SMCIPMITool

User Guide

Release 1.0a

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Super Micro IPMITool User Guide

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Contents

1 Introduction

1.1 Purpose

IPMI (Intelligent Platform Management Interface) is an Intel-defined 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 Set Up

This utility requires Sun JRE 1.5.x or above. Please install Java on your platform in advance of initiating SMCIPMITool. To download, please go to the following link:

http://java.sun.com/javase/downloads/index.jsp

There are two executable files in the SMCIPMITool utility:

- SMCIPMITool.jar: A jar file only.
- SMCIPMITool.exe : A windows executable wrapper for SMCIPMITool.jar

Users can choose either the jar or a native executable file. For Linux environments, an extra setting to the environment is required, as shown below.

Add jre to your PATH line in the .bashrc file: PATH=/usr/java/jre1.5.0_12/bin:$PATH

The "jre1.5.0_12" folder may change depending on your version of Java.

1.3 Key Conventions

1.3.1 Keyboard Shortcuts

Keys	Action
Up Arrow /Down Arrow	Displays the previously executed command
Ctrl + A	Moves the cursor to the previous command line
Ctrl + C	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

1.4 Third Party Software

1.4.1 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.

2 Usage and Command

Enter the console mode and run the following command to start (online help is included):

Usage:

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

or

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

2.2 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

3 Commands

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

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 dhcp

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

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

3.3.2.6.3 vlan

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

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

3.3.2.6.4 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 sych 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 user

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

3.11.1 add

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

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

3.11.2 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
```

3.11.3 delete

Entering the delete command allows you to delete a user.

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

3.11.4 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

3.11.5 test

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

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

3.12 vm

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

3.12.1 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
```

3.12.2 stop

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

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

3.12.3 floppy

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

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

3.12.4 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
```

3.13 ipmi

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

3.13.1 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 |
```

3.13.2 power

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

3.13.2.1 up

Use the power up command to power up a system.

Usage: **ipmi power up**

3.13.2.2 down

Use the power down command to power down a system.

Usage: **ipmi power down**

3.13.2.3 softshutdown

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

Usage: **ipmi power softshutdown**

3.13.2.4 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]**

3.13.2.5 cycle

Use the cycle command to power cycle of a system.

Usage: **ipmi power cycle [interval]**

3.13.2.6 diag

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

Usage: **ipmi power diag**

3.13.3 acpi

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

Usage: **ipmi acpi**

3.13.4 lan

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

3.13.4.1 ip

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

Usage: **ipmi lan ip [ip]**

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

3.13.4.2 mac

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

Usage: **ipmi lan mac [mac]**

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

3.13.4.3 gateway

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

Usage: **ipmi lan gateway [gateway IP]**

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

3.13.4.4 netmask

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

Usage: **ipmi lan netmask [netmask]**

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

3.13.4.5 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
```

3.13.4.6 snmpcomm

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

Usage: **`ipmi lan snmpcomm [community string]`**

Example Output:

```
public
```

3.13.4.7 arp

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

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

3.13.4.8 dhcp

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

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

3.13.4.9 vlan

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

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

3.13.5 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       =
```

3.13.6 oem

Using the oem command will list the following subcommands.

3.13.6.1 clrint

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

Usage: **ipmi oem clrint**

3.13.6.2 id

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

Usage: **ipmi oem id**

3.13.6.3 uid

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

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

3.13.6.4 backup

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

Usage: **ipmi oem backup <filemname>**

3.13.6.5 restore

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

Usage: **ipmi oem restore <filemname> <option>**

3.13.6.6 lani

Use the lani command to interface with the IPMI LAN.

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

3.13.7 reset

Using the reset command will reset IPMI.

Usage: **ipmi reset**

3.13.8 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
```

3.13.9 flash

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

Usage: **ipmi flash <filename>**

3.13.10 flashw

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

Usage: **ipmi flashw <filename>**

3.13.11 raw

Use the raw command to send an IPMI raw command.

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

3.13.12 ipmb

Use the ipmb command to send an IPMI raw command.

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

3.13.13 ipmboem

Use the ipmboem command to send an IPMI raw command.

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

3.13.14 delsdr

Use the delsdr command to delete the SDR.

Usage: **ipmi delsdr <SDR record ID>**

3.14 shell

Entering the shell command will enter the shell mode.

Usage: shell

Example:

```
D:\>SMCIPMITool 192.168.0.1 ADMIN ADMIN shell
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
CMM>
```

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
IPMI>	Others

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 ch

Entering the ch command will change the managed device in shell mode.

Usage: **ch <IP> [username] [password]**

3.17 list

Entering the list command will display all available commands.

Usage: **list**

3.18 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
```

3.19 found

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

Usage: **found [clear]**

3.20 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

3.21 host

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

3.21.1 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
```

3.21.2 reload

Using the reload command will reload the host data.

Usage: **`host reload`**

3.21.3 add

Use the add command to add a host.

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

3.21.4 remove

Use the remove command to remove a host.

Usage: **host remove <host>**

3.21.5 rename

Use the rename command to rename a host.

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

3.21.6 group

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

3.21.6.1 add

Use the add command to add a host group.

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

3.21.6.2 remove

Use the remove command to remove a host group.

Usage: **host group remove <group>**

3.21.6.3 rename

Use the rename command to rename a host group.

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

3.21.6.4 addhost

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

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

3.21.6.5 removehost

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

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

3.22 hostrun

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

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

Example:

```
CMM>hostrun bl ipmi power up

[bl1:192.168.10.243]

Done


[bl2:192.168.10.244]

Done
```

3.23 sc

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

Usage: **sc <command>**

Example:

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)

3.24 pminfo

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

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

Example Output:

```
[SlaveAddress = 78h]

 Item                          |                Value

 ----                          |                -----

 Status                        |          [Status OK]

 AC Input Voltage              |              108.0 V

 AC Input Current              |               1.21 A
```

DC 12V Output Voltage	12.24 V
DC 12V Output Current	8.87 A
Temperature 1	33C/91F
Temperature 2	36C/97F
Fan 1	9160 RPM
DC 12V Output Power	108 W
AC Input Power	125 W
PMBus Revision	0x0001
PWS Serial Number	P7211C940PT0460
PWS Module Number	PWS-721P-1R
PWS Revision	REV1.0

[SlaveAddress = 7Ah]

Item	Value
Status	[Status OK]
AC Input Voltage	108.5 V
AC Input Current	1.35 A
DC 12V Output Voltage	12.08 V
DC 12V Output Current	10.5 A
Temperature 1	35C/95F
Temperature 2	35C/95F
Fan 1	9160 RPM
DC 12V Output Power	126 W
AC Input Power	138 W
PMBus Revision	0x0001
PWS Serial Number	P7211C940PT0459
PWS Module Number	PWS-721P-1R
PWS Revision	REV1.0

3.25 nm

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

3.25.1 detect

Use the detect command to detect if ME is present.

Usage: **nm detect**

Example Output:

```
This device supports Node Manager
```

3.25.2 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
```

3.25.3 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
```

3.25.4 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
```

3.25.5 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
```

3.25.6 resetStat

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

Usage: **nm resetStat [ID]**

3.25.7 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
```

3.25.8 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
```

3.25.9 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)
```

3.25.10 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

Destionation selector = 2
```

3.25.11 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:
```

3.25.12 addPolicy

Use the addPolicy command to add a new policy.

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

Example:

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

Done
```

3.25.13 delPolicy

Use the delPolicy command to delete a policy.

Usage: **nm delPolicy <ID>**

3.25.14 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
```

3.25.15 enablePolicy

Use the enablePolicy command to enable a policy.

Usage: **nm disablepolicy <ID>**

3.25.16 disablePolicy

Use the disablePolicy command to disable a policy.

Usage: **nm disablePolicy <ID>**

3.26 deploy

Entering the deploy command will list the following deploy subcommands.

3.26.1 one

Use the one command to deploy a BIOS or firmware ISO file for a general server.

Usage: **deploy one <ISO file>**

3.26.2 all

Use the all command to deploy a BIOS or firmware ISO file for a SuperBlade system.

Usage: **deploy all <ISO file>**

3.26.3 check

Use the check command to check SuperBlade for deploy task.

Usage: **deploy check**

3.26.4 status

Use the status command to display the current status of a deployment process.

Usage: **deploy status**

3.26.5 clear

Use the clear command to clear and remove all virtual media on a session.

Usage: **deploy clear**

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 redirecion with your local d drive.

The write support is disabled

Example 2: dr drv 1 e enable

This will establish a drive redirecion 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**

3.34 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.

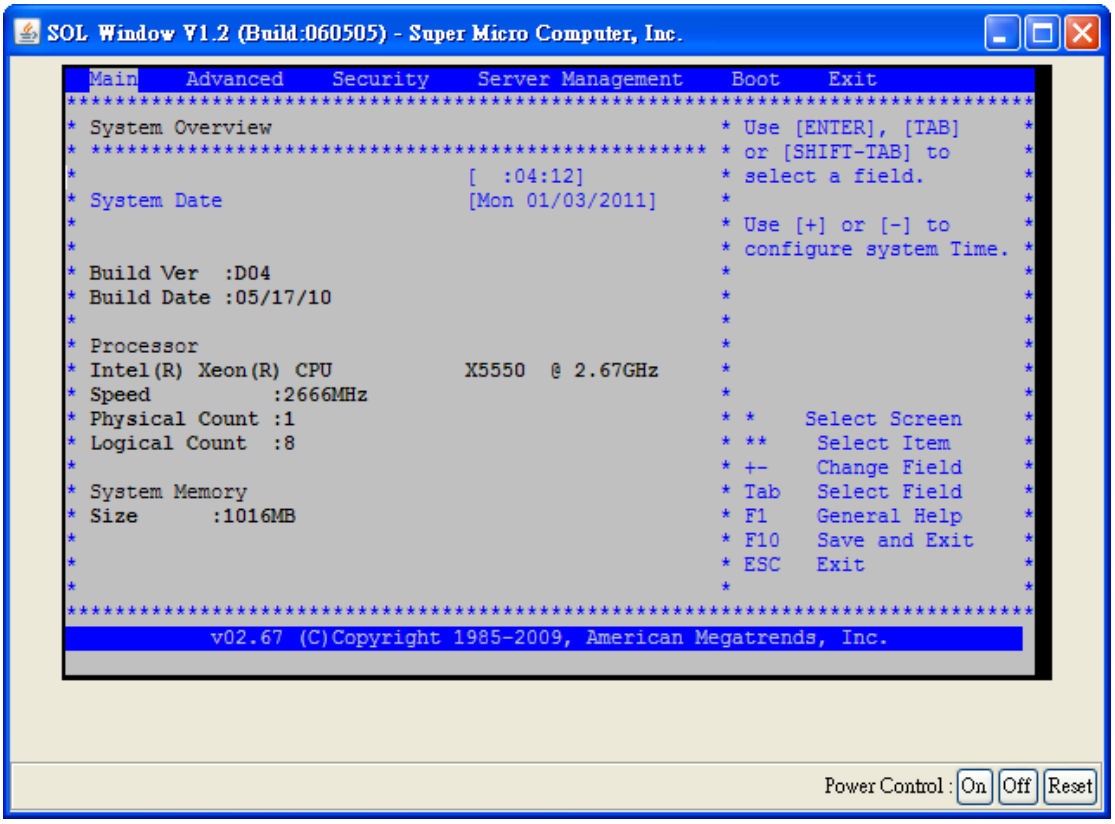
Usage: **sol deactivate**

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]`**

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
DCMI Management	dcmi
PMBus Health	pminfo
IPMI Device Discovery	find, found
Script	exec

Appendix B VM Command Examples

B.1 AMI IPMI Firmware

Available commands:

```
vmw floppy <image file>          Floppy image as virtual media
vmw usbkey <drive letter>        USB key as virutal media
vmw iso    <ISO file>            ISO file as virtual media
vmw cd     <drive letter>        CD/DVD drive as virutal media
vmw stopFloppy                   Stop connected floppy
vmw stopUsbkey                   Stop connected USBKey
vmw stopISO                      Stop connected ISO
vmw stopCD                       Stop connected CD/DVD
vmw status(st)                   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 dev1list              List available devices for virtual device 1

vmwa dev1drv <index>       Mount drive for virtual device 1

vmwa dev1stop              Stop virtual device 1
```

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