

Gigabyte Server Management

Installation and Configuration Guide

Rev. 1.0

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Chapter 1 Getting Started

1-1 Using Your Gigabyte Server Management

Gigabyte Server management has a user-friendly Graphics User Interface (GUI) called the Gigabyte Server management GUI. It is designed to be easy to use. It has a low learning curve because it uses a standard Internet browser. You can expect to be up and running in less than five minutes. This chapter allows you to become familiar with the Gigabyte Server management GUI's various functions. Each function is described in detail.

1-2 Hardware Requirement

Before using Gigabyte Server Management , please check your system for the following required configuration requirements:

- System Processor: 2 GHz and above
- System Memory: Minimum 4 GB RAM
- Free Disk Space: 1000 GB at least
- Node servers : 255 maximum

1-3 Software Requirement

1-3-1 Prerequisites on remote management server

Supported Browsers:

- Internet Explorer 9 or later
- Google Chrome 39.0.2171.65 m or later
- Mozilla Firefox 33.1.1

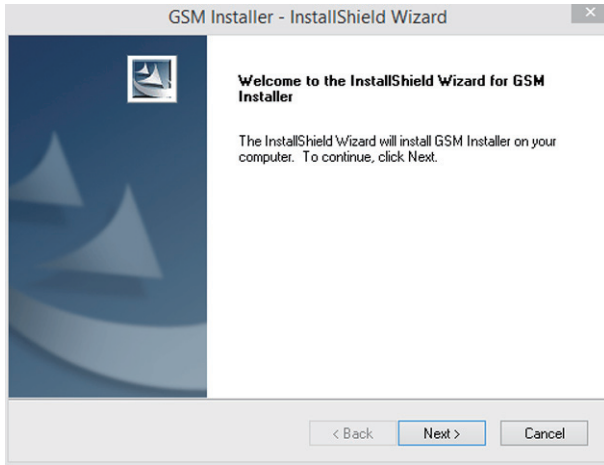
Operating System:

- Windows 2008 & 2012 R2
- Redhat/CentOS 6.3 or later

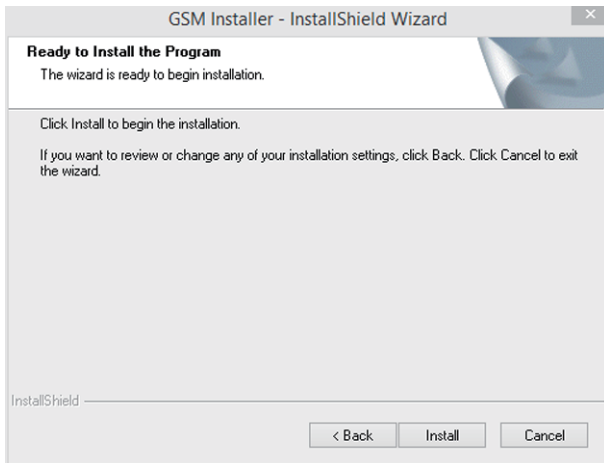
1-4 Installing Gigabyte Server Management (Windows)

1-4-1 Installation Procedure

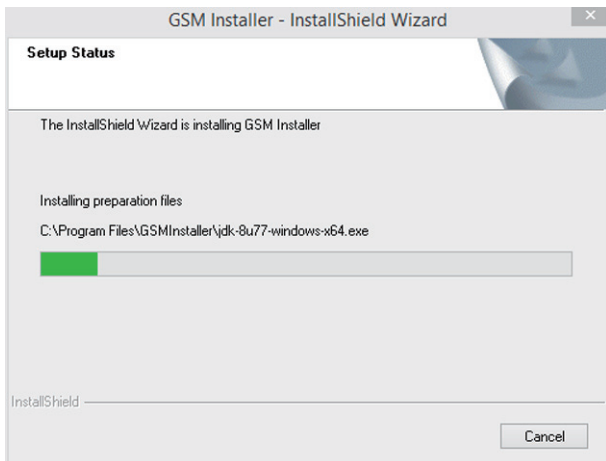
1. Unzip the file and run **GSM_Setup.exe**.
2. Then, a series of installation wizards appear.
3. Click **Next**.



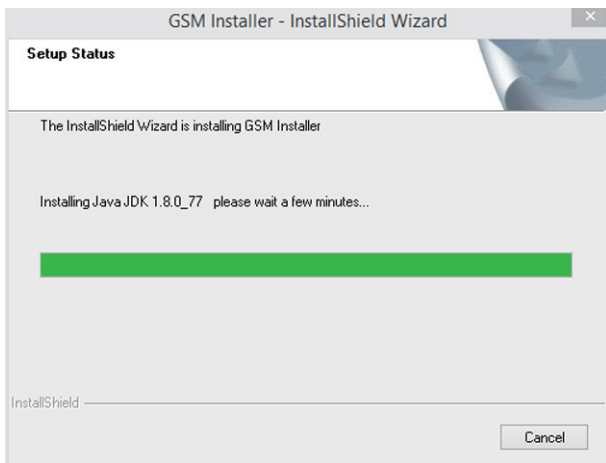
4. Click **Install** to start the nstallation.



5. Installing preparation files.

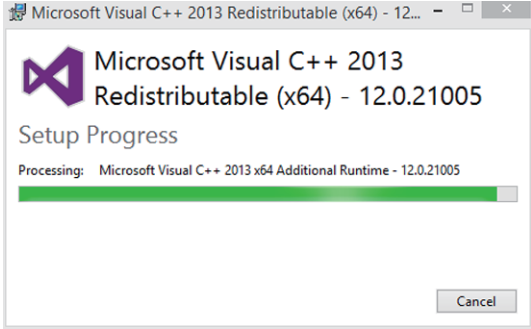


6. Installing Java JDK, this may take few minutes to complete installation.

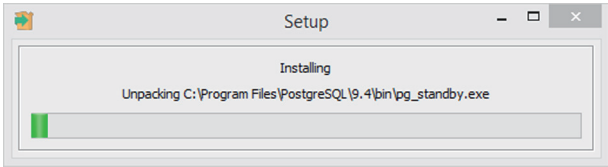


CAUTION! Please make sure you have enough space on your hard drive for the program.

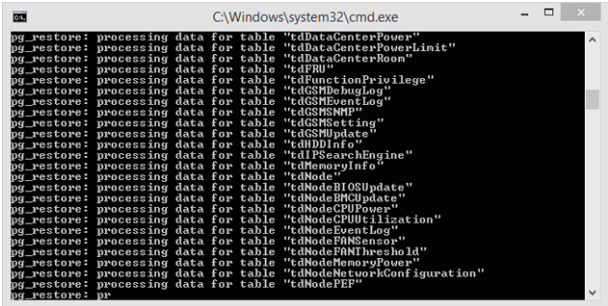
7. Installing Visual C++.



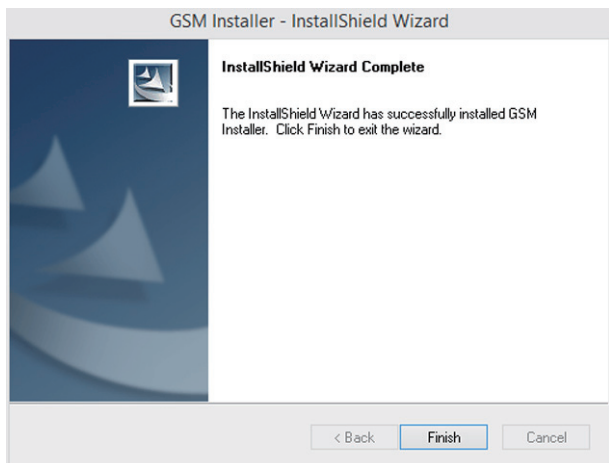
8. Installing PostgreSQL.



9. Setting Database of PostgreSQL.



10. Installation completed, click **Finish**.



1-5 Installing Gigabyte Server Management (Linux)

1-5-1 Tomcat Installation Procedure

1. Unzip apache-tomcat-7.0.47.tar.gz
`tar -zxvf apache-tomcat-7.0.47.tar.gz`
2. Move apache-tomcat-7.0.47 to /root/tomcat7
`mv apache-tomcat-7.0.47 /root/tomcat7`
3. Move GSM.war to /root/tomcat7/webapps
`mv GSM.war /root/tomcat7/webapps`
4. Execute startup.sh
`cd /root/tomcat7/bin`
`./startup.sh`

1-5-2 PostgreSQL Installation Procedure [Ubuntu]

1. Install default-jre
`apt-get install default-jre`
2. Install PostgreSQL
`apt-get install postgresql postgresql-contrib`
3. Open up postgresql.conf file in your favorite editor
`vi /etc/postgresql/9.3/main/postgresql.conf`
4. Alter the listen_addresses as below:
`listen_addresses = '*'`

[Cent OS/RedHat]

1. Remove the old PostgreSQL package.
`yum remove postgresql*`
2. Locate and edit your distributions .repo file, located:
[CentOS] `vi /etc/yum/repos.d/CentOS-Base.repo` ([base] and [updates] sections)
[Red Hat] `vi /etc/yum/pluginconf.d/rhnplugin.conf` ([main] section)
3. To the section(s) identified above, you need to append a line:
`exclude=postgresql*`

4. Download PGDG RPM file
 [CentOS] curl -O
http://yum.postgresql.org/9.3/redhat/rhel-6-x86_64/pgdg-centos93-9.3-1.noarch.rpm
 [Red Hat] curl -O
http://yum.postgresql.org/9.3/redhat/rhel-6-x86_64/pgdg-redhat93-9.3-1.noarch.rpm
5. Install PGDG RPM file
 [CentOS] rpm -ivh pgdg-centos93-9.3-1.noarch.rpm
 [Red Hat] rpm -ivh pgdg-redhat93-9.3-1.noarch.rpm
6. Install PostgreSQL
 yum install postgresql93-server
7. Initialize
 service postgresql-9.3 initdb
8. Startup
 chkconfig postgresql-9.3 on

1-5-3 Restore dbGSMv0XX.backup

1. Modify pg_hba.conf file

[Ubuntu]

```
vi /etc/postgresql/9.3/main/pg_hba.conf
```

[CentOS / Red Hat]

```
vi /var/lib/pgsql/9.3/data/pg_hba.conf
```

2. Edit

TYPE	DATABASE	USER	ADDRESS	METHOD
Local	all	all→postgres		peer→trust
host	all	all→postgres	127.0.0.1/32	indent→trust
host	all	all→postgres	:::1/128	indent→trust

:wq to save edited file.

3. Start service

[Ubuntu]

```
service postgresql restart
```

[CentOS / Red Hat]

```
service postgresql-9.3 start
```

4. Create database

```
createdb -U postgres dbGSM
```

5. Restore dbGSMv0XX.backup to database

```
pg_restore -h 127.0.0.1 -p 5432 -U postgres -d dbGSM -v "dbGSMv0XX.backup"
```

1-5-4 pgadminIII Installation Procedure (Optional)

[CentOS]

1. Install pgadmin3
yum install pgadmin3_93
2. Execute pgadmin3
pgadmin3 &
3. File -> Add server

[Redhat]

1. Get wxBase
curl -O
http://yum.postgresql.org/9.2/redhat/rhel-6.5-x86_64/wxBASE-2.8.12-1.el6.x86_64.rpm
2. Install wxBase
rpm -ivh wxBase-2.8.12-1.el6.x86_64.rpm
3. Get wxGTK
curl -O
http://yum.postgresql.org/9.2/redhat/rhel-6.5-x86_64/wxGTK-2.8.12-1.el6.x86_64.rpm
4. Install wxGTK
rpm -ivh wxGTK-2.8.12-1.el6.x86_64.rpm
5. Get PgAdmin3
curl -O
http://yum.postgresql.org/9.3/redhat/rhel-6.5-x86_64/pgadmin3_93-1.18.1-2.rhel6.x86_64.rpm
6. Install PgAdmin3
rpm -ivh pgadmin3_93-1.18.1-2.rhel6.x86_64.rpm
7. Execute pgadmin3
pgadmin3 &
8. File -> Add server

1-5-5 Login Gigabyte Server Management

1. Open a browser and enter URL

`http://localhost:8080/GSM/`

2. Enter Database User Name

`postgres`

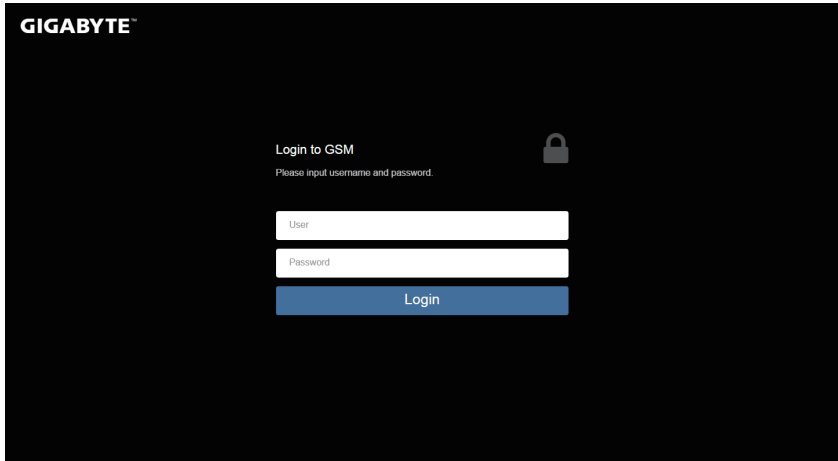


- This utility supported CentOS 6.3 or later version.
- PostgreSQL must be execute in root authority.
- In Fedora 19, you have to install package in the following:
Locate and edit your distributions .repo file, located:
`vi /etc/yum.repos.d/fedora.repo` and `/etc/yum.repos.d/fedora-updates.repo`
([fedora] sections)

Install PGDG RPM file:
`curl -O`
`http://yum.postgresql.org/9.3/redhat/rhel-6-x86_64/pgdg-centos93-9.3-1.noarch.rpm`

Initialize:
`/usr/pgsql-9.3/postgresql93-setup initdb`

2-1 Overview



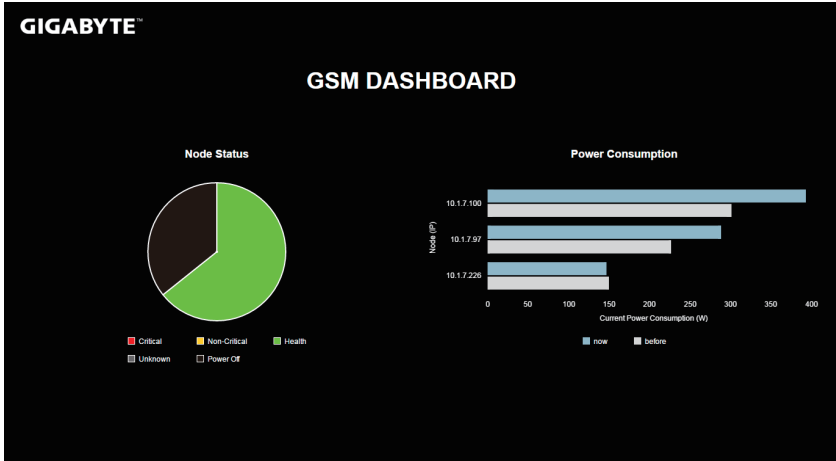
1. Open a web browser and type in your identified IP. The IP address can be found using your DHCP server.
2. Enter the following values:
 - Username: **admin**
 - Password: **password**



- The default user name and password are in lower-case characters.
- When you log in using the root user name and password, you have full administrative powers. It is advised that once you log in, you change the root password.

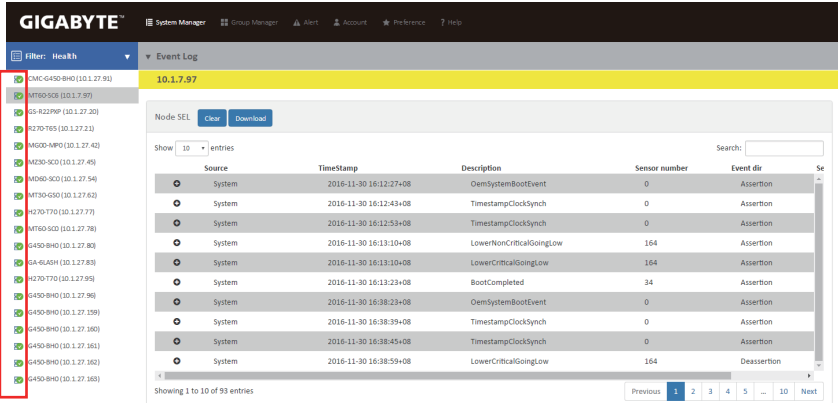
2-2 Enter Gigabyte Server Management






After you successfully log into your Gigabyte Server Management, the Remote Management GUI appears. Click **Node Status image** for advanced configuration.



After you entering into your Management Console, the Management Console GUI appears.

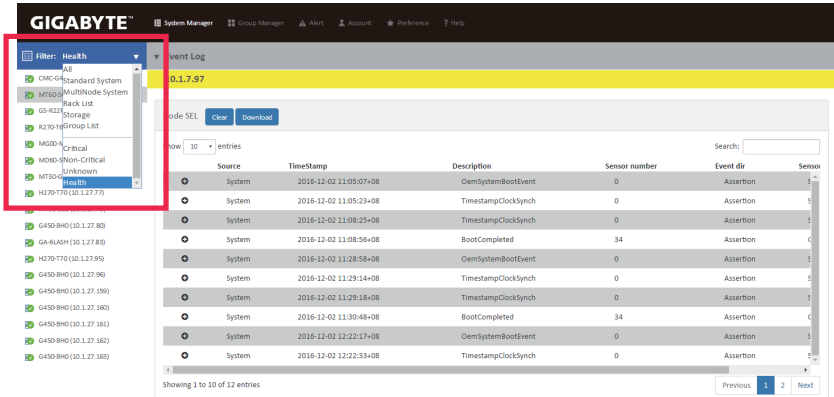
Management Console Information shows the general system health status of the current remote node. The node health status will appear on the left side with different color, each color definition will be described in the following:



Icon	Decription/Resulting Action
	Normal: All nodes and sensor are normal and there's no sensor that has any alert.
	Warning: There's at least one node/sensor that has warning alert.
	Unknown: There's not critical alert or non-critical alert classified as unknown status.
	Critical: There's at least one node/sensor that has critical alert.
	Non-connected: This indicates the identified node is not connected.

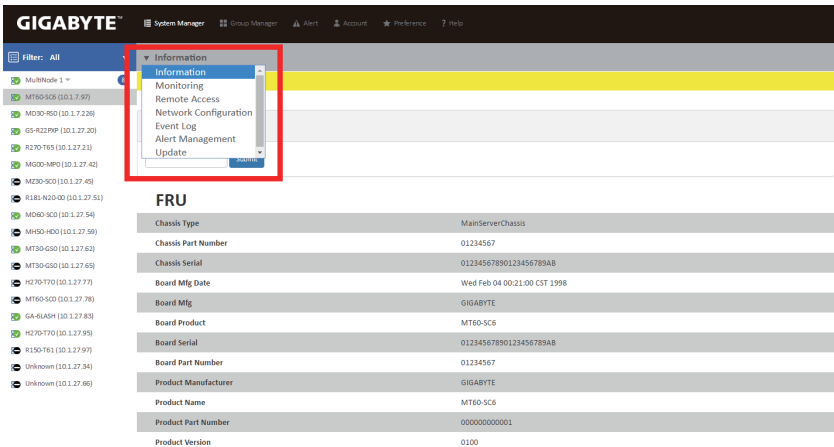
2-2-1 System Manager

System Manager provides the function of List all connected node systems. Click the drop-down list to filter and select specific node group.



The screenshot shows the Gigabyte System Manager interface. The top navigation bar includes 'System Manager', 'Group Manager', 'Alert', 'Account', 'Preference', and 'Help'. A dropdown menu is open under the 'Filter: Health' section, listing various system categories such as 'All', 'CMC-64 Standard System', 'MT60 MultiNode System', 'OS-R22P', 'R370-T65 Storage', 'R370-T65 Group List', 'MG00', 'MG00-Critical', 'MG00-Non-Critical', 'MT60', and 'Health'. The 'Health' option is currently selected. Below the filter, a list of nodes is visible, each with a status icon and a label like 'G450-B40 (10.1.27.80)'. The main content area displays an 'Event Log' for node 'B.1.7.97'. It includes a 'Node SEL' dropdown, 'Clear', and 'Download' buttons. A table lists events with columns for Source, TimeStamp, Description, Sensor number, Event dir, and Sensor. The table shows several 'System' events, including 'OemSystemBootEvent', 'TimestampClockSynch', 'BootCompleted', and 'Assertion'. At the bottom, it indicates 'Showing 1 to 10 of 12 entries' and has navigation buttons for 'Previous', '1', and 'Next'.

And the click the drop-down list for advanced configuration.



The screenshot shows the Gigabyte System Manager interface. The top navigation bar is the same as in the previous image. A dropdown menu is open under the 'Filter: All' section, listing various system categories such as 'Information', 'Monitoring', 'Remote Access', 'Network Configuration', 'Event Log', 'Alert Management', and 'Update'. The 'Information' option is currently selected. Below the filter, a list of nodes is visible, each with a status icon and a label like 'MultiNode 1 +', 'MT60-SC6 (10.1.7.97)', 'MG00-R50 (10.1.7.236)', 'OS-R22P (10.1.27.30)', 'R370-T65 (10.1.27.21)', 'MG00-MP0 (10.1.27.42)', 'M230-KC0 (10.1.27.48)', 'R181-N20-00 (10.1.27.51)', 'MG00-KC0 (10.1.27.54)', 'M450-H00 (10.1.27.59)', 'MT30-G00 (10.1.27.62)', 'MT30-G00 (10.1.27.62)', 'H270-T70 (10.1.27.77)', 'MT60-S00 (10.1.27.78)', 'G4-6LASH (10.1.27.83)', 'H270-T70 (10.1.27.83)', 'P150-T61 (10.1.27.97)', 'Unknown (10.1.27.34)', and 'Unknown (10.1.27.66)'. The main content area displays 'FRU' (Field Replaceable Unit) information for a selected node. It includes a table with columns for 'Chassis Type', 'Chassis Part Number', 'Chassis Serial', 'Board Mfg Date', 'Board Mfg', 'Board Product', 'Board Serial', 'Board Part Number', 'Product Manufacturer', 'Product Name', 'Product Part Number', and 'Product Version'. The table shows details for a 'MainServerChassis' with part number '01234567' and manufacturer 'GIGABYTE'.

2-2-1-1 Information

The **Information** is a display page for basic system health information, such as FRU information, hardware information, and software information. Items on this window are non-configurable.

▼ Information

10.1.27.109

Description Setting

Submit

FRU

Chassis Type	MainServerChassis
Chassis Part Number	01234567
Chassis Serial	01234567890123456789AB
Board Mfg Date	Mon May 02 13:36:00 CST 2016
Board Mfg	GIGABYTE
Board Product	MD60-SC0
Board Serial	3/A/EG7P6800011
Board Part Number	01234567
Product Manufacturer	GIGABYTE
Product Name	MD60-SC0

Hardware

CPU	SOCKET 0 / Intel Intel(R) Xeon(R) CPU E5-2640 v3 @ 2.60GHz SOCKET 1 /
Memory	DIMM_P0_A0 / NO DIMM NO DIMM/NO DIMM DIMM_P0_A1 / NO DIMM NO DIMM/NO DIMM DIMM_P0_B0 / NO DIMM NO DIMM/NO DIMM DIMM_P0_B1 / NO DIMM NO DIMM/NO DIMM DIMM_P0_C0 / Micron 18ASF1G72P2-2G14W/B1006735 DIMM_P0_CL / NO DIMM NO DIMM/NO DIMM DIMM_P0_D0 / NO DIMM NO DIMM/NO DIMM DIMM_P0_D1 / NO DIMM NO DIMM/NO DIMM DIMM_P1_E0 / NO DIMM NO DIMM/NO DIMM DIMM_P1_E1 / NO DIMM NO DIMM/NO DIMM DIMM_P1_F0 / NO DIMM NO DIMM/NO DIMM DIMM_P1_F1 / NO DIMM NO DIMM/NO DIMM DIMM_P1_G0 / NO DIMM NO DIMM/NO DIMM DIMM_P1_G1 / NO DIMM NO DIMM/NO DIMM DIMM_P1_H0 / NO DIMM NO DIMM/NO DIMM DIMM_P1_H1 / NO DIMM NO DIMM/NO DIMM
HDD	N/A

Software

BMC Version	3.11
BIOS Version	R02
LAN 1 MAC	40:8d:5c:ba:c9:1c
LAN 2 MAC	40:8d:5c:ba:c9:1d
LAN 3 MAC	00:00:00:00:00:00
LAN 4 MAC	00:00:00:00:00:00

BIOS Info

Type0 BIOS Information:

* Vendor: GIGABYTE
* BIOS version: R02
* BIOS release date: 11/24/2016

Type1 System Information:

* Manufacturer: GIGABYTE
* Product name: MD60-SC0
* Version: 0100
* Serial number: 01234567890123456789AB

2-2-1-2 Monitoring

The **Monitoring** displays a real-time record of the node system fan and voltage information. Items on this window are non-configurable.

▼ Monitoring

10.1.7.31

LM SDR

Show entries Search:

Status	Probe Name	Reading	Lower Non-Critical	Upper Non-Critical	Lower Critical	Upper Critical	Lower Non-Recoverable	Upper Non-Recoverable
N/A	BP1_F_Temp	Unavailable	N/A	85	N/A	90	N/A	N/A
N/A	CPU0_TEMP	Unavailable	0	0	0	0	0	0
N/A	CPU1_TEMP	Unavailable	0	0	0	0	0	0
N/A	BP1_M_Temp	Unavailable	N/A	85	N/A	90	N/A	N/A
N/A	PCH_TEMP	Unavailable	0	0	0	0	0	0
N/A	BP1_R_Temp	Unavailable	N/A	85	N/A	90	N/A	N/A
N/A	BP2_F_Temp	Unavailable	N/A	85	N/A	90	N/A	N/A
N/A	DIMMG0_TEMP	Unavailable	0	0	0	0	0	0
N/A	DIMMG1_TEMP	Unavailable	0	0	0	0	0	0
N/A	BP2_M_Temp	Unavailable	N/A	85	N/A	90	N/A	N/A

Previous 1 2 3 4 5 ... 8 Next

LM Sensor Monitor - fan

Wed Nov 30 2016 09:40:40 GMT+0800 (台北標準時間)

FAN4: 0
 CPU0_FAN: 0
 FAN5: 0
 CPU1_FAN: 0
 SYS_FAN2: 0
 SYS_FAN5: 0
 FAN6: 0
 SYS_FAN4: 0
 FAN2: 0
 SYS_FAN1: 0
 FAN3: 0
 SYS_FAN3: 0
 FAN1: 0

2-2-1-3 Remote Access

The **Remote Access** provides the following remote functions:

- Power Control Configuration
- Chassis Identify
- Boot Option
- Launch iKVM
- Reboot BMC
- Restore BIOS default settings
- Mount/Unmount Virtual Media
- Network Time Protocol Configuration
- BMC Account Configuration

Power Control


User can power on/off/cycle/and hard reset the remote host system in **power control**.

Remote Access

10.1.7.226

Node Type:OFF





Power Control



Chassis Identify

Light on chassis identify in second(s)

Boot Option Legacy

Icon	Decription/Resulting Action
	Power on system.
	Power off system.
	Power cycle system.
	Hard reset system.

Chassis Identify

Chassis Identify

Light on chassis identify in second(s)

Boot Option

Boot Option

iKVM

iKVM

Reboot BMC

Reboot BMC

Restore BIOS default settings

Restore BIOS default settings

Select files for restore BIOS default settings.

For BIOS load default setup, need to check below files contain:
nvram.log
biosinfo.txt

Parameter	Decription/Resulting Action
Chassis Identify	Define the chassis lighting time. When you finish configuration, click Submit .
Boot Option	Select boot option by clicking specified device tab.
iKVM	Click Launch to launch the redirection console and manage the server remotely. Please ensure that you have latest version of JAVA tool to active the Java KVM console.
Reboot BMC	Click RebootBMC to restart BMC.
Restore BIOS default settings	Click Browse and select the file on your local system and click Restore to restore BIOS default setting.

Virtual Media

User can mount an ISO Image via Virtual Media function page.

Follow the instructions below to mount or unmount an ISO image.

1. To mount an ISO image, select the ISO image and click **Mount**.
2. To unmount an ISO image, select the ISO image and click **Unmount**.

Virtual Media
(Not yet supported on windows.)

Select by File (.iso or .img)

Select	File Name	File Size (MB)	Path
<input type="checkbox"/>			

Select by Local Devices

Select	Name	Type	Size	Model
<input type="checkbox"/>	/dev/sda	disk	465.8G	ST500DM002-1BD14
<input checked="" type="checkbox"/>	/dev/sda1	part	54G	
<input type="checkbox"/>	/dev/sda2	part	1.9G	

Port Number (Default:2068) :



NOTE! Virtual Media does not support Windows operating system.

Network Time Protocol

Network Time Protocol provides Network configuration. User can view and modify the network settings on this screen. Select the Operation Mode from the drop-down list.

Network Time Protocol

Operation Mode:

Network Time Protocol Server 1:

Network Time Protocol Server 2:

Network Time Protocol Server 3:

Requested Mode's Update Frequency (minutes):

Time Synchronization Method: Step Mode Slew Mode

Parameter	Decription/Resulting Action
Dedicate Mode	Request an immediate clock synchronization with the NTP server; request will be sent when click the Sync Time Now button.
Daemon Mode	Runs NTP daemon which sends a NTP request at approximately 5 minute intervals. Multiple NTP servers may be specified to provide redundancy.

BMC Account Configuration

User can configure the administrator ID and password in this section. After finish configuration, click **Sumit**.

BMC Account Configuration

This setting using on GSM is for accessing BMC, the original bmc account and password will not be changed.

User Name

Password

2-2-1-4 Network Configuraiton

This page provides Group IPv4 and IPv6 DHCP configuration.

▼ Network Configuration

10.1.27.159

IPv4 Settings

Enabled	Enable
Use DHCP	<input checked="" type="checkbox"/>
IP Address	10.1.27.159
Subnet Mask	255.255.255.0
Gateway	10.1.27.253

Submit

IPv6 Settings

Enabled	Enable
Use DHCP	<input checked="" type="checkbox"/>
IP Address	:::0
Gateway	::
Link Local Address	fe80::428d:5cff:feb1:ee6c/64

Submit

Parameter	Decription/Resulting Action
IPv4 setting	
IPv6 Setting	
Use DHCP	Click on tab to enable or disable this function
IP Address	Identify the IP address.
Subnet Mask	Configure the Subnet Mask address.
Gateway	Define the Gateway address

When you finish configuration, clclick **Submit** to save your configuration.

2-2-1-5 Event Log

Event Log displays the connected Node system event log information.

Click **Clear** to clear current system event log.

Click **Download** to download current system event log.

▼ Event Log

10.1.7.97

Node SEL [Clear](#) [Download](#)

Show 10 entries

	Source	TimeStamp	Description	Sensor number	Event dir	Sensor typ
○	System	2016-12-02 11:05:07-08	DemSystemBootEvent	0	Assertion	System
○	System	2016-12-02 11:05:23-08	TimestampLockSynch	0	Assertion	System
○	System	2016-12-02 11:08:25-08	TimestampLockSynch	0	Assertion	System
○	System	2016-12-02 11:08:56-08	BootCompleted	54	Assertion	OutBoot
○	System	2016-12-02 11:28:58-08	DemSystemBootEvent	0	Assertion	System
○	System	2016-12-02 11:29:14-08	TimestampLockSynch	0	Assertion	System
○	System	2016-12-02 11:29:18-08	TimestampLockSynch	0	Assertion	System
○	System	2016-12-02 11:30:49-08	BootCompleted	54	Assertion	OutBoot
○	System	2016-12-02 12:22:17-08	DemSystemBootEvent	0	Assertion	System
○	System	2016-12-02 12:22:33-08	TimestampLockSynch	0	Assertion	System

Showing 1 to 10 of 40 entries

Previous 1 2 3 4 Next

2-2-1-6 Alert Management

Alert Management contains two categories: **SNMP Trap Setting** and **Platform Events Filters (PEF)**. Each category will be described in the following section.

SNMP Trap Setting

In the Trap Settings, user can set the IPv4 and Ipv6 Destination List.

IPv6 and IPv4 are two completely separate protocols. IPv6 is not backwards compatible with IPv4, and IPv4 hosts and routers will not be able to deal directly with IPv6 traffic.

IPv6 has a significantly larger address space than IPv4. This results from the use of a 128-bit address, whereas IPv4 uses only 32 bits.

When you finish the configuration, click **Submit** to save configuration.

Alert Management

10.1.27.159

SNMP Trap Setting

IPv4 Destination	Enable	IPv4 Address
1	<input checked="" type="checkbox"/>	10.1.7.141
2	<input checked="" type="checkbox"/>	10.1.7.44
3	<input checked="" type="checkbox"/>	10.1.7.124
4	<input checked="" type="checkbox"/>	192.168.58.1

IPv6 Destination	Enable	IPv6 Address
1	<input type="checkbox"/>	::
2	<input type="checkbox"/>	::
3	<input type="checkbox"/>	::
4	<input type="checkbox"/>	::

Platform Events Filters (PEF)

A platform event filter (PEF) can trigger an action and generate an alert when a critical hardware-related event occurs. For each PEF, you can choose the action to be taken when a platform event occurs.

You can also choose to generate and send an alert when a platform event occurs. In the Platform Events screen.

When you finish configuration, click **Submit**.

▼ Alert Management

Platform Events Filters (PEF)

Platform Events Filters (PEF) Action Global Control List

Action Name

- Reboot
- Power Cycle
- Power Off
- Generate PET

Events List

Global Alerting Enable * Note: (This enables/disables both PEF alerts).

Filter Name	None	Reboot	Power Cycle	Power Off	Generate PET
Threshold Type, Temperature Critical Filter	<input type="radio"/> None	<input type="radio"/> Reboot	<input type="radio"/> Power Cycle	<input type="radio"/> Power Off	<input type="checkbox"/>
Threshold Type, Temperature Warning Filter	<input checked="" type="radio"/> None	<input checked="" type="radio"/> Reboot	<input checked="" type="radio"/> Power Cycle	<input checked="" type="radio"/> Power Off	<input type="checkbox"/>
Threshold Type, Voltage Critical Filter	<input type="radio"/> None	<input type="radio"/> Reboot	<input type="radio"/> Power Cycle	<input type="radio"/> Power Off	<input type="checkbox"/>
Threshold Type, Voltage Warning Filter	<input checked="" type="radio"/> None	<input checked="" type="radio"/> Reboot	<input checked="" type="radio"/> Power Cycle	<input checked="" type="radio"/> Power Off	<input type="checkbox"/>
Threshold Type, Fan Critical Filter	<input type="radio"/> None	<input type="radio"/> Reboot	<input type="radio"/> Power Cycle	<input type="radio"/> Power Off	<input type="checkbox"/>
Threshold Type, Fan Warning Filter	<input checked="" type="radio"/> None	<input checked="" type="radio"/> Reboot	<input checked="" type="radio"/> Power Cycle	<input checked="" type="radio"/> Power Off	<input type="checkbox"/>
Sensor-specific Type, Chassis Intrusion Critical Filter	<input type="radio"/> None	<input type="radio"/> Reboot	<input type="radio"/> Power Cycle	<input type="radio"/> Power Off	<input type="checkbox"/>
Sensor-specific Type, Chassis Intrusion Informational Filter	<input checked="" type="radio"/> None	<input checked="" type="radio"/> Reboot	<input checked="" type="radio"/> Power Cycle	<input checked="" type="radio"/> Power Off	<input type="checkbox"/>
Sensor-specific Type, Biosensor Critical Filter	<input type="radio"/> None	<input type="radio"/> Reboot	<input type="radio"/> Power Cycle	<input type="radio"/> Power Off	<input type="checkbox"/>

2-2-1-7 Updates

User can update node last log, PSU/BMC/BIOS firmware, logo, and CPLD in this page
To update specific item, follow the instruction below:

1. Select package from the drop-down list.
2. Select the file on your local system using Browse.
3. Click **Update** to update to the new version of firmware.

▼ Update

10.1.7.97

Update node

BMC Version: 0.16
BIOS Version: T22

Select package and update

PSU

Update Logo

Select image and update

The upload file should include logo_left.png and logo_background.png packaged as tar, and should smaller than 50KB.

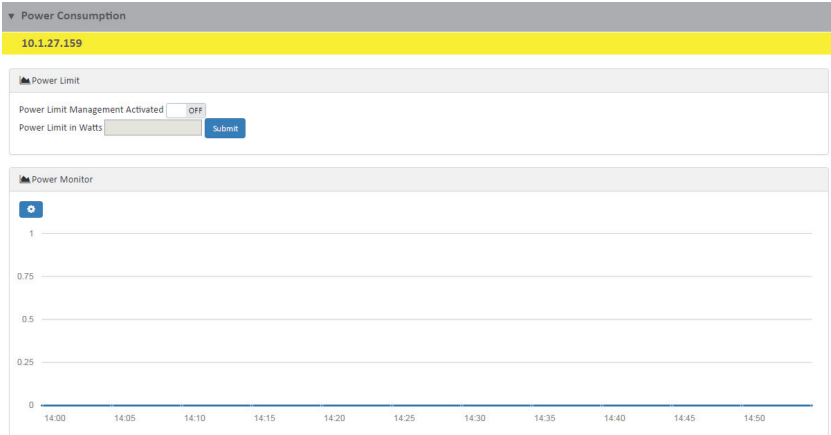


NOTE! GSM has built-in TFTP server, users have to activate TFTP server and configure GSM server IP address before updating BIOS, BMC or CPLD.

2-2-1-8 Power Consumption^(Note)

This screen displays information on the system power consumption. The information includes Current Power Consumption, Power consumption configuration and Power consumption monitoring.

To configure power limit, set Power Limit Management Activated to **ON** and input the value in the respective column. Click **Submit** to save configuration.



NOTE! Function available on selected models.

2-2-2 Group Manager

Group Manager provides the function of Create group, Edit group, Delete group, and Search function of current remote grouped client systems. Click **Group Manager** for advanced configuration.

The screenshot displays the Gigabyte Group Manager interface. At the top, the navigation bar includes 'System Manager', 'Group Manager' (highlighted with a red box), 'Alert', 'Account', 'Preference', and 'Help'. The main area shows a 'Group Setting' section. On the left, there is a 'Filter: Group List' dropdown menu with options for 'TEST', 'CMC-G450-BHD', and 'Multinode 1'. The main content area features a table with columns: 'Select', 'Group ID', 'Group Name', 'Group Type', and 'Description Setting'. The table lists three groups: 'TEST' (ID 0001, Type: Standard without CMM), 'CMC-G450-BHD' (ID 0002, Type: Standard with CMM), and 'Multinode 1' (ID 0003, Type: Standard with CMM). Below the table, there is a 'Group Setting' form with a 'Group Name' field containing 'TEST' and a 'Group Type' dropdown menu set to 'OpenRack1.0'. There are 'Submit' and 'Close' buttons at the bottom of the form.

Parameter	Decription/Resulting Action
Select	Check Select box to configure connected nodes in the same group.
Group ID	Displays the connected group ID information.
Group Name	Displays the group name. Click on selected Group Name to view the Group dashboard information and Gropu remote management functions.
Group Type	Displays the group type information.
Description	User can add description for selected group. When finish configuration, click Submit .

Create a Group

1. Click **Add**.
2. Define the new group name in the respective column.
3. Select Group type from the drop-down list.
4. When finish configuration, click **Submit**.

GIGABYTE™ System Manager Group Manager Alert Account Preference Help

Filter: Group List

Group Setting

Add Delete

Show 10 entries Search:

Select	Group ID	Group Name	Group Type	Description Setting
<input type="checkbox"/>	0001	TEST	Standard without CMM	<input type="text"/> Submit
<input type="checkbox"/>	0002	CMC-G450-BHD	Standard with CMM	<input type="text"/> Submit
<input type="checkbox"/>	0003	Multinode 1	Standard with CMM	<input type="text"/> Submit

Showing 1 to 3 of 3 entries

First Previous 1 Next Last

Group Name: TEST#

Group Type: OpenRackL0

Submit Close

Add

Show 10 entries Search:

Select	BMC MAC	BMC IP	Node Type
<input checked="" type="checkbox"/>	00:11:22:33:44:55	10.1.7.97	BMC
<input type="checkbox"/>	00:c0:a8:12:34:58	10.1.27.20	BMC
<input type="checkbox"/>	40:8d:5c:ba:a7:9a	10.1.27.21	BMC
<input type="checkbox"/>	40:8d:5c:ba:c9:1e	10.1.27.42	BMC
<input type="checkbox"/>	40:8d:5c:16:a5:08	10.1.27.62	BMC
<input type="checkbox"/>	40:8d:5c:ba:a7:86	10.1.27.65	BMC
<input type="checkbox"/>	40:8d:5c:ba:c0:48	10.1.27.80	BMC
<input type="checkbox"/>	74:d4:35:6a:90:59	10.1.27.83	BMC
<input type="checkbox"/>	1c:1b:0d:68:7b:d8	10.1.27.95	BMC
<input type="checkbox"/>	40:8d:5c:b1:ee:80	10.1.27.96	BMC

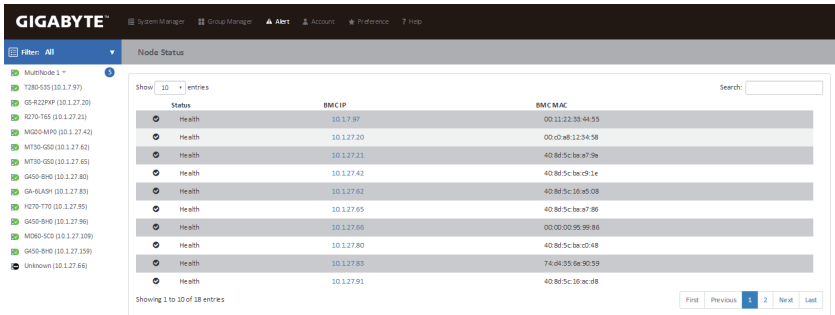
Showing 1 to 10 of 12 entries

Previous 1 2 Next

Submit Close

2-2-3 Alert

Alert page shows you data related to the sensor's health, such as sensor reading.



The screenshot displays the 'Alert' page in the Gigabyte Server Management interface. The top navigation bar includes 'System Manager', 'Group Manager', 'Alert', 'Account', 'Preference', and 'Help'. The main content area is titled 'Node Status' and features a filter dropdown set to 'All'. On the left, a list of nodes is shown with their model numbers and BMC IP addresses. The main table displays the status of each node, along with its BMC IP and BMC MAC address. The table is paginated, showing 1 to 18 of 18 entries.

Status	BMC IP	BMC MAC
Health	10.1.7.97	00:11:22:33:44:55
Health	10.1.27.20	00:c5:a8:12:34:56
Health	10.1.27.21	40:8d:5c:ba:c9:1e
Health	10.1.27.42	40:8d:5c:ba:c9:1e
Health	10.1.27.82	40:8d:5c:16:a5:08
Health	10.1.27.65	40:8d:5c:ba:c9:1e
Health	10.1.27.66	00:00:00:00:00:00
Health	10.1.27.80	40:8d:5c:ba:c9:1e
Health	10.1.27.83	74:64:25:0e:9c:39
Health	10.1.27.91	40:8d:5c:16:a5:08

Showing 1 to 18 of 18 entries

First Previous 1 2 Next Last

2-2-4 Account

This page provides to create a specific user. Following the steps below to create a new account.

1. Click **Add** and define the **User Name** and **Password**.
2. Define **Enable** function.
3. Select Privileges **Level**.
4. When you finish configuration, click **Submit**.

User Privileges			
Add Delete			
Select	Enable	User Name	Level
	true	admin	ROLE_ADMIN

Showing 1 to 1 of 1 entries

Previous 1 Next

Add Member

User Name	Password
<input type="text"/>	<input type="text"/>
Enable	Level
<input checked="" type="radio"/> true <input type="radio"/> false	<input type="text" value="ROLE_ADMIN"/>

Privilege Level	
ROLE_USER	This may be considered the lowest privilege level.
ROLE_ADMIN	All BMC commands are allowed, including configuration commands. An Administrator can even execute configuration commands that would disable the channel that the Administrator is communicating over.

2-2-5 Preference

Preference displays the database usage and IP range configuration for remote node or group system.

	Start IP	End IP	Scan Type	Policy Name
<input type="checkbox"/>	10.1.27.91	10.1.27.91	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	New
<input type="checkbox"/>	10.1.27.159	10.1.27.163	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	New
<input type="checkbox"/>	10.1.7.100	10.1.7.100	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	New
<input type="checkbox"/>	10.1.27.1	10.1.27.100	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	New
<input type="checkbox"/>	10.1.7.226	10.1.7.226	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	New
<input type="checkbox"/>	10.1.27.109	10.1.27.109	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	New
<input type="checkbox"/>	10.1.7.97	10.1.7.97	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	New
<input type="checkbox"/>	10.1.27.153	10.1.27.153	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	New

2-2-5-1 IP Range

User can specify the IP range that is scanned during the normal discovery run. Follow steps outlined below to configure IP discover.

1. Click **Create row** to specify the IP range in the respective columns.
2. Enter Start IP and End IP in the respective columns.
3. Select **Scan Type** and define the **Policy Name**.
4. When you finish the configuration, click **Submit** to save your configuration.

▼ IP Range

IP Range Setting

Delete	Start IP	End IP	Scan Type	Policy Name
<input type="checkbox"/>	10.1.27.91	10.1.27.91	<input checked="" type="checkbox"/> BMC <input type="checkbox"/> RMC <input type="checkbox"/> CMC	<input type="text" value="New"/>
<input type="checkbox"/>	10.1.27.159	10.1.27.163	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	<input type="text" value="New"/>
<input type="checkbox"/>	10.1.27.1	10.1.27.100	<input checked="" type="checkbox"/> BMC <input type="checkbox"/> RMC <input type="checkbox"/> CMC	<input type="text" value="New"/>
<input type="checkbox"/>	10.1.27.109	10.1.27.109	<input checked="" type="checkbox"/> BMC <input type="checkbox"/> RMC <input type="checkbox"/> CMC	<input type="text" value="New"/>
<input type="checkbox"/>	10.1.7.97	10.1.7.97	<input checked="" type="checkbox"/> BMC <input type="checkbox"/> RMC <input type="checkbox"/> CMC	<input type="text" value="New"/>
<input type="checkbox"/>	10.1.27.153	10.1.27.153	<input checked="" type="checkbox"/> BMC <input checked="" type="checkbox"/> RMC <input checked="" type="checkbox"/> CMC	<input type="text" value="New"/>

Scan Type	Description
BMC	Baseboard management controller, which gives a user or administrator the ability to control a remote system and the ability to perform a variety of functions. With BMC, data only transmitted in the local network area.
CMC	Chassis Management Controller, which provides function for managing multiple server chassis. CMC is higher level control and monitoring of one or multiple chassis.
RMC	Remote Management Controller. Similar with BMC, CMC provides LAN-based system console access as well as remote system management functions. RMC provides out-of-the-band functions and giving you complete access to your server from any location via a web browser.

2-2-5-2 Event Log

Event Log displays event log information for all nodes/systems within the defined IP range.

▼ Event Log

Clear Download

Show 10 entries Search:

Timestamp	Level	Description Setting
2016-12-01 10:30:39.717+08	1	[Gbt.backschedule.service.SystemInfoLowFrequencyObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:30:39.664+08	1	[Gbt.backschedule.service.SystemInfoHighFrequencyObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:30:25.993+08	1	[Gbt.backschedule.service.MonitorHighFrequencyObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:30:25.87+08	1	[Gbt.backschedule.service.PowerReadingObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:29:32.122+08	1	[Gbt.backschedule.service.NodeStatusObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:29:32.076+08	1	[Gbt.backschedule.service.PowerReadingObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:29:32.03+08	1	[Gbt.backschedule.service.MonitorHighFrequencyObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:29:31.984+08	1	[Gbt.backschedule.service.SystemInfoLowFrequencyObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:29:31.933+08	1	[Gbt.backschedule.service.SystemInfoHighFrequencyObserver] Delete node(fc:aa:14:7b:23:e6)
2016-12-01 10:29:31.117+08	1	Found new IPMI IP(with 10.1.27.21/40:8D-5C-8A-A7-9A/BMC)

Showing 1 to 10 of 100 entries

Previous 1 2 3 4 5 ... 10 Next

2-2-5-3 Alert Management

Alert Management the following configuration: **GSM SNMP Setting** and **IPv4 Destination** configuration, **SMTP Server** configuration, and **Send Mail** configuration for all nodes/systems within the defined IP range.

GSM SNMP

GSM SNMP trap configuration includes SNMP setting and SNMP destination configuration.

Alert Management

GSM SNMP

Setting

Alerting Enable OFF

Host Address 10.2.0.30

Alerting Level DEBUG

* Note: (The ordering of log levels is DEBUG < INFO < WARN < ERROR < FATAL).

Destination

IPv4 Destination	Enable	IPv4 Address
1	<input type="checkbox"/> OFF	0.0.0.0
2	<input type="checkbox"/> OFF	0.0.0.0
3	<input type="checkbox"/> OFF	0.0.0.0
4	<input type="checkbox"/> OFF	0.0.0.0

Submit

Parameter	Decription/Resulting Action
Alerting Enable	Determine whether the trap is sent by connected node.
Host address	Displays the host address information.
Alerting Level	Determine the alerting level from the drop-down list. Please refer to Section 3-1 Event Log for description of alerting level.

Destination

GSM SNMP Destination configuration for all nodes/systems within the defined IP range.

Setting SMTP Server

Server Host	Server Port	Account	Password	Email Address
Enable	Email Address	Event Level	Delete	
<input type="checkbox"/> OFF		DEBUG ▾	<input type="checkbox"/> OFF	
<input type="checkbox"/> OFF		DEBUG ▾	<input type="checkbox"/> OFF	
<input type="checkbox"/> OFF		DEBUG ▾	<input type="checkbox"/> OFF	

* Note: (The ordering of log levels is DEBUG < INFO < WARN < ERROR < FATAL).

Parameter	Decription/Resulting Action
Destination	
IPv4 Destination	User can configure 4 IPv4 Destination.
Enable	Select ON to configure IPv4 address
IPv4 Address	Enter specified IP address. When you finish the configuration, click Submit to to save your configuration.

Send Mail

If you want the alert to be sent by email, you can configure to specify the e-mail address, subject and message in this page. Follow steps outlined below to configure IP discover.

1. Enter the specific e-mail address.
2. Enter **Title** information.
3. Click **Send**.



The screenshot shows a web form titled "Send Mail". It contains three input fields: "To", "Title", and "Message". Each field is currently empty and has a grey background. At the bottom left of the form, there are two buttons: "Send" and "Cancel".


2-2-5-4 Database

Database shows DB location information, provide backup function, and update firmware for all nodes/systems within the defined IP range.

Database

Database usage

DB location: /



Usage space, 31.85GB / 53.04GB

Free space

Reservation

Backup

Backup current database and download it.

Backup Download

Update

Update database, please provide database backup file.

选择檔案 未選擇任何檔案 Update

2-2-5-5 Properties

Properties contains GSM TFTP server configuration for all nodes/systems within the defined IP range. Follow steps outlined below to configure TFTP server.

1. Select **ON** for use TFTP server on GSM.
2. Select **ON** for Enable configuration.
3. Define checking time. This ensures GSM clean data to make sure system has enough space to store data.
4. Define **Database** usage.
5. Define checking time. In each routine check, GSM will check log date
6. When you finish configuration, click **Submit**.

▼ Properties

Setting GSM TFTP server configuration

Use TFTP server on GSM

OFF

N/A

Note: If you want to use TFTP server on GSM, Please enter IP address of GSM server.

Enable configuration

ON

Check

GSM will clean data to make sure system has enough space to store data

Check system in each hour(s)

▼ Properties

Database

In each routine check, GSM will check database usage and data date

GSM will stop store data into database according with the setting

0% 10% 90% 100% %

Keep database data in day(s)

Log

In each routine check, GSM will check log date

Keep log file in day(s)

2-2-5-6 Update

User can update GSM firmware and reset system to default setting for all nodes/ systems within the defined IP range in this page.

To update, select the file on your local system using Browse.

1. Click **Update** to update to the new version of firmware.
2. To reset system to the factory default, click **Reset**.

The screenshot shows two sections of a web interface. The top section, titled 'Update', has a grey header with a dropdown arrow. Below it, a white box contains the text 'Current Version: GIGABYTE GSM Server v1.03'. There are two buttons: a blue one with Chinese text '選擇檔案 未選擇任何檔案' and a smaller blue one labeled 'Update'. The bottom section, titled 'SystemReset', has a pink header. It contains the text 'Reset to default' and a red button labeled 'Reset' next to the text 'SystemReset:'.

2-2-5-7 Language

User can select the preference language in this page.

The screenshot shows a section titled 'Languages' with a grey header and a dropdown arrow. Below it, a white box contains a language selection interface. It starts with a globe icon and the text 'Language'. Below that is a dropdown menu with the text 'Language' and a downward arrow.

2-2-6 Help

Help page provides the general information including License information, Hardware requirements, Software requirements and Operating System requirements.

User Menu Description

Current Version: GIGABYTE GSM Server v1.03

Menu

- System Manager
Lead you to node list page description.
- Group Manager
Lead you to group list page description.
- Alert
Lead you how to read alert information.
- Account
Lead you how to set personal values.
- Preference
Lead you to node status page description.

User Menu Description

[Hardware requirements]

- System Processor: 2 GHz and above
- System Memory: Minimum 4 GB RAM
- Free Disk Space: 1000 GB at least
- node servers: 255 maximum

[Software requirements]

- Browser Internet Explorer 9 or later

[Operating System]

- Windows 2008 & 2012 R2
- Redhat/CentOS 6.3 or later

User Menu Description

[Operating System]

- Windows 2008 & 2012 R2
- Redhat/CentOS 6.3 or later

License Detailed List

Apache Tomcat	Apache License 2.0
Ini4j	Apache License 2.0
Log4j	Apache License 2.0
Spring	Apache License 2.0
TFTP	Apache License 2.0
VXIPMI	GPL License
JFreeChart	LGPL license
Bootstrap	MIT License
Flot	MIT License
JQuery	MIT License
PostgreSQL	PostgreSQL License

Chapter 3 Appendix

3-1 Event Log List

SNMP ID	Event Level	Event Function	Event Description
D06F00	FATAL	DB	Database connection failed.
D06F01	ERROR	DB	Database connection denied.
D16F00	ERROR	Network Configuration	Get IPv4 configuration failed
D16F01	ERROR	Network Configuration	Set IPv4 configuration failed
D16F02	ERROR	Network Configuration	Get IPv6 configuration failed
D16F03	ERROR	Network Configuration	Set IPv6 configuration failed
D26F00	ERROR	Chassis Control	Power control failed
D26F01	ERROR	Chassis Control	Set chassis identify failed
D26F02	ERROR	Chassis Control	Get chassis status failed
D36F00	ERROR	Power Limit	Get power limit failed
D36F01	ERROR	Power Limit	Power limit configuration failed
D36F02	ERROR	Power Limit	Power limit configuration failed
D46F00	ERROR	Platform Event	Platform event log failed
D46F01	ERROR	Platform Event	Set platform event failed
D56F00	ERROR	Trap Destination	Get IPv4 destination failed
D56F01	ERROR	Trap Destination	Set IPv4 destination failed
D56F02	ERROR	Trap Destination	Get IPv4 activate status failed
D56F03	ERROR	Trap Destination	Set IPv4 activate status failed
D56F04	ERROR	Trap Destination	Get IPv6 destination failed
D56F05	ERROR	Trap Destination	Set IPv6 destination failed
D56F06	ERROR	Trap Destination	Get IPv6 activate status failed
D56F07	ERROR	Trap Destination	Set IPv6 activate status failed
D36F03	WARN	Group Power Limit	Policy already exist
D36F04	INFO	Group Power Limit	Add new policy
D36F05	INFO	Group Power Limit	Delete policy
D36F06	INFO	Group Power Limit	Group XXX: enable power limit
D36F07	INFO	Group Power Limit	Group XXX: reduce power limit to XXX
D36F08	INFO	Group Power Limit	Group XXX: disable power limit
D66F00	WARN	User Management	User account: XXX already exist
D66F01	INFO	User Management	Add new user account: XXX
D66F02	INFO	User Management	Delete user account: XXX
D76F00	INFO	System Reset	System reset success
D76F01	ERROR	System Reset	System reset failed, please wait a few minute
D86F00	INFO	Group Setting	Create group
D86F01	INFO	Group Setting	Delete group
D86F02	INFO	Group Setting	Add group member
D86F03	INFO	Group Setting	Delete group member
D86F04	INFO	Group Setting	Rename group

D96F00	INFO	Background(GSM) : IP Discover	Found new OpenRack1.0 RMC IP(with ip)
D96F01	INFO	Background(GSM) : IP Discover	Found new IPMI IP(with ip/mac/type)
D96F02	INFO	Background(GSM) : Node Status	Add node(with mac information)
D96F03	INFO	Background(GSM) : Node Status	Start monitor after a random time has expired
D96F04	INFO	Background(GSM) : Node Status	Delete node(with mac information)
D96F05	INFO	Background(GSM) : Monitor high frequency	Add node(with mac information)
D96F06	INFO	Background(GSM) : Monitor high frequency	Start monitor after a random time has expired
D96F07	INFO	Background(GSM) : Monitor high frequency	Delete node(with mac information)
D96F08	INFO	Background(GSM) : System info high frequency	Add node(with mac information)
D96F09	INFO	Background(GSM) : System info high frequency	Start monitor after a random time has expired
D96F0A	INFO	Background(GSM) : System info high frequency	Delete node(with mac information)
D96F0B	INFO	Background(GSM) : System info low frequency	Add node(with mac information)
D96F0C	INFO	Background(GSM) : System info low frequency	Start monitor after a random time has expired
D96F0D	INFO	Background(GSM) : System info low frequency	Delete node(with mac information)
D96F0E	INFO	Background(GSM) : Power reading	Add node(with mac information)
D96F0F	INFO	Background(GSM) : Power reading	Start monitor after a random time has expired
D96F10	INFO	Background(GSM) : Power reading	Delete node(with mac information)
DA6F00	WARN	Background(Each node) : Node Status	Node disconnect, terminate all service process

DA6F01	WARN	Background(Each node) : Node Status	IPMI damage retry count
DA6F02	ERROR	Background(Each node) : Node Status	IPMI damage, terminate all service process except node status itself
DA6F03	INFO	Background(Each node) : Node Status	Node have been terminate
DA6F04	ERROR	Background(Each node) : Monitor high frequency	Send command exception(Could be raw command fail or sql command fail)
DA6F05	INFO	Background(Each node) : Monitor high frequency	Node have been terminate
DA6F06	ERROR	Background(Each node) : System info high frequency	Exception information(get free port fail)
DA6F07	WARN	Background(Each node) : System info high frequency	Node management status is true/false
DA6F08	INFO	Background(Each node) : System info high frequency	Node have been terminate
DA6F09	ERROR	Background(Each node) : System info low frequency	Get FRU fail
DA6F0A	ERROR	Background(Each node) : System info low frequency	Get SDR fail
DA6F0B	ERROR	Background(Each node) : System info low frequency	Get 3 Net MAC fail
DA6F0C	ERROR	Background(Each node) : System info low frequency	Get SMBIOS info fail
DA6F0D	INFO	Background(Each node) : System info low frequency	Node have been terminate
DA6F09	ERROR	Background(Each node) : System info low frequency	Get FRU fail
DA6F0A	ERROR	Background(Each node) : System info low frequency	Get SDR fail
DA6F0B	ERROR	Background(Each node) : System info low frequency	Get 3 Net MAC fail

DA6F0C	ERROR	Background(Each node) : System info low frequency	Get SMBIOS info fail
DA6F0D	INFO	Background(Each node) : System info low frequency	Node have been terminate
DC6F03	ERROR	Node BMC Update	No compatible image, end process
DC6F04	ERROR	Node BMC Update	Cannot connect to TFTP server, end process
DC6F05	ERROR	Node BMC Update	Update BMC fail:[message]
DD6F00	INFO	Node BIOS Update	Start update BIOS
DD6F01	INFO	Node BIOS Update	Update BIOS success
DD6F02	WARN	Node BIOS Update	Node is busy, end process
DD6F03	ERROR	Node BIOS Update	No compatible image, end process
DD6F04	ERROR	Node BIOS Update	Cannot connect to TFTP server, end process
DD6F05	ERROR	Node BIOS Update	Update BIOS fail:[message]
DE6F00	INFO	Get Node SEL	Getting node SEL
DE6F01	INFO	Get Node SEL	Get node SEL complete
DE6F02	WARN	Get Node SEL	Cannot find SEL record
DE6F03	INFO	Clear Node SEL	Clearing node SEL
DE6F04	INFO	Clear Node SEL	Clear node SEL complete
DE6F05	INFO	Dump Node SEL	Starting to dump node SEL file
DE6F06	INFO	Dump Node SEL	Dump node SEL complete