ipmi power up
[b11:192.168.10.243]
Done

[b12:192.168.10.244]
Done
```

3.22 sc

Enter the sc command to execute a DOS or Linux shell command.

Usage: **sc** <command>

Example Output:

CMM>sc dir (execute dir command in Windows OS)

CMM>sc ls (execute ls command in Linux OS)

CMM>sc ping 192.168.10.123 (execute ping command)

3.23 pminfo

Entering the pminfo command will display information on the health of the PMBus.

Usage: **pminfo** [<bus ID> <slave address>]

Example Output:

```
192.168.23.80 X9DRW-3F (S0/G0,56w) 14:20 SIM(X9)>pminfo
[SlaveAddress = 78h] [Module 1]
Item                               | Value
----                               | ----
Status                             | [STATUS OK](01h)
AC Input Voltage                    | 109.5 V
AC Input Current                    | 0.51 A
DC 12V Output Voltage               | 12.18 V
DC 12V Output Current               | 3.5 A
Temperature 1                       | 38C/100F
Temperature 2                       | 35C/95F
Fan 1                               | 6688 RPM
Fan 2                               | 0 RPM
DC 12V Output Power                 | 42 W
AC Input Power                      | 55 W
PMBus Revision                      | 0xFFFF
PWS Serial Number                   | P5041CB02AW0093
PWS Module Number                   | PWS-504P-RR
PWS Revision                        |
```

3.24 psfruinfo

This command will display the FRU health information of power supply.

Usage: **psfruinfo**

Example Output:

```
[SlaveAddress = 70h] [Module 1]
Item                               | Value
----                               | ----
```

Status		On
Temperature		36C/97F
Fan 1		6641 RPM

3.25 bbp

Entering the bbp command will bring up the following subcommands for battery backup power management.

3.25.1 status

Use this command to display the status of backup battery power.

Usage: **status**

Example Output:

```
192.168.12.137 X8DTU (S0/G0,78w,v01.34) 16:06 SIM(WA)>bbp st
[SlaveAddress = 70h] [Module 1]
Item                                     | Value
----                                     | ----
Manufacturer                           | SUPERMICRO
Model Name                             | PWS-206B-1R
Serial Number                           | TEST1234567890A
Product Version                         | 1.2
Firmware version                        | 1.0
-----
Battery Voltage                         | 16.13 V
Battery Current                         | 0 mA
Battery Pack Temp                       | 31C/88F
Power Wattage                           | 200W
Cycle Count                             | 6
-----
Battery Power Status                    | Normal
Remaining Energy                        | 96%
Discharge Status                        | None
Discharge Setting                       | Auto (30 days)
Discharge Remaining Days                | 29 days
Battery Status                          | 0xC0E0
                                         | [FULLY CHARGED]
                                         | [TERMINATE CHARGE]
```

3.25.2 autoDischarge

Use this command to set the battery auto discharge by day.

Usage: **autoDischarge** <module> <day>

3.25.3 discharge

Use this command to manually discharge the battery.

Usage: **discharge** <module>

3.26 nm

This command is for Intel Dynamic Power Node Manager V1.5 and specifically used to test motherboards of Supermicro X8 series. Use this command to run tests.

3.26.1 detect

Use the detect command to detect if ME is present.

Usage: **nm detect**

Example Output:

```
This device supports Node Manager
```

3.26.2 ver

Use the ver command to display the node manager version.

Usage: **nm ver**

Example Output:

```
Node Manager Version = 1.5
Firmware Version     = 1.12
```

3.26.3 cap

Use the cap command to display the node manager capabilities.

Usage: **nm cap**

Example Output:

```
Max concurrent settings      = 10
Max Power limit value        = 32767 w
Min Power limit value        = 1 w
Max Correction Time settable  = 600000 ms
Min Correction Time settable  = 6000 ms
Max Statistics Reporting period = 3600 s
Min Statistics Reporting period = 1 s
Limiting type                 = CPU power limiting
Limiting based on             = Wall input power. PSU input power
```

3.26.4 status

Use the status command to display or enable or disable the node manager.

Usage: **nm status [enable:disable]**

Example Output:

```
Node Manager is enabled
```


3.26.5 stat

Use the status command to display power statistics (or by policy ID).

Usage: **nm stat [ID]**

Example Output:

```
Gloabal Power statistic
Current = 263 w
Minimum = 0 w
Maximum = 375 w
Average = 259 w
Time    = 12/27/2010 04:50:54
Reporting Period = 1 sec
Node Manager is enabled
Measurements in progress
```

3.26.6 resetStat

Use the resetStat command to reset power statistics (or by policy ID).

Usage: **nm resetStat [ID]**

3.26.7 pstate

Use the pstate command to get or set the P-state.

Usage: **nm pstate [value]**

Example Output:

```
Current P-State    = 7
Number of P-State = 8
```

3.26.8 tstate

Use the tstate command to get or set the T-state.

Usage: **nm tstate [value]**

Example Output:

```
Current T-State    = 0
Number of T-State = 8
```

3.26.9 ptstate

Use the ptstate command to display the P-state and T-state.

Usage: **nm ptstate**

Example Output:

```

P-State : High | _____#| Low      [7/8] (Current/Number of State)
T-State : High | #_____| Low      [0/8] (Current/Number of State)

```

3.26.10 alert

Use the alert command to get or set the destination for alerts. Node Manager will send the alert to the SNMP destination, which can be defined by the “ipmi lan snmp” command.

Usage: **nm alert [destination]**

Example:

```

SIM(WA)>ipmi lan snmp
Seq          IP          MAC
---          --          ---
  1          0.0.0.0      00:00:00:00:00:00
  2      192.168.12.150    00:00:00:00:00:00
  3          0.0.0.0      00:00:00:00:00:00
  4          0.0.0.0      00:00:00:00:00:00
  5          0.0.0.0      00:00:00:00:00:00
  6          0.0.0.0      00:00:00:00:00:00
  7          0.0.0.0      00:00:00:00:00:00
  8          0.0.0.0      00:00:00:00:00:00
  9          0.0.0.0      00:00:00:00:00:00
 10          0.0.0.0      00:00:00:00:00:00
 11          0.0.0.0      00:00:00:00:00:00
 12          0.0.0.0      00:00:00:00:00:00
 13          0.0.0.0      00:00:00:00:00:00
 14          0.0.0.0      00:00:00:00:00:00
 15          0.0.0.0      00:00:00:00:00:00
SIM(WA)>nm alert 2
Done
SIM(WA)>nm alert
Destination selector = 2

```

3.26.11 scanPolicy

Use the scanPolicy command to get or set the destination for alerts.

Usage: **nm scanPolicy [end]**

Example Output:

```

=====
Policy ID = 0, Power Limit = 32767 w
Policy state:
  Policy enabled
  Per Domain Node Manager policy control enabled
  Global Node Manager policy control enabled
Exception action:
=====
Policy ID = 2, Power Limit = 200 w
Policy state:

```

```
Policy enabled
Per Domain Node Manager policy control enabled
Global Node Manager policy control enabled
Exception action:
```

3.26.12 addPolicy

Use the addPolicy command to add a new policy.

Usage: **nm addPolicy** <ID> <limit> <t> <p>

Example Output:

```
SIM(WA)>nm addPolicy 15 150 60000 10
Done
```

3.26.13 delPolicy

Use the delPolicy command to delete a policy.

Usage: **nm delPolicy** <ID>

3.26.14 getPolicy

Use the getPolicy command to get a policy.

Usage: **nm getPolicy** <ID>

Example:

```
SIM(WA)>nm getPolicy 15
Power Limit = 150 w
Correction Time limit      = 60000 ms
Statistics Reporting Period = 10 s
Policy state:
  Policy enabled
  Per Domain Node Manager policy control enabled
  Global Node Manager policy control enabled
Policy Exception action state:
  Send alert
```

3.26.15 enablePolicy

Use the enablePolicy command to enable a policy.

Usage: **nm disablepolicy** <ID>

3.26.16 disablePolicy

Use the disablePolicy command to disable a policy.

Usage: **nm disablePolicy** <ID>

3.27 kvmwa

Entering the `kvmwa` command will open a KVM window for ATEN firmware.

Usage: `kvmwa`

3.28 ukvm

Entering the `ukvm` command will auto-detect the firmware and launch the correct KVM (keyboard/video/mouse) window console.

Usage: `ukvm`

3.29 vmwa

Entering the `vmwa` command will list the following `vmwa` subcommands (applies only to devices with ATEN firmware). Refer to [Appendix B](#) for more on VM commands.

Usage: `vmwa`

Note:

- * Supports 2 virtual devices (device 1 & device 2)

Device 1 will be Hard Disk,USB or Floppy

Device 2 will be CD,DVD or ISO file

- * List available devices before mount virtual media when plug in Removable device

3.29.1 dev1list

Use the `dev1list` command to list the available device for virtual device 1.

Usage: `vmwa dev1list`

3.29.2 dev1drv

Use the `dev1drv` command to mount the drive for virtual device 1.

Usage: `vmwa dev1drv <index>`

3.29.3 dev1stop

Use the `dev1stop` command to stop the virtual device 1.

Usage: `vmwa dev1stop`

3.29.4 dev2list

Use the dev2list command to list the available device for virtual device 2.

Usage: **vmwa dev2list**

3.29.5 dev2cd

Use the dev2cd command to mount the CD/DVD drive for virtual device 2.

Usage: **vmwa dev2cd <index>**

3.29.6 dev2iso

Use the dev2iso command to mount the ISO file for virtual device 2.

Usage: **vmwa dev2iso <filename>**

3.29.7 dev2stop

Use the dev2stop command to stop the virtual device 2.

Usage: **vmwa dev2stop**

3.29.8 allstatus

Use the allstatus command to show all VMWA status.

Usage: **vmwa allstatus**

3.29.9 status

Use the status command to show the status.

Usage: **vmwa status**

Example Output:

```
Device 1: None
Device 2: None
```

3.29.10 log

Use the log command to show the log.

Usage: **vmwa log**

3.30 dcmi

Entering the dcmi command will list the following DCMI management subcommands (applies only to devices that support DCMI management).

3.30.1 find

Use the find command to search for and display all DCMI devices.

Usage: **dcmi find** [<Start_IP> <End_IP> <NetMask>]

Example Output:

```
Finding DCMI Devices ...
 192.168.12.151      DCMI Ver:0.1
 192.168.12.152      DCMI Ver:0.1
2 DCMI device(s) found
```

3.30.2 cap

Use the cap command to list the DCMI capabilities information.

Usage: **dcmi cap**

Example Output:

```
DCMI Version = 0.1
Mandatory Platform capabilities
Temperature Monitor      :Compliant
Chassis Power            :Compliant
SEL logging              :Compliant
Identification Support   :Compliant

Optional Platform capabilities
Power Management         :Not Compliant

Manageability Access Capabilities
VLAN Capable             :Available
SOL Supported            :Available
OOB Primary LAN Channel Available :Available
OOB Secondary LAN Channel Available :Not presnt
OOB Serial TMODE Available :Not presnt
In-Band KCS Channel Available :Available

SEL Attributes
SEL automatic rollover enabled :Not presnt
Number of SEL entries          :0

Identification Attributes
Asset Tag Support             :Available
DHCP Host Name Support       :Not presnt
GUID Support                  :Available

Temperature Monitoring
Baseboard temperature        :At least 1
Processors temperature       :At least 1
Inlet temperature           :At least 1

Power Management Device Slave Address
```

7-bit I2C Slave Address of device on IPMB :10

Power Management Controller Channel Number

Channel Number :00

Device Revision :01

Manageability Access Attributes

Mandatory Primary LAN OOB Support(RMCP+ Support Only) :supported

Optional Secondary LAN OOB Support(RMCP+ Support Only):supported

Optional Serial OOB TMODE Capability :supported

3.31 dr

Entering the dr command will list the following drive-redirection subcommands (applies only to devices with Peppercon firmware). Refer to [Appendix B](#) for more on drive-redirection / VM commands

3.31.1 list

Use the list command to list available local drives.

Usage: **dr list**

Example Output:

```
C: (Hard Disk)
D: (Hard Disk)
E: (CD-ROM)
```

3.31.2 iso

Use the iso command to set the redirection for ISO file.

Usage: **dr iso <drive ID> <path to iso file>**

Example: **dr iso c:\cd.iso**

This will establish an ISO redirection with your cd.iso

Note: If your path includes a space, please place double quote at begin and end of <path to iso file>.

3.31.3 drv

Use the drv command to set the redirection for local drive.

Usage: **ddr drv <drive ID> <drive Letter> [write ? enable]**

Example 1: **dr drv 1 d**

This will establish a drive redirection with your local d drive.

The write support is disabled

Example 2: `dr drv 1 e enable`

This will establish a drive redirection with your local e drive.

The write support is enabled.

3.32 kvm

Entering the `kvm` command will open a KVM window for Peppercon firmware.

Usage: `kvm`

3.33 kvmw

Entering the `kvmw` command will open a KVM window for AMI firmware.

Usage: `kvmw`

3.33.1 kvmwx9

Entering the `kvmwx9` or `ukvm` will open a `kvm` window for AMI x9 firmware.

Usage: `kvmwx9` (or `ukvm`)

Example Output:

```
kvmwx9                                SIM(X9) KVM console (graphic mode)
```

3.34 vmw

Entering the `vmw` command will list the following `vmw` subcommands (applies only to devices with AMI firmware). Refer to [Appendix B](#) for more on VM commands.

Usage: `vmw`

3.34.1 vmw floppy

This command is used to select the floppy image as virtual media.

Usage: `vmw floppy <image file>`

3.34.2 vmw usbkey

This command is used to select the USB key as virtual media.

Usage: `vmw usbkey <drive letter>`

3.34.3 vmw iso

This command is used to select the ISO file as virtual media.

Usage: **vmw iso** <ISO file>

3.34.4 vmw cd

This command is used to select the CD/DVD drive as virtual media.

Usage: **vmw cd** <drive letter>

3.34.5 vmw stopFloppy

This command is used to stop the connected floppy.

Usage: **vmw stopFloppy**

3.34.6 vmw stopUsbkey

This command is used to stop the connected USB key.

Usage: **vmw stopUsbkey**

3.34.7 vmw stopISO

This command is used to stop the connected ISO.

Usage: **vmw stopISO**

3.34.8 vmw stopCD

This command is used to stop the connected CD/DVD drive.

Usage: **vmw stopCD**

3.34.9 vmw status

This command is used to view the Virtual Media status.

Usage: **vmw status**

3.35 sol

Entering the sol command will list the following SOL subcommands.

3.35.1 sol activate

Use the sol activate command to activate SOL directly in the current text mode. Press the <F12> key to exit.

In order to display the remote text console correctly, the support of ANSI/VT100 terminal control escape sequences is required for the computer terminal or terminal emulator running SMCIPMITool.

Usage: `sol activate`

3.35.2 sol deactivate

Use the `sol deactivate` command to stop SOL.

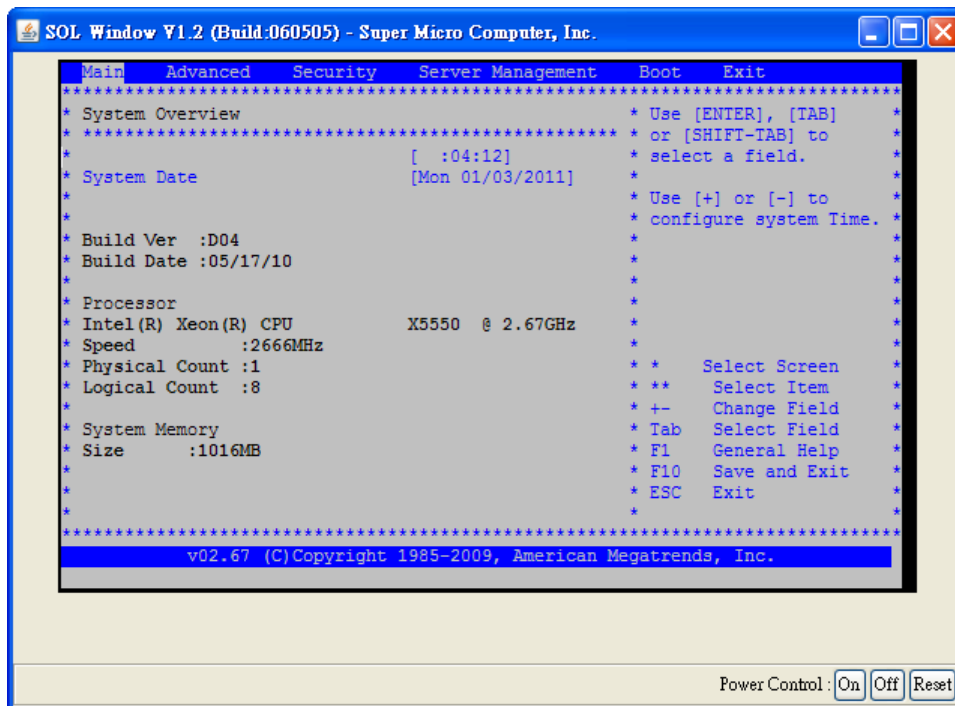
Usage: `sol deactivate`

3.35.3 sol window

Use the `sol window` command to open a SOL window GUI and activate SOL.

Usage: `sol window`

Example Output:



3.35.4 sol key

Use the `sol key` command to key map for Linux or Windows.

Usage: `sol key [linux|windows]`

3.35.5 bitrate

Use the `sol bitrate` command to configure the SOL transmission bit rate.

Usage: **sol bitrate** [9.6|19.2|38.4|57.6|115.2]

3.36 nm20

This command is for Intel Dynamic Power Node Manager V2.0 and specifically used for the testing of motherboards of Supermicro X9 series. Use this command to run tests.

Usage: **nm20**

Example Output:

nmSDR	Display NM SDR
selTime	Get SEL time
deviceId	Get ME Device ID
reset	Reboots ME
reset2Default	Force ME reset to Default
updateMode	Force ME to Update Mode
powerOff	Set ME power state off
selfTest	Get Self Test Results
mode	Get ME running Mode
listImagesInfo	List ME Images information
oemGetPower	OEM Power command for ME
oemGetTemp	OEM Temp. command for ME
globalEnable	Global Enable NM policy control
globalDisable	Global Disable NM policy control
domainEnable <domain ID>	per Domain Enable NM policies
domainDisable <domain ID>	per Domain Disable NM policies
policyEnable <domain ID> <policy ID>	per Policy Enable NM policy
policyDisable <domain ID> <policy ID>	per Policy Disable NM policy
addPowerPolicy <pID> <limit> <t> <p>	Add Power Policy
getPolicy <domain ID> <policy ID>	Get Policy
delPolicy <domain ID> <policy ID>	Delete Policy
scanPolicy	Scan all presented Policies
addPolicy <dID> <pID> <ptt> <agg> <a> <l> <t> <tl> <p>	Add Policy
statistics <mode> <domainID> <policy ID>	NM statistics
resetStatistics <mode> <domain ID> <policy ID>	Reset NM statistics
cap <domain ID> <Trigger Type>	NM Capabilities
ver	NM Version
alert [dest]	NM Alert
pstate [value]	Get/Set Max allowed CPU P-State
tstate [value]	Get/Set Max allowed CPU T-State
ptstate	Show CPU P-State and T-State
cpuCore [cores]	Get/Set max allowed logical processors
totalPower <domainID> [watts]	Get/Set Total Power Budget

3.36.1 nmSDR

Use this command to display NM SDR.

Usage: **nm 20 nmSDR**

Example Output:

Record ID = 1C 00

```
SDR Version           = 51h
Record Type           = C0h
Record Length         = 0Bh
OEM ID                = 57 01 00 h
Record Subtype        = 0Dh
SubType Version       = 01h
Slave Address         = 2Ch
Channel               = 00h
Health Event Sensor Number = 1Dh
Exception Event Sensor Number = 1Eh
Operational Capabilities Sensor Number = 1Fh
Alert Threshold Exceeded Sensor Number = 20h
```

3.36.2 selTime

Use this command to find out SEL time.

Usage: **nm20 selTime**

Example Output:

```
Device ID              = 50h (Intel Management Engine)
Firmware Version       = 2.1.5.73
IPMI Version           = 2.0
Manufacturer ID        = 57 01 00
product ID Minor Ver   = Romley platform
firmware implemented version = NM Revision v2.0
Image Flag = operational image 1
raw = 50 01 02 15 02 21 57 01 00 02 0B 02 07 30 01
```

3.36.3 deviceID

Use this command to get ME Device ID.

3.36.4 reset

Use this command to reboot ME.

3.36.5 reset2Default

Use this command to force ME to reset to default settings.

3.36.6 updateMode

Use this command to force ME to enter the Update Mode.

3.36.7 powerOff

Use this command to set ME to the power-off state.

3.36.8 selfTest

Use this command to get Self Test results.

3.36.9 mode

Use this command to get ME running Mode.

Usage: **nm20 mode**

Example Output:

```
ME is in NORMAL mode
```

3.36.10 listImagesInfo

Use this command to display the information of ME images.

Usage: **nm20 listImagesInfo**

Example Output:

```
Recovery Image:
Image Type = recovery image
raw  = 57 01 00 02 01 02 07 35 00

1st operational Image:
Image Type = operational image 1 (This Image is currently running)
raw  = 57 01 00 02 01 02 07 35 05

2nd operational Image:
Image Type = operational image 2
raw  = 57 01 00 02 01 02 07 35 02
```

3.36.11 oemGetPower

Use this command to get power.

Usage: **nm20 oemGetPower**

Example Output:

```
56 watts
```

3.36.12 oemGetTemp

Use this command to run temporary commands.

Usage: **nm20 oemGetTemp**

Example Output:

```
56 (c)
```

3.36.13 globalEnable

Use this command for Global Enable NM policy control.

3.36.14 globalDisable

Use this command for Global Disable NM policy control.

3.36.15 domainEnable

Use this command for per Domain Enable NM policies.

3.36.16 domainDisable

Use this command for per Domain Disable NM policies.

3.36.17 policyEnable

Use this command for per Policy Enable NM policy.

3.36.18 policyDisable

Use this command for per Policy Disable NM policy.

3.36.19 addPowerPolicy

Use this command to add power policy.

Usage: **nm20 addPowerPolicy**

3.36.20 getPolicy

Use this command to get policy.

3.36.21 delPolicy

Use this command to delete policy.

3.36.22 scanPolicy

Use this command to scan all presented policies.

Usage: **nm20 scanPolicy**

Example Output:

```
=====
Domain ID = 0 , Policy ID = 0
=====
Values:
Power Limit           = 32767 w
```

```
Correction Time limit      = 600000 ms
Statistics Reporting Period = 60 s
Policy Trigger Limit      = 0
Domain ID:
    Entire platform
Policy state:
    Policy(Enabled)  Domain(Enabled)  Global(Enabled)
Policy Trigger Type:
    No Policy Trigger
Aggressive CPU Power correction:
    Backward compatible with NMV1.5
Policy Exception action state:
    Send alert
raw = 57 01 00 70 10 01 FF 7F C0 27 09 00 00 00 3C 00

Total Policies = 1
```

3.36.23 addPolicy

Use this command to add policy.

Usage: **nm20 addPolicy**

Example Output:

3.36.24 statistics

Use this command to display statistics.

Usage: **nm20 statistics**

Example Output:

3.36.25 resetStatistics

Use this command to reset NM statistics.

3.36.26 cap

Use this command to view capabilities.

Usage: **nm cap**

Example Output:

```
Max concurrent settings      = 8
Max Power limit value        = 32767 w
Min Power limit value        = 1 w
Max Correction Time settable  = 600000 ms
Min Correction Time settable  = 6000 ms
Max Statistics Reporting period = 3600 s
Min Statistics Reporting period = 1 s
Limiting type                 = platform power limiting
```

Limiting based on $\text{DC power} - \text{PSU output power}$ or bladed system

3.36.27 ver

Use this command to show the version.

Usage: **nm20 ver**

Example Output:

```
Node Manager Version = 2.0
Firmware Version     = 2.09
```

3.36.28 alert

Use this command for NM Alert. Refer to [3.26.10 alert](#) for details.

3.36.29 pstate

Use this command get or set the maximum CPU P-State.

Usage: **nm20 pstate**

Example Output:

```
Current max allowed P-State = 0
Number of P-State = 20
```

3.36.30 tstate

Use this command get or set the maximum CPU T-State.

Usage: **nm20 tstate**

Example Output:

```
Current max allowed T-State = 0
Number of T-State = 8
```

3.36.31 ptstate

Use this command to display both CPU P-State and C-State.

Usage: **nm20 ptstate**

Example Output:

```
P-State : High |#_____| Low      [0/20] (Current/# of State)
T-State : High |#_____| Low    [0/8] (Current/# of State)
```


3.36.32 cpuCore

Use this command to view or set maximum allowed logical processors.

Usage: **nm20 cpuCore**

Example Output:

```
Current Max allowed cores    = 0
Number of logical cores on each processor = 8
Number of installed processor packages    = 0
```

3.36.33 cpuMemTemp

Use this command to view CPU or memory temperature.

Usage: **nm20 cpuMemTemp**

Example Output:

```
CPU#0 = 31(c) (TJmax = 95,DTS = 64)
CPU#1 = 33(c) (TJmax = 95,DTS = 62)
[CPU#0]CHANNEL#0, DIMM#0(P1_DIMMA1) = 27(c)
[CPU#0]CHANNEL#1, DIMM#0(P1_DIMMB1) = 27(c)
[CPU#0]CHANNEL#2, DIMM#0(P1_DIMMC1) = 27(c)
[CPU#0]CHANNEL#3, DIMM#0(P1_DIMMD1) = 26(c)
[CPU#1]CHANNEL#0, DIMM#0(P2_DIMME1) = 26(c)
[CPU#1]CHANNEL#1, DIMM#0(P2_DIMMF1) = 26(c)
[CPU#1]CHANNEL#2, DIMM#0(P2_DIMMG1) = 26(c)
[CPU#1]CHANNEL#3, DIMM#0(P2_DIMMH1) = 26(c)
```

3.36.34 hostCpuData

Use this command to display host CPU data.

Usage: **nm20 hostCpuData**

Example Output:

```
Host CPU data:
End of POST notification was received
Host CPU discovery data is valid
Number of P-States = 16
Number of T-States = 15
Number of installed CPUs/socket = 2
Processor Discovery Data-1 = 26 24 24 22 22 21 21 21
Processor Discovery Data-2 = 00 1D 01 64 00 0C 00 00
```

3.36.35 totalPower

Use this command to get or set Total Power Budget.

3.37 HDD

Entering the hdd command to display the physical and logical HDD status. .

3.37.1 map

Use this command to display the HDD present or error status.

Usage: **hdd map**

Example Output:

```
172.31.11.86 X9DR3-LN4F+ (S0/G0) 17:22 SIM(WA)>hdd map
Enclosure Set :1
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
-----
O O O O O O O O O O O O O O O O O O O O O O O O O
Enclosure Set :2
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
-----
O O O O O O O O O O O O O - - - - - - - - - - - - -
Enclosure Set :6
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
-----
O - - - - - - - - - - - - - - - - - - - - - - - - -
O: OK
X: Error
```

3.37.2 info

Use this command to display HDD information.

Usage: **hdd info**

Example Output:

```
172.31.11.86 X9DR3-LN4F+ (S0/G0) 17:22 SIM(WA)>hdd info
```

Index	Vendor	Name	Ver	Speed	Size	Temp	EID	Status
0	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
1	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
2	SEAGATE	ST32000444SS	0005	6.0Gb/s	1.8 TB	N/A	4	UNCONFIG_GOOD
3	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
4	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
5	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
6	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
7	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
8	SEAGATE	ST3500414SS	0005	6.0Gb/s	464.7 GB	N/A	4	UNCONFIG_GOOD
9	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
10	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
11	SEAGATE	ST31000424SS	0003	6.0Gb/s	930.4 GB	N/A	4	UNCONFIG_GOOD
12	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	32	2	UNCONFIG_GOOD
13	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	31	2	UNCONFIG_GOOD
14	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	31	2	UNCONFIG_GOOD
15	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	32	2	UNCONFIG_GOOD
16	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	32	2	UNCONFIG_GOOD
17	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	31	2	UNCONFIG_GOOD
18	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	31	2	UNCONFIG_GOOD
19	TOSHIBA	MBF2600RC	0107	6.0Gb/s	557.9 GB	31	2	UNCONFIG_GOOD
20	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	31	2	UNCONFIG_GOOD

21	TOSHIBA	MBF2600RC	0107	6.0Gb/s	557.9 GB	32	2	UNCONFIG_GOOD
22	TOSHIBA	MBF2600RC	0107	6.0Gb/s	557.9 GB	31	2	UNCONFIG_GOOD
23	TOSHIBA	MBF2600RC	0108	6.0Gb/s	557.9 GB	32	2	UNCONFIG_GOOD

3.37.3 disk

Use this command to display detailed HDD information by index.

Usage: **hdd disk <index>**

Example Output:

```
172.31.11.86 X9DR3-LN4F+ (S0/G0) 17:22 SIM(WA)>hdd disk 1
Field                | Value
-----|-----
Vendor                | SEAGATE
Name                  | ST31000424SS
revision              | 0003
Media Err Count       | 0
Other Err Count       | 0
Pred Fail Count       | 0
last Pred Fail Seq    | 0
FW state              | Unconfigured good drive
link Speed            | 6.0Gb/s
Coerced Size          | 930.4 GB
Temperature           | N/A
Enclosure ID          | 4
```

3.37.4 lmap

Use this command to display logical HDD present status.

Usage: **hdd lmap**

3.37.5 linfo

Use this command to display logical HDD information.

Usage: **hdd linfo**

3.37.6 ldisk

Use this command to display the detailed information of logical HDD by index.

Usage: **hdd ldisk <index>**

3.38 Tagloc

Use this command to save server location information into BMC. With the '!' hotkey, the location information is listed in shell mode or the Tagloc command. Most tags are stored as numeric values.

Usage: **tagloc**

3.38.1 dataCenter

Use this command to get or set data center tag.

Usage: **dataCenter** <id>

3.38.2 room

Use this command to get or set room tag.

Usage: **room** <id>

3.38.3 row

Use this command to get or set row tag.

Usage: **row** <id>

3.38.4 rack

Use this command to get or set rack tag.

Usage: **rack** <id>

3.38.5 number

Use this command to get or set number tag.

Usage: **number** <major id> [minor id]

3.38.6 mbType

Use this command to get or set type tag.

Usage: **mbType** <id>

3.38.7 chassisType

Use this command to get or set chassis type tag.

Usage: **chassisType** <id>

3.38.8 PowerType

Use this command to get or set power supply type tag.

Usage: **PowerType** <id>

3.38.9 osType

Use this command to get or set operation system type tag.

Usage: **osType** <id>

3.38.10 string

Use this command to get or set OEM string (maximum length of 20 characters).

Usage: **string** <text>

3.38.11 info

Use this command to display tag information.

Usage: **info**

3.38.12 label

Use this command to display tag label.

Usage: **label**

3.38.13 clear

Use this command to clear tag.

Usage: **clear**

3.38.14 export

Use this command to export information to a file.

Usage: **export** [filename]

3.38.15 import

Use this command to import information from a file.

Usage: **import** [filename]

3.39 bios

This command is set to update X9 BIOS and activate product key. It is required to activate product key before use. Please contact your Super Micro sales representative for details.

Usage: **bios**

3.39.1 ver

Use this command to check the BIOS version.

Usage: **ver**

Use this command to check the BIOS image file.

3.39.3 update

Usage: update <filename> [options]

3.39.4 setKey

3.39.5 getMACs

Usage: **getMACs** <start> <end> <netMask> <file>

3.39.6 setKeys

Use this command to activate multiple product keys for BIOS update.

Usage: **setKeys** <file>

3.40 mg

Use this command to save and load a managed group to the default group in the shell mode. You can simply use the ch command to control the managed BMCs in the default group. Besides, you can also run the hostrun command with the curr parameter to manage the default group. To list all managed servers, use the commands “ch” or “mg list.”

3.40.1 list

Use this command to list the current managed devices.

Usage: **list**

3.40.2 save

Use this command to save the current managed devices to a file.

Usage: **saved** <filename>

3.40.3 load

Use this command to load the managed devices from a file.

Usage: **load** <filename>

3.40.4 default

Use this command to manage the default group.

Usage: **default**

3.40.5 found

Use this command to manage the found group.

Usage: **found**

3.40.6 sort

Use this command to sort the currently managed devices.

Usage: **sort**

3.40.7 clear

Use this command to clear all currently managed devices.

Usage: **clear**

3.40.8 refresh

Use this command to refresh the managed devices.

Usage: **refresh**

3.41 Found

Use this command to save the found BMC devices and copy them to the default group.

3.41.1 list

Use this command to list the found IPMI devices.

Usage: **list**

3.41.2 clear

Use this command to clear the found IPMI devices.

Usage: **clear**

3.41.3 copy

Use this command to copy the found devices to the default managed group.

Usage: **copy** <index1> [index2] [...]

3.41.4 copyall

Use this command to copy all found devices to the default managed group.

Usage: **copyall**

3.41.5 saveAs

Use this command to save the found IPMI devices to a file.

Usage: **saveAs** <filename>

3.41.6 refresh

Use this command to refresh the found IPMI devices to a file.

Usage: **refresh**

3.42 Debug

This command displays raw data between you and BMC. There are 3 display levels.

level 0 : No raw displayed

level 1 : Human read raw data.

IPMI Reqeuest (NetFn, Cmd, Data ...)

BMC Response (Completion, Data ...)

level 2 : IPMI Message raw format

level 3 : IPMI Message raw format with detailed field list

Usage: **debug** [0|1|2|3]

Example Output:

```
debug [0|1|2|3]           Display raw data between you and BMC
```

The setting will be stored into SMCIPMITool.properties once the level has been changed.
The debug level applies both basic mode and shell mode.

Example Output: [ipmi ver] command with different debug level

```
SIM(X9)>debug 0
debug level = 0
level 0 : No raw displayed

SIM(X9)>ipmi ver
Firmware Revision   = 00.10
IPMI Version        = 2.0
Manufacturer ID     = 7C 2A 00
product ID          = BB AA 00

SIM(X9)>debug 1
debug level = 1
level 1 : Human read raw data.
          IPMI Reqeuest (NetFn, Cmd, Data ...)
          BMC  Response (Completion, Data ...)

SIM(X9)>ipmi ver
[ YOU -> BMC : 06 01 ]
[ YOU <- BMC : 00 20 01 00 10 02 BF 7C 2A 00 BB AA 0D 00 00 00 ]
Firmware Revision   = 00.10
IPMI Version        = 2.0
Manufacturer ID     = 7C 2A 00
product ID          = BB AA 00

SIM(X9)>debug 2
debug level = 2
level 2 : IPMI Message raw format

SIM(X9)>ipmi ver
[ YOU -> BMC : 20 18 C8 41 00 01 BE ]
[ YOU <- BMC : 41 1C A3 20 00 01 00 20 01 00 10 02 BF 7C 2A 00 BB AA 0D 00 00 00
D5 ]
```

```
Firmware Revision = 00.10
IPMI Version      = 2.0
Manufacturer ID   = 7C 2A 00
product ID        = BB AA 00
```

```
SIM(X9)>debug 3
debug level = 3
level 3 : IPMI Message raw format with Field listed
```

```
SIM(X9)>ipmi ver
=====
Direction = Request
rsSA       = 20
netFnLun   = 18
checksum1  = C8
rqSA       = 41
rqSeqLun   = 00
cmd        = 01
data       =
checksum2  = BE
Msg Size   = 7(int)
To Array   = 20 18 C8 41 00 01 BE
=====
```

```
=====
Direction = Response
rqSA       = 41
netFnLun   = 1C
checksum1  = A3
rsSA       = 20
rqSeqLun   = 00
cmd        = 01
completionCode = 00
data       = 20 01 00 10 02 BF 7C 2A 00 BB AA 0D 00 00 00
checksum2  = D5
Msg Size   = 23(int)
To Array   = 41 1C A3 20 00 01 00 20 01 00 10 02 BF 7C 2A 00 BB AA 0D 00 00
00 D5
=====
```

```
Firmware Revision = 00.10
IPMI Version      = 2.0
Manufacturer ID   = 7C 2A 00
product ID        = BB AA 00
```

```
SIM(X9)>
```

Appendix A Command Categories

Refer to the chart below to determine the command sets supported by the stated configurations.

V: Supported

O: Supported and IPMI FW dependent.

Command Set	Blade w/ CMM	Server w/ ATEN IPMI Firmware	Server w/ AMI IPMI Firmware	Server w/ Peppercon IPMI Firmware	Server w/ATEN or AMI IPMI FW, ME enabled BIOS and PMBus power supply
Super Blade Management	O				
IPMI Management	V	V	V	V	V
KVM and Virtual Media for Peppercon, AMI, ATEN		O	O	O	O
Group Management	V	V	V	V	V
Deployment Tool (BIOS Refresh)	O	O	O		O
Shell and Command Mode	V	V	V	V	V
Trap Receiver	V	V	V	V	V
Node Management for ME-enabled MB					V
DCMI Management		V	V		V
PMBus Health					V
IPMI Device Discovery	V	V	V	V	V
Script	V	V	V	V	V

Refer to the chart below for the command set categories of the primary commands.

Category	Commands
Super Blade Management	system, failure, blade, gigabit, power, ib, cmm, listtemp, allsel
IPMI Management	sel, user, ipmi, ver, sol
KVM and Virtual Media for Peppercon, AMI, ATEN	Peppercon: dr, kvm, vm AMI: kvmw, vmw ATEN: kvmwa, vmwa
Group Management	host, hostrun
Deployment Tool (BIOS Refresh)	deploy
Shell and Command Mode	ch
Trap Receiver	trap
Node Management for ME-enabled MB	nm, nm20
DCMI Management	dcmi
Power Supply Health	pminfo, psfruInfo
IPMI Device Discovery	find, found
Script	exec

Appendix B VM Command Examples

B.1 AMI IPMI Firmware

Available commands:

<code>vmw floppy <image file></code>	Floppy image as virtual media
<code>vmw usbkey <drive letter></code>	USB key as virtual media
<code>vmw iso <ISO file></code>	ISO file as virtual media
<code>vmw cd <drive letter></code>	CD/DVD drive as virtual media
<code>vmw stopFloppy</code>	Stop connected floppy
<code>vmw stopUsbkey</code>	Stop connected USBKey
<code>vmw stopISO</code>	Stop connected ISO
<code>vmw stopCD</code>	Stop connected CD/DVD
<code>vmw status(st)</code>	Virtual Media status

Example of using floppy image as virtual media:

```
SIMBL(W)>vmw floppy c:\DOS50.img
```

```
Connecting ...Done
```

```
SIMBL(W)>vmw stopFloppy
```

```
Disconnecting ...Done
```

Example of using USB key as virtual media:

```
SIMBL(W)>vmw usbkey h
```

```
Connecting ...Done
```

```
SIMBL(W)>vmw stopUsbkey
```

```
Disconnecting ...Done
```

Example of using ISO file as virtual media:

```
SIMBL(W)>vmw iso c:\fdoem.iso
```

Connecting ...Done

SIMBL(W)>vmw stopISO

Disconnecting ...Done

Example of using CD/DVD drive as virtual media:

SIMBL(W)>vmw cd e

Connecting ...Done

SIMBL(W)>vmw stopCD

Disconnecting ...Done

Example of displaying Virtual Media status:

SIMBL(W)>vmw status

IP : 192.168.12.163

Target Drive : Virtual Floppy

Read Bytes : n/a

Status : Not Connected

Connected to :

Target Drive : Virtual CD

Read Bytes : n/a

Status : Not Connected

Connected to :

B.2 ATEN IPMI Firmware

Available commands:

vmwa devl1list	List available devices for virtual device 1
----------------	---

vmwa devl1drv <index>	Mount drive for virtual device 1
-----------------------	----------------------------------

vmwa devl1stop	Stop virtual device 1
----------------	-----------------------

<code>vmwa dev2list</code>	List available devices for virtual device 2
<code>vmwa dev2cd <index></code>	Mount CD/DVD for virtual device 2
<code>vmwa dev2iso <filename></code>	Mount ISO file for virtual device 2
<code>vmwa dev2stop</code>	Stop virtual device 2
<code>vmwa allstatus</code>	Show all VMWA status
<code>vmwa status</code>	Show status
<code>vmwa log</code>	Show log

Notes:

* Supports 2 virtual devices (device 1 & device 2)

Device 1 will be Hard Disk,USB or Floppy

Device 2 will be CD,DVD or ISO file

* List available devices before mounting virtual media when plugged in Removable device

Example of using USB key as virtual media:

SIM(WA)>vmwa dev1list

```
2: [H: USB Flash]
3: [G: USB HD]
4: [I: USB HD]
5: [C: IDE HD]
6: [D: IDE HD]
```

SIM(WA)>vmwa dev1drv 2

```
Mounting H: USB Flash
Device 1 :VM Plug-In OK!!
```

SIM(WA)>vmwa dev1stop

done

Example of using CDROM as virtual media:

SIM(WA)>vmwa dev2list

```
2: [E: IDE CDROM]
3: [F: SCSI CDROM]
```

SIM(WA)>vmwa dev2cd 2

```
Mounting E: IDE CDROM
Device 2 :VM Plug-In OK!!
SIM(WA)>vmwa dev2stop
Done
```

Example of using ISO image file as virtual media:

```
SIM(WA)>vmwa dev2iso c:\fdoem.iso
```

```
Mounting ISO file: c:\fdoem.iso
Device 2 :VM Plug-In OK!!
SIM(WA)>vmwa dev2stop
```

```
Done
```

Example of showing all VMWA status, status and log:

```
SIM(WA)>vmwa allstatus
```

```
[192.168.12.151]:
Device 1: H: USB Flash
Device 2: None
SIM(WA)>vmwa status
```

```
Device 1: None
Device 2: ISO File [c:\fdoem.iso]
SIM(WA)>vmwa log
```

```
Device 1 :Don't access file on Local storage device
Device 1 :VM Plug-In OK!!
Device 1 :VM Plug-Out OK!! Stop!!
Device 2 :VM Plug-In OK!!
Device 2 :VM Plug-Out OK!! Stop!!
Device 2 :VM Plug-In OK!!
```

B.3 Peppercon IPMI Firmware

Available commands for ISO / Drive Redirection:

dr list	List available local drive
dr iso <drive ID> <path to iso file>	Set ISO redirection
dr drv <drive ID> <drive Letter> [write ? enable]	Set drive redirection

Example of using ISO image redirection:

```
SIMBL>dr iso 1 c:\fdoem.iso
```

```
Connecting Drive Redirection to 192.168.12.123
MSP: trying connection to 192.168.12.123:443
MSP: connected successfully to 192.168.12.123:443
```


Done

Note: ISO redirection will stop once you quit the shell mode

Example of using Drive redirection:

SIMBL>dr list

A: (Removable)

C: (Hard Disk)

D: (Hard Disk)

E: (CD-ROM)

F: (CD-ROM)

G: (Hard Disk)

I: (Hard Disk)

SIMBL>dr drv 1 G

Connecting Drive Redirection to 192.168.12.123

MSP: trying connection to 192.168.12.123:443

MSP: connected successfully to 192.168.12.123:443

Done

Note: The drive redirection will stop once you quit shell mode

Available commands for Virtual Media:

vm status(st)	Virtual media status
vm stop	Stop virtual media
vm floppy	Upload a floppy image as virtual media
vm iso	Virtual media via windows share

Example of using floppy image and ISO image as virtual media:

SIMBL>vm floppy 1 c:\dos50.img

Uploading floppy

.....
.....

Done

SIMBL>vm iso 2 192.168.12.158 blade /ISO/XPE.iso

Done

SIMBL>vm status

Drive 1

Device Status = Internal image set

Image Size = 1474560 (bytes)

Access Mode = Writable
Image source = dos50.img

Drive 2
Device Status = CD-ROM image on Windows share set
Image Size = 89565184 (bytes)
Access Mode = Read-Only
Image source = //192.168.12.158/blade//ISO/XPE.iso

Appendix C Trap Receiver

Available commands:

trap start	Start Trap receiver
trap stop	Stop Trap receiver
trap status(st)	Trap receiver status
trap list	List the received Traps
trap clear	Clear the received Traps
trap save	Save the received Traps to file
trap savepet format	Save as the IPMIView TrapReceiver PET format

Example of using Trap Receiver:

SIM(WA)>ipmi lan snmp

Seq	IP	MAC
---	--	---
1	192.168.12.174	00:00:00:00:00:00
2	0.0.0.0	00:00:00:00:00:00
3	0.0.0.0	00:00:00:00:00:00
4	0.0.0.0	00:00:00:00:00:00
5	0.0.0.0	00:00:00:00:00:00
6	0.0.0.0	00:00:00:00:00:00
7	0.0.0.0	00:00:00:00:00:00
8	0.0.0.0	00:00:00:00:00:00
9	0.0.0.0	00:00:00:00:00:00
10	0.0.0.0	00:00:00:00:00:00
11	0.0.0.0	00:00:00:00:00:00
12	0.0.0.0	00:00:00:00:00:00
13	0.0.0.0	00:00:00:00:00:00
14	0.0.0.0	00:00:00:00:00:00
15	0.0.0.0	00:00:00:00:00:00

SIM(WA)>trap status

Trap Receiver status: Stopped

Trap Received : 0

SIM(WA)>trap start

Trap Receiver Started

(Trap receiver is started by default. See SMCIPMITool.properties)

(When the trap receiver got a SNMP trap, a notice will be displayed.)

SIM(WA) [!Trap(1)]>Info: Use "trap" command for detail.

SIM(WA) [!Trap(1)]>trap list

```
-----  
Trap (1)  
Sender      = 192.168.12.151  
Community   = public  
Sensor      = FAN 3  
Local Time Stamp = 2011/01/03 00:25:32 Mon  
Description :  
Event Dir   : De-assertion  
Lower Non-recoverable - going low  
-----
```

SIM(WA) [!Trap(1)]>trap save snmp.txt

"snmp.txt" file saved

SIM(WA) [!Trap(1)]>trap savepet snmp.pet

"snmp.pet" file saved

SIM(WA) [!Trap(1)]>trap clear

Trap cleared

SIM(WA)>trap stop

Trap Receiver stopped

SIM(WA)>trap status

Trap Receiver status: Stopped

Trap Received : 0

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