

lenovo

ThinkServer RD230 and RD240
Remote Management User Guide



ThinkThink**ThinkServer**Think



ThinkServer RD230 and RD240 Remote Management User Guide

Note:

Before using this information and the product it supports, be sure to read and understand the following:

- The *Important Notices* that came with your product
- The *Safety Information* and the *Warranty and Support Information* on the *ThinkServer Documentation DVD* that came with your product

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Chapter 1. Introduction

Thank you for ordering and using the ThinkServer® Remote Management Module, hereinafter referred to as the Remote Management Module.

The User Guide describes how to use the Remote Management Module, the overview of the module features and how to set up and operate the module.

The User Guide is for system administrators responsible for installation, troubleshooting, upgrade and maintenance of the Remote Management Module. As a system administrator, once you are familiar with the Guide you can use Remote Management Module to access remotely from any location to respond for emergency.

Terminology

The following table lists the terms used in this document and its corresponding descriptions.

Abbreviation	Definition
BMC	System Board Management Controller
DHCP	Dynamic Host Configuration Protocol
IPMI	Intelligent Platform Management Interface
KVM	Keyboard, video and mouse
MAC	Media Access Controller
TCP/IP	Transfer Control Protocol/Internet Protocol

Safety information

With reference to either the Guide or other documents, you should always pay particular attention to safety information before operating the ThinkServer. To ensure full compliance with the existing certification and licensing, you must follow the installation instructions in the Guide.



Warning:

- **Power on / off:** The power button can not cut off system power or Remote Management Module power. To cut off the power of Remote Management Module, you must disconnect the AC power cord from the power outlet. When opening the chassis to install or remove the parts, you should make sure the AC power cord has been disconnected.
- **Dangerous situations, equipment and cables:** Power, telephones and signal cables may have the danger of electric shock. Before opening the device, shut down the server, disconnected the power cord, the communication system, network and modem connected to the server. Otherwise, it may result in personal injury or equipment damage.
- **Electrostatic Discharge (ESD) and ESD protection:** Electrostatic Discharge (ESD) can damage disk drivers, system board and other components. We recommend that you complete all the steps in this Section only in the ESD protective workstations. If ESD workstation is unavailable, wear anti-static wrist strap while holding parts and connect the wrist strap to the ground wire (that is, any unpainted metal surface) of the server chassis to provide ESD protection.

- **ESD and holding system boards:** Be careful when holding the system board. They are extremely sensitive to ESD. Only touch the edge when holding the system board. Lay the system board with components side facing upwards after taking the system board out of the protection bag or the sever. Use the conductive foam pad (if any) rather than the system board package. Do not slide the system board on any surface.
- **Installing or removing jumper:** Jumper is a small plastic conductor between two jumper pins. Some jumpers have a small wing on the top for you to use fingertips or fine needle forceps to clip it. If the jumper has no such wing, be careful when installing or removing it with needle forceps, and clip the jumper's narrow face instead of the wide one. Clipping the wide face will damage the contacts inside the jumper, which will lead to intermittent faults to some functions controlled by the jumper. Clip the jumper carefully with pliers or other tools and do not squeeze when removing it. Otherwise, pins on the system board may be bent or broken.

Chapter 2. Overview of the ThinkServer Remote Management Module

This section briefly describes the features of the Remote Management Module.

The Remote Management Module runs on the server system as an integrated solution and integrates the embedded operating system. Independent of the server operating system, the embedded operating system can provide a whole set of complete, stable and effective solution for the server. As a system administrator, you can respond anytime and anywhere to emergency failure and take remote control on the server through the network.

Features of ThinkServer Remote Management Module

ThinkServer Remote Management Module is easily accessible by remote KVM and controllable via LAN or Internet. It will digitize and compress the collected video signal, keyboard, mouse signals and then send to the remote console. Embedded with remote access and related control software, the module also allows integrated remote power management via IPMI. Key features of the Remote Management Module are as follows:

- Embedded Web UI - remote power on / off, system health, system information, alert notification and event log
- USB 2.0 media redirection - boot from remote media
- Security - open source SSL
- Compatible with IPMI V2.0
- KVM - allow remote viewing and configuring in the POST and BIOS setup utility

Chapter 3. Configuring the ThinkServer Remote Management Module

This chapter describes how to use the Setup Utility program to configure the ThinkServer Remote Management Module from the un-configured status to the running status. When you install the module into your server for the first time, the module by default will search DHCP server on the network to automatically assign the IP address, subnet mask, and gateway. It is recommended that you manually set a static IP address in the Setup Utility program.

To set an IP address, do the following:

1. Connect the server to a working electrical outlet and turn on the server by pressing the power button.
2. Press Del as soon as you see the logo screen. The Setup Utility program opens. If you have set an administrator password, you must type the administrator password to access the full Setup Utility program menu. When working with the Setup Utility program, you must use the keyboard. The keys used to perform various tasks are displayed at the bottom of each screen.
3. From the main menu, select **Advanced** → **IPMI 2.0 Configuration** → **Set LAN Configuration** → **Setup LAN Configuration**. Refer to Table 1 “Setup LAN Configuration subitems” on page 5 for information about the subitems.
4. From the **IP Address Source** option, you can choose **STATIC** or **DHCP** to set the IP address. It is recommended that you manually set a static IP address.
5. When you finish the configuration, select **Save LAN Configuration** to save the settings.

Table 1. Setup LAN Configuration subitems

Setup LAN Configuration	IP Address Source	Options: STATIC / DHCP	Static: Static IP configuration. IP and the subnet mask can be set manually. DHCP: Dynamic IP configuration. The system can automatically obtain IP address.
	Save LAN Configuration		When you finish setting the IP address, select this option to save the settings.

Chapter 4. ThinkServer Remote Management quick start

This section describes how to quickly acquaint with related operations of the Remote Management Module. In addition, it also describes the advanced features of how to log in the module and options available while browsing, and how to log out.

Prestart

The Remote Management Module has an embedded Web server and an application with multiple standard interfaces. This section describes these interfaces and their usages. You can use the TCP / IP protocol to access these interfaces.

Note: As the supported functions of the product vary with configurations, refer to the actual product description.

For more information about the initial settings, see Chapter 3 “Configuring the ThinkServer Remote Management Module” on page 5. The user name in this Section is “root”. Besides “root”, other usernames and passwords are also accepted. The default user name and password are as follows:

- Username = root
- Password = superuser

The Remote Management Module is accessible through the standard Java™-enabled Web browser with HTTP and HTTPS.

HTTP / HTTPS: The embedded Web server provides full access permission. You can access the Remote Management Module via encrypted HTTPS protocol or HTTP protocol. When accessing through the HTTP protocol, note that:

- With access to ThinkServer Remote Management Module via the HTTPS protocol, the browser may prompt you to trust and install the security digital certification, and you just follow the prompts to import and confirm the certification.
- In IE6 on Windows 2003 operating system, if using HTTPS protocol to access the Remote Management Module, you need to uncheck **Internet Explorer Enhanced Security Configuration** item in the **Control Panel → Add / Remove Windows Components**.
- In IE7 on the Windows 2008 operating system, if using HTTPS protocol to access the Remote Management Module, you need to click **Start → Administrative Tools → Server Manager → Security Information → IE Enhanced Security Configuration**, and then select **Off** and click **OK**.

For making the remote console (KVM) window of the managed server works, you must install Java runtime environment (JRE) V6.0 Update 13 or higher.

Note: The switch must support 10M/100M/1000M adaptive.

Log in

For logging in ThinkServer Remote Management Module, adhere to the following steps:

Step 1. Input the IP address assigned by the ThinkServer Remote Management Module into the Web browser.

For example:

http://10.223.131.36/

To use a secure connection, type in as the following example:

https://10.223.131.36/

Browser will then be directed to the login page of Remote Management Module.

Step 2. Enter the user name and password.

For example:

- Username = root
- Password = superuser

Note: The user name and password are case sensitive.

Step 3. Click the **Login** button to view the home page of the Remote Management Module.

After a successful initial login, the system administrator can create new users and has full permission of Remote Management Module.

Navigation

When the ThinkServer Remote Management Module is successfully logged on, the ThinkServer Remote Management Module home page will appear.

There are seven tabs on the horizontal toolbar which is on the top of the ThinkServer Remote Management Module home page. By clicking these tabs, you can get the specific system information and take the relevant tasks listed in the following table:

Tab	Features
System Information	By clicking this tab, you can access the general information related to the server. System Information page will automatically show in general, this tab allows accessing the following items: <ul style="list-style-type: none">• System Information
Server Health	By clicking this tab, you can access the sensor and event log. Sensor Readings page will automatically show. In general, this tab allows accessing the following items: <ul style="list-style-type: none">• Sensor Readings• Event Log

Tab	Features
Configuration	<p>By clicking this tab, you can configure various settings of the server. Network Configuration page will automatically show in general, this tab allows accessing the following items:</p> <ul style="list-style-type: none"> • Alerts • Mouse Mode • Network • SMTP • Users • BMC Sensor • Date/Time and NTP Server Setting • SSL Certificate
Remote Control	<p>By clicking this tab, you can access the remote console and control the power status of the server. In general, this tab allows accessing the following items:</p> <ul style="list-style-type: none"> • Console Redirection • Server Power Control • Other Control
Maintenance	<p>By clicking this tab, you can enter maintain mode. Under this mode, you can update the firmware. In general, this tab allows accessing the following items:</p> <ul style="list-style-type: none"> • Enter Update Mode
Group Control	<p>By clicking this tab, control several BMCs at the same time can be realized. You can add host into the BMC control group.</p>
Languages	<p>By clicking this tab, you can select the needed language. The languages provided at present are Chinese and English.</p>

The four tabs on the horizontal menu enable you to browse in the Web console of the ThinkServer Remote Management Module. Each tab has one sub-menu (on the left side of the browser). For more information about the specific features of items in the sub-menu, see Chapter 6 “ThinkServer Remote Management Module Web console options” on page 15.

The horizontal toolbar on the top of the home page and the left pane on the browser have the following buttons: **HELP**, **Refresh Page** and **Logout**. By clicking these buttons, you can take the relevant tasks listed in the following table.

Button	Features
HELP	<p>By clicking this button, you can view the brief description about current page on the right pane of the browser. By clicking the “X” on the top right of the pane, you can close the help pane.</p>
Refresh Page	<p>By clicking this button, you can refresh the current Web page, including all the data shown on the page.</p>

Button	Features
Logout	By clicking this button, you can terminate the current Web console session. Note: If the Remote Console (KVM) window is active, it will close automatically when logging out. After logging out, the Web console will be back to the login screen.

Online help

In Web console user interface, specific online help is provided for each page. More information about a certain topic or options, click **HELP** to view the online help. The help panel on the right can only be viewed when the online help is available.

Log out ThinkServer Remote Management Module

By clicking **Logout**, you can log out the current user, and back to the login page.

Note: Automatic Timeout: If the Web console detects no user activity within 15 minutes, the current session will be automatically terminated. If the user has opened the KVM remote console window, then the Web session will not automatically timeout. After the automatic timeout happens, if the user tries to take the next operation, the system will inform the user that logon again is needed if he wants to continue to access the Web console.

Chapter 5. Remote console (KVM) operation

The remote console is the redirection screen, keyboard and mouse of the remote host system (the ThinkServer Remote Management Module has been installed on it). If there is a need to use the remote console of the managed host system, make sure that the server has Java* runtime environment plug-in.

When the remote console is started, a new window will be opened, showing the screen of the host system. Operating the remote console is just like an administrator is sitting on front of the screen of the remote system. This means that the user can use the keyboard and mouse as he usually does.

Note: Pay attention that if the host operation system is Windows 2003, set the display resolution under 1280*1024 (excluding).

Start redirection console

The remote console is the redirection keyboard, video and mouse of the remote host system (the ThinkServer Remote Management Module has been installed on it).

- Step 1. Click **Console Redirection** in this page to start the redirection window for remote console KVM.
- Step 2. By clicking **Java Console**, you can start the redirection console and carry out remote management for server.
- Step 3. A pop-up window will be shown and begin to download Java network boot protocol Jviewer.jnlp document after you click **Java Console**. And then, the Java applications for the implement of remote console will be downloaded.

Notes:

- Before the JNLP document is booted, Java Runtime Environment (JRE) V6.0 Update 13 or higher version must be set up on the client.
- The client browser must allow showing the pop-up windows from the IP address of ThinkServer Remote Management Module.

This remote console window is a Java Applet for creating the TCP connections to the ThinkServer Remote Management Module. The protocol over these connections is a unique KVM protocol, rather than HTTP or HTTPS. This protocol dedicated port for KVM is #7578, port #5120 for CD-ROM CD-ROM media redirection and port #5123 for floppy/USB media redirection. Your local network environment must allow creating these connections. That is to say, if you have a private intranet, the setups of firewall and Network Address Translation (NAT) must be configured accordingly.

Main window

When the remote console is started, the main window of remote console will appear.

The remote console shows the screen of the remote server. Operating the remote console is just like you are in front of the remote server. The response speed maybe a little delay, depending on the bandwidth and delay between the ThinkServer Remote Management Module and the remote console.

Menu bar of the remote console

There is a menu bar on the top of the remote console window. You can view the status of the remote console and configure the setup for locale remote console through the items on the menu bar.

The following section describes the features of each control.

Video menu of the remote console

By clicking the **Video** option on the control bar of the remote console, you can open the video menu of remote console. With this menu, you can take the following operations:

- **Start Redirection:** Resume the redirections of keyboard, video and mouse after suspend. The shortcut key is Alt+S.
- **Stop Redirection:** Pause the redirections of keyboard, video and mouse, and then the remote console window will pause the currently updating process. The shortcut key is Alt+T.
- **Restart:** Restart the redirection. The shortcut key is Alt+R.
- **Full Screen:** Switch between the window mode and full screen of the remote console.
- **Exit:** Close the remote console.

Keyboard menu of the remote console

By clicking **Keyboard**, you can open the keyboard menu containing relevant task options. With this menu, you can take the following operations:

- **Hold Ctrl/Alt/Windows keys:** Allow simulating to press these special keys on the remote keyboard. On the local keyboard, these special keys will be carried out through local operating system, rather than transfer to remote operation system.
- **Alt+Ctrl+Del:** Issue Alt+Ctrl+Del command to remote operation system.

Note: When the remote operating system is Red Hat 5.3 and switch between the graphical interface and textual interface is carried out, select **Hold Left Ctrl Key + Hold Left Alt Key** to switch interface. This switch can be from graphical interface to textual interface, and then back to graphical interface. However, this operation can be done only once. If the textual interface is directly switched to graphical interface, then one more switch is not allowed. If you need to take the above operations again, you need to cancel the selected menu and then select again.

Mouse menu of the remote console

By clicking **Mouse**, you can open the mouse menu containing relevant task options. There is a option in the mouse sub-menu:

- **Sync Cursor:** This option is used for switching the cursor appearances in the remote console window. It will not have impact on the cursor in the remote system. The shortcut key is Alt+M.

Option menu of the remote console

By clicking **Options**, you can open the menu containing relevant task options. You can adjust the Video setting based on your needs.

Device menu of the remote console

Click **Device** to open the device menu which includes relevant task options. The menu options allow starting or stopping the remote media redirection.

- **Redirect CDROM/Redirect ISO:** This allows you to redirect the local CD-ROM/DVD Drivers or ISO images in the file system of local client to virtual CD-ROM devices in the remote systems.
- **Redirect Floppy/USB Key/Redirect Floppy/USB Key Image:** This allows you to redirect the local floppy driver, local USB Key Driver or the IMG files for floppy disk to the virtual floppy devices in the remote system.

These virtual devices can read, write (providing the property is not read only) and boot, which are similar with any other CD-ROMs or floppies in the remote system. But only when certain media redirections are active, these virtual devices are available in the remote operating system or BIOS setting menu. The setting is valid after remote system reset or it is power-on or power-off. These devices will not disappear from the remote system until the relevant check boxes in the remote console window are cleared.

Note: This kind of virtual devices are not limited to the normal size of floppy or CD-ROM. They can be as large as the redirecting devices or files. During the installation of remote operating system (the floppy drivers may be required), the USB Key Drivers can be redirected to the virtual floppy devices (rather than the USB devices) in order to allow loading the custom device drivers.

Status bar of the remote console

The status bar at the bottom of the remote console is used to indicate the status of the remote console. When browsing the menu options, this status bar will automatically show the details of all options.

Chapter 6. ThinkServer Remote Management Module Web console options

This section describes every page of Web console and each page is divided into several parts corresponding separately to the four tabs on the horizontal toolbar. In each part, there are detail illustrations and introductions to each menu option in the left menu.

Notes:

- The first menu item of each tab is default page which will automatically appear when selecting the corresponding tab.
- Click the **HELP** button on the right horizontal toolbar, and the Web console will show the relevant information of each page.

System information

By default, the home page of ThinkServer Remote Management Module shows the system information page including general information of the system. For more details, see the section below.

View System Information

The System Information page shows the summary of the general system information.

The System Information page provides the following server information:

Information	Description
Device Power Status	Indicate the device power status (On/Off). Note: This indicates the BMC status.
Firmware Revision	The revision of BMC Firmware.
AuxFirmware Revision	BMC AuxFirmware Revision.
Build Time	Date and time of building BMC Firmware.

Server Health

The Server Health page shows the data related to the server's health, such as sensor readings and event logs. Click the **Server Health** tab to show this page. By default, this tab will automatically open the sensor reading page.

View Sensor Readings

The Sensor Readings page shows the system sensor information including readings and status.

The table below lists the available options on this page:

Option	Task Description
The Sensor Selection drop-down list box	Used to select the types of sensor readings that are shown on the lists. The default setup is to show all sensors.
Sensor Readings list	Used to show the names, status and readings of the selected sensors.

Option	Task Description
Show Thresholds button	Click it to open the list and show the assigned value of the thresholds at the same time. From this, you can see CT, NC and NR value of the selected sensor. You can move the display window from left to right by the scroll bar at the bottom of the page.
Hide Thresholds button	Click it and back to the initial screen and hide thresholds at the same time.
Refresh	Click it to refresh the selected sensor readings.

View Event Log

The Event Log page shows the event logs.

The figure below lists the available options on this page:

Option	Task Description
Event Log Category drop-down list	Used to select the event log categories shown on the list.
Event Log list	Used to show the names, status and readings of the selected sensors. It includes a list of events with ID, timestamp, sensor name, sensor type and description.
Clear Event Log button	Click it to clear the event log.

Configuration of settings

The Configuration page is used to configure network, users and alerts.

The following server's management options are included:

- Alerts
- Mouse Mode
- Network
- SMTP
- Users
- BMC Sensor
- Date/Time and NTP Server Setting
- SSL Certificate

Alerts

You can use this function to modify or delete the alert settings, or send a test alert to the destination. The Alerts page lists all the configurable alerts including configured alerts setting which contain the alert level and destination address.

Step 1. If you need to modify the alert settings, you can select an alert and click **Modify** to configure it.

Step 2. Make settings to the available options on this page:

Option	Task Description
Alert Type drop-down menu	It is used to select the alert types shown on the list. Available options: SNMP Trap and e-mail.
Event Severity drop-down menu	It is used to select the alert severity shown on the list.
Destination IP	This option is only available when the Alert Type is SNMP Trap. And it is used to set the SNMP address of alert destination.
Email Address	This option is only available when the Alert Type is Email. And it is used to set the e-mail address of alert destination.
Subject	This option is only available when the Alert Type is Email. And it is used to set the e-mail subject of alert destination.
Message	This option is only available when the Alert Type is Email. And it is used to set the e-mail message of alert destination.

Step 3. After setting the alerts, click **Save** button to activate the settings and list them on the alert lists.

Configuration of Mouse Mode Setting

Step 1. Click **Mouse Mode** to open the Mouse Mode Setting window. The redirection console can use one of the methods mentioned below to set the mouse mode (from local windows to remote screens):

- **Absolute Mode:** Selecting the Absolute Mode will send the absolute position of local mouse to server. This mode is suitable for Windows operating system.
- **Relative Mode:** Selecting the Relative Mode will send the relative movement of local mouse to server. This mode is suitable for Linux operating system.

Step 2. Click **Save** to apply the selected mode.

Configuration of Network Settings

The Network Settings page is used to configure the network settings. It includes the following options:

- **Automatic (Obtain an IP address automatically):** Automatically obtain the IP address (use DHCP).
- **Manual (Use the following IP addresses):** Manually configure IP address.

The table below lists the available options on this page:

Option	Task Description
MAC Address	The MAC address of the devices (Read Only)
IP Address	Select the type of the IP address by radio button. If you want to configure the static IP, enter the requested address, subnet mask and gateway into the given fields. Notes: <ul style="list-style-type: none"> • The IP address is composed of four numbers and separated by period (.). For example, "xxx.xxx.xxx.xxx". • "xxx" falls in between 0 and 255. • The first "xxx" should not be 0.
Save button	Click it to save the changes.

Make SMTP Setting

This page is used to set the source address for sending SMTP e-mail.

Step 1. Enter the IP address for the SMTP mail server.

Step 2. Click **Save**.

User management

The User List page lists all users including configured users, with network permission. The options included in this page are used to configure the IPMI users for servers and their permissions.

To add a new user, select a blank row from list and click **Add User**.

To modify a user, select this user from list and click **Modify User** to modify the relevant settings.

To delete a user, select this user from list and click **Delete User**.

Note: The user lenovo and three can not be modified or deleted.

BMC sensor settings

In this page, you can select **Direct monitoring on I2C bus** to monitor BMC sensor mode directly from I2C bus and get the BMC sensor address, or select **External BMC monitoring** to manually set the BMC I2C bus address.

Note: It is recommended that users should not modify BMC sensor settings.

Date/Time and NTP Server Setting

This page can be used to set the internal real-time clock of Remote Management Module. You can manually adjust the clock or use the NTP clock server to set the internal clock of Remote Management Module in accordance with the system clock. Once the Remote Management Module powers down, you need to reset the clock. To avoid this problem, you can automatically set the internal clock to a NTP time server of the current UTC time.

Note: The NTP server configuration will be blank if IP auto configuration is configured through either BOOTP or DHCP in the Network settings, because the BOOTP or DHCP server does not provide the NTP server information.

Configure SSL Upload

This SSL Upload page can be used to upload SSL certificate and private key in order to get access to the device in safe mode.

Step 1. Select the required SSL certificate and click the **Upload** button.

Step 2. Then you will be prompted to confirm the certificate uploading. The system will give you notice after the success of uploading the certificate. After the SSL certificate is successfully uploaded, you will be prompted to reboot the system.

Remote Control

The Remote Control page allows you to execute the following remote operation on the server:

- Console Redirection
- Server Power Control

Console Redirection

The Console Redirection page will automatically select the Remote Console option by default. You can open remote console KVM redirection window from this page.

Click **Java Console** button to start the redirection console and remotely manage the server.

Note: Before you start JNLP file, the client must be installed with Java Runtime Environment (JRE) V6.0 Update 13 or higher.

Server Power Control

The Server Power Control page shows the server power status.

You can perform the following power control operations:

Option	Task Description
Reset Server	If the option is selected, you can hard reset the host with the power-off.
Power Off Server - Immediate	If the option is selected, the system can be turned off immediately.
Power Off Serve - Orderly Shutdown	If the option is selected, the system can save the settings and shut down.
Power On Server	If the option is selected, the server can be powered on.
Power Cycle Server	If the option is selected, the server can be powered off immediately and then powered on after a second.
Perform Action	Click and the system can perform the selected remote power command.
Note: All power control action can be performed by BMC and responded immediately. It is recommended to shut down the system through KVM interface or other interfaces before the initialization power action.	

Other Control

You can click the **Chassis Locate LED** button to control the status of the chassis ID light, including four control options: Off (extinguish immediately), 15 Seconds (extinguish after 15 seconds), 60 Seconds (extinguish after 60 seconds) and Always On (normally on). Select one of them, and then click the **Chassis Locate LED** button to perform the corresponding operation.

If you want to clear the CMOS, you can click **Clear CMOS** to perform the operation.

You can click **Lock Local Panel / Unlock Local Panel** to lock or unlock the local console for remotely controlling.

Maintenance

You can click the **Enter Update Mode** button to enter the maintenance mode in which you can update the firmware.

Note: Once you click the **Enter Update Mode** button and enter the maintenance mode, the remote server will reboot after exit the mode.

The firmware of Remote Management Module can be updated to add new features. The firmware update files can be sent to you through e-mail or downloaded through the Lenovo® Web site.

Warning: Firmware update is irreversible, and meanwhile it needs to spend a few minutes. In the procedure of updating, do not operate on the remote power.

To update the firmware, do the following:

- Step 1. Download the firmware update file.
- Step 2. Click the **Browse** button on the right side of the Upload page to select the corresponding FW file.
- Step 3. Click the **Upload** button, the firmware file will be sent to the Remote Management Module. During the uploading, the device will check the validity of the firmware file and whether the transmission error occurs. If any error is identified, the upload will be terminated.
- Step 4. If the upload is completed successfully, the update firmware window will display the currently running firmware version and the newly uploaded firmware version. Click the **Upload** button to update firmware.

Wait for a minute after firmware is updated and the browser login page is re-opened, enter the user name and password to log in again.

Group Control

This feature allows you to control multi-host BMC at same time. By clicking **Add Host**, you can add the host to the BMC control groups.

Languages

In this menu, you can select languages needed. The languages currently offered are Chinese and English.

Appendix A. FAQ

1. Q: Log on Remote Management Module failed.

A: Check your user name and password.

2. Q: Remote Management Module can not be connected.

A: Check the hardware (1). Whether the host on which the Remote Management Module resides is connected to power supply or not? (2). Check your network configuration (IP address, router, etc).

Appendix B. Notices

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