Areas Covered

Before Reading This Manual

This section explains the notes for your safety and conventions used in this manual.

Chapter 1 Overview of Remote Management Controller

This chapter explains an overview of the Remote Management Controller.
Please make sure to read these sections before using the Remote Management Controller.

Chapter 2 Preparation

This chapter explains preparation for using the Remote Management Controller.

Chapter 3 Starting and Exiting

This chapter explains how to start and exit the Web interface of the Remote Management Controller.

Chapter 4 Setting and Referencing User Information

This chapter explains the meaning and settings of each Web interface window of the Remote Management Controller.

Appendix

This chapter explains about the settings to use LDAP with the Remote Management Controller.

Before Reading This Manual

Remarks

■ Symbols

Symbols used in this manual have the following meanings:

IMPORTANT	These sections explain prohibited actions and points to note when using this software. Make sure to read these sections.
POINT	These sections explain information needed to operate the hardware and software properly. Make sure to read these sections.
→	This mark indicates reference pages or manuals.

■ Key Descriptions / Operations

Keys are represented throughout this manual in the following manner:

E.g.: [Ctrl] key, [Enter] key, [→] key, etc.

The following indicate the pressing of several keys at once:

E.g.: [Ctrl] + [F3] key, [Shift] + [↑] key, etc.

■ Consecutive Operations

Consecutive operations are described by connecting them with "–".

Example: For the operation to click the [Start] button, point to [All Programs], and click [Accessories]

↓

Click [Start] – [All Programs] – [Accessories].

■ CD/DVD Drive Descriptions

In this manual, both CD-ROM and DVD-ROM drives are described as a CD/DVD-ROM drive. Select a proper drive depending on your environment.

■ Entering Commands (Keys)

Command entries are written in the following way:

```
diskcopy  a:  a:
          ↑   ↑
```

- In the spaces indicated with the "↑" mark, press the [Space] key once.
- CD/DVD drive letter is shown as [CD/DVD drive]. Enter your drive letter according to your environment.
  [CD/DVD drive]:\setup.exe

■ Operations for Linux

The mount commands for CD/DVD drive and floppy disk drive differ depending on the version. Interpret "/mnt/cdrom/, /media/cdrom/ or /media/cdrecorder/" and "mnt or media/floppy" in this manual as follows depending on your Linux version.

- For RHEL-AS4(x86)/ES4(x86)/AS4(IPF)
  /media/cdrecorder, /media/floppy
- For RHEL5(x86)/RHEL5(Intel64)/RHEL-AS4(EM64T)/ES4(EM64T)
  /media/cdrom, /media/floppy

IMPORTANT

- For RHEL5(x86)/RHEL5(Intel64), perform the following procedure to mount drives.

```
# mkdir /media/cdrom
# mount /dev/cdrom /media/cdrom
or
# mkdir /media/floppy
# mount /dev/floppy /media/floppy
```

- For RHEL-AS3(x86)/AS3(IPF)/ES3(x86)
  /mnt/cdrom, /mnt/floppy

■ Screen Shots and Figures

Screen shots and figures are used as visual aids throughout this manual. Windows, screens, and file names may vary depending on the OS, software, or configuration of the server used. Figures in this manual may not show cables that are actually connected for convenience of explanation.

■ Abbreviations

The following expressions and abbreviations are used throughout this manual.

table: Abbreviations of Product Names

Product name	Expressions and abbreviations	
Microsoft® Windows Server® 2008, Standard Microsoft® Windows Server® 2008, Enterprise Microsoft® Windows Server® 2008, Datacenter Microsoft® Windows Server® 2008, Standard without Hyper-V™ Microsoft® Windows Server® 2008, Enterprise without Hyper-V™ Microsoft® Windows Server® 2008, Datacenter without Hyper-V™	Windows Server 2008 or Windows Server 2008 (64-bit)	Windows
Microsoft® Windows Server® 2003, Standard Edition Microsoft® Windows Server® 2003, Enterprise Edition Microsoft® Windows Server® 2003, Standard x64 Edition Microsoft® Windows Server® 2003, Enterprise x64 Edition Microsoft® Windows Server® 2003, Enterprise Edition for Itanium-based Systems Microsoft® Windows® Small Business Server 2003	Windows Server 2003	
Microsoft® Windows Server® 2003 R2 Standard Edition Microsoft® Windows Server® 2003 R2 Enterprise Edition Microsoft® Windows Server® 2003 R2 Standard x64 Edition Microsoft® Windows Server® 2003 R2 Enterprise x64 Edition Microsoft® Windows® Small Business Server 2003 R2 Microsoft® Windows® Storage Server 2003 R2, Standard Edition	Windows Server 2003 R2	
Microsoft® Windows® 2000 Server Microsoft® Windows® 2000 Advanced Server	Windows 2000 Server	
Microsoft® Windows® Server Network Operating System Version 4.0 Microsoft® Windows NT® Server, Enterprise Edition 4.0	Windows NT	
Microsoft® Windows® XP Professional	Windows XP	
Microsoft® Windows® 2000 Professional	Windows 2000	
Microsoft® Windows NT® Workstation Operating System 4.0	Windows NT 4.0	
Red Hat Enterprise Linux 5 (for x86)	Red Hat Linux	Linux
	RHEL5(x86)	
Red Hat Enterprise Linux 5 (for Intel64)	RHEL5(Intel64)	
Red Hat Enterprise Linux AS (v.4 for x86)	RHEL-AS4(x86)	
Red Hat Enterprise Linux ES (v.4 for x86)	RHEL-ES4(x86)	
Red Hat Enterprise Linux AS (v.4 for EM64T)	RHEL-AS4(EM64T)	
Red Hat Enterprise Linux ES (v.4 for EM64T)	RHEL-ES4(EM64T)	
Red Hat Enterprise Linux AS (v.3 for x86)	RHEL-AS3(x86)	
Red Hat Enterprise Linux AS (v.3 for Itanium)	RHEL-AS3(IPF)	
Red Hat Enterprise Linux ES (v.3 for x86)	RHEL-ES3(x86)	
SUSE® LINUX® Enterprise Server 9 for x86	SUSE Linux	
	SLES9(x86)	
Intel LANDesk® Server Manager	LDSM	

table: Abbreviations of Product Names

Product name	Expressions and abbreviations
Remote Service Board (PG-RSB102/PG-RSB103/PG-RSB104/PG-RSB105)	Remote Service Board

■ About the Server Core Installation Option

The environment in which the Windows Server 2008 operating system is installed by the Server Core installation option is written as Server Core in this manual.

Reference Information

■ Supported OS Associated with Machine Types

Some OS described in this manual may not be supported depending on machine types. Please confirm the supported OS for your server in the manuals supplied with each server.

■ Latest Information about ServerView

For the latest information regarding ServerView, refer to the Fujitsu PRIMERGY website (http://primergy.fujitsu.com).

■ Trademarks

Contents

Appendix

Chapter 1

Overview of Remote Management Controller

This chapter explains an overview of the Remote Management Controller.

1.1 Remote Management Controller

The Remote Management Controller adds the Remote Service Board (RSB) function to the Baseboard Management Controller (BMC) on the baseboard (On Board). It enables status confirmation and setting of a remotely located server, and also power control.
This section describes the Web interface to access the Remote Management Controller from remote locations and to operate it.

1.1.1 Supported Models and Functions

● Models Supported by the Remote Management Controller

The Remote Management Controller has normal iRMC and iRMC S2. iRMC S2 has extended Pre-failure Detection Analysis (PDA) functions for memory and CPU. iRMC and iRMC S2 support IPMI 2.0, and each is installed on the different server.

● Web Interface Functions of the Remote Management Controller

The Web interface of the Remote Management Controller has the following functions:

- Display system information→"4.1 System Information" (pg.26)
- Control server (restart, power on/off)→"4.3 Power Management" (pg.35)
- Display sensor status (fan, temperature, voltage, power supply)→"4.5 Sensors" (pg.44)
- Display log→"4.6 System Event Log" (pg.53)
- Display and set server control information→"4.7 Server Management Information" (pg.56)
- Set up network→"4.8 Network Settings" (pg.58)
- Send alert→"4.9 Alerting" (pg.64)
- Display and set user information→"4.10 User Management" (pg.67)
- Video Redirection and Remote Storage Connection →"4.11 Console Redirection" (pg.74)

IMPORTANT

- The Remote Management Controller is a part of the Baseboard Management Controller (BMC) on the baseboard and is displayed as [iRMC]/[iRMC S2].
  In this manual, [iRMC] refers to the functions supported in both iRMC and iRMC S2, and [iRMC S2] refers to the functions supported only in iRMC S2. For the functions supported after the particular version are referred as ([Vx.xxA] or later).
- A separate license key (option) is necessary to use the Video Redirection function and the Remote Storage connection.
- The windows and descriptions may not be displayed depending on models, configurations, and versions.

1.2 Notes

This section explains points to consider utilizing the Remote Management Controller.

■ Security

The Remote Management Controller handles personal information, such as the administrator's name, and other important information. If you set up the server in a domain that is accessible from outside, take care of the security so that the specified information is inaccessible from outside and minimize the contents to be set.

■ Other Notes

- The Remote Management Controller is a part of the hardware (server). The Web interface is displayed in English.
- Java™ 2 Runtime Environment Standard Edition V1.4.2_10 or later version of JRE is required.

  However, if you use Java™ 2 Runtime Environment Standard Edition V1.6.0 or later version of JRE, iRMC V1.66A or later version of iRMC is required.

  Video Redirection does not work if you use Java™ 2 Runtime Environment Standard Edition V1.6.0 or later version for the iRMC which is V1.66A or earlier.
- An individual IP address is required to access the Remote Management Controller (or DHCP may be used).
- The LAN port for connecting to the Remote Management Controller is fixed for each model. Refer to "User's Guide" supplied with the server and connect to the correct LAN port.
- For controlling by the serial connection, refer to "User's Guide" supplied with the server.
- The following connection methods and configuration are not supported.
  - Serial/Modem Alerting function
  - Remote manager connection with the operating Shell set to "SMASH CLP/CLI" or operation when the Shell is set to "SMASH CLP/CLI" during remote manager connection
- Only following browsers are supported when using the Web interface of the Remote Management Controller.
  - Windows
    Microsoft Internet Explorer 6.0 or later
  - Linux
    Mozilla FireFox

IMPORTANT

- Mozilla FireFox V1.5.0.7 or later version is supported in iRMC V1.66A or later. To access to iRMC which is earlier than V1.66A, use Mozilla FireFox V1.5.0.6 or earlier.
- When you try to access to iRMC by Microsoft Internet Explorer 7, you may be required to log in several times. In the case, use the patch from the following website.
  http://support.microsoft.com/kb/904942/en-us

Chapter 2
Preparation

This chapter explains preparation for using the Remote Management Controller.

2.1 Preparation

An IP address, a user name and a password must be set to access the Web interface and a remote manager of the Remote Management Controller.

2.1.1 Setting IP Address

Setting an IP address is required because DHCP is "Disabled" by default.
To set the IP address manually, use the Server Management Tools (IPMIview), Web interface, or the BIOS setup utility.

POINT

- To check the current IP address, use the Server Management Tools (IPMIview).
  For the initial setup of the products which are not provided with the Server Management Tools (IPMIview), use the BIOS setup utility.

2.1.2 Setting User Name and Password

The following user name and password are provided to access the Remote Management Controller by default.

table: Default User Name and Password

User name	Password	Access level/Operating shell type
admin	admin	OEM / RemoteManager

Use the Web interface (→"4.10.1 User Management" (pg.67)) or the Server Management Tools (IPMIview) to set the user name and password manually.

POINT

- You can use the Server Management Tools (IPMIview) to check the current user name and password.
  For the products which are not provided with the Server Management Tools (IPMIview), use the Web interface.

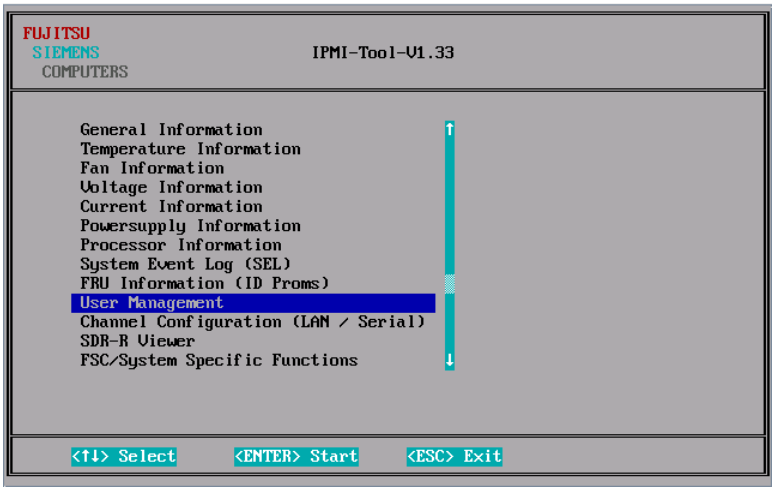
■ Configuration using Server Management Tools (IPMIview)

This section describes how to configure an IP address, a user name and a password using the Server Management Tools (IPMIview).

1. Insert Server Management Tools disk and start the server.
2. Execute the following command to start IPMIVIEW.

```
>ipmiview.exe
```

3 Select the desired menu from the IPMIVIEW menu.



IP address settings for iRMC

1. Select [Channel Configuration (LAN / Serial)] from the menu.
2. Select [2 802.3_LAN] from the menu.
3. Press the [F1] key (General Settings).
4. Configure each item.
   Set IPAddressSource to 3.
5. Press the [F1] key (SetValues) to save the settings and close the window.

User name and the password settings for iRMC

1. Select [User Management] from the menu.
2. Select a user name to modify from the user list, or an unused number to add a user.
3. Set the user name, password, and authorization.
4. Press the [F1] key (SetValues) to save the settings.
5. Press the [F2] key and/or the [F3] key to set authorization.
6. Press the [F1] key (SetValues) to save the settings and close the window.

IMPORTANT

- Neither the [F2] key nor the [F3] key may work when the version of IPMIVIEW does not correspond to iRMC. In this case, use the Web interface (login with default admin) to configure.

4 Press the [Esc] key to exit the IPMIVIEW.

2.2 Communication Protocol of Remote Management Controller

Communication protocols and ports, which the Remote Management Controller uses, and their communication direction are shown below.

table: Communication Protocol and Port, which Remote Management Controller Uses, and Direction

Remote side [Note 1]	Communication direction	Remote Management Controller (iRMC, iRMC S2) side (port number / protocol)
HTTP port	→	(80/TCP)
	←	(80/TCP) ACK etc.
HTTPS port	→	(443/TCP)
	←	(443/TCP) ACK etc.
Telnet	→	(3172/TCP)
	←	(3172/TCP) ACK etc.
SSH	→	(22/TCP)
	←	(22/TCP) ACK etc.
Trap	→	(162/UCP)
Email	→	(25/TCP)
	←	(25/TCP) ACK etc.
Remote Storage	→	(5901/TCP)
	←	(5901/TCP) ACK etc.
VNC Ports (HTTP/HTTPS ports are used on iRMC S2. The following applies to iRMC only.)		
Standard port	→	(5900/TCP)
	←	(5900/TCP) ACK etc.
Secure port	→	(5910/TCP)
	←	(5910/TCP) ACK etc.

[Note 1]: "outPort" is used on all remote sides.

Chapter 3

Starting and Exiting

This chapter explains how to start and exit the Web interface of the Remote Management Controller.

3.1 Starting Web Interface

This section explains how to start the Web interface of the Remote Management Controller.

POINT

- The Web interface of the Remote Management Controller uses Java or JavaScript. Set the Web browser to use Java or JavaScript.
- When accessing the server's Remote Management Controller Web interface from the OS of the server itself, if the LAN port for iRMC is shared with the LAN port for the OS, disable the LAN port for the OS.
- The screen shots of "iRMC S2" are used to explain the procedures.
  It is somewhat different to the screen shots of "iRMC". Interpret iRMC S2 which is displayed as iRMC.
  The functions which are supported only for iRMC, are indicated as "iRMC only".

A Web browser is used to start the Web interface of the Remote Management Controller.

1 Start the Web browser.

2 Enter the following in the address field of the Web browser.

When using http

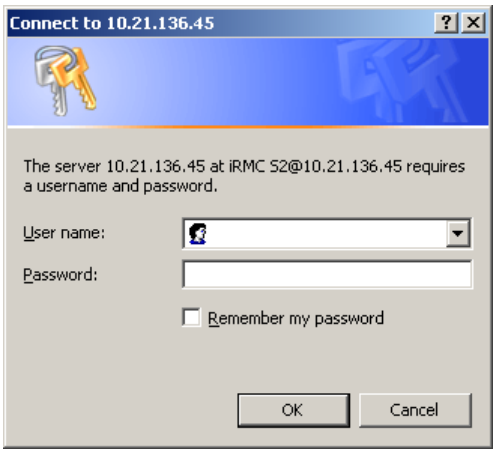
http://<IP address of the Remote Management Controller>:<Port number (default is 80)>

When using https

https://<IP address of the Remote Management Controller>:<Port number (default is 443)>

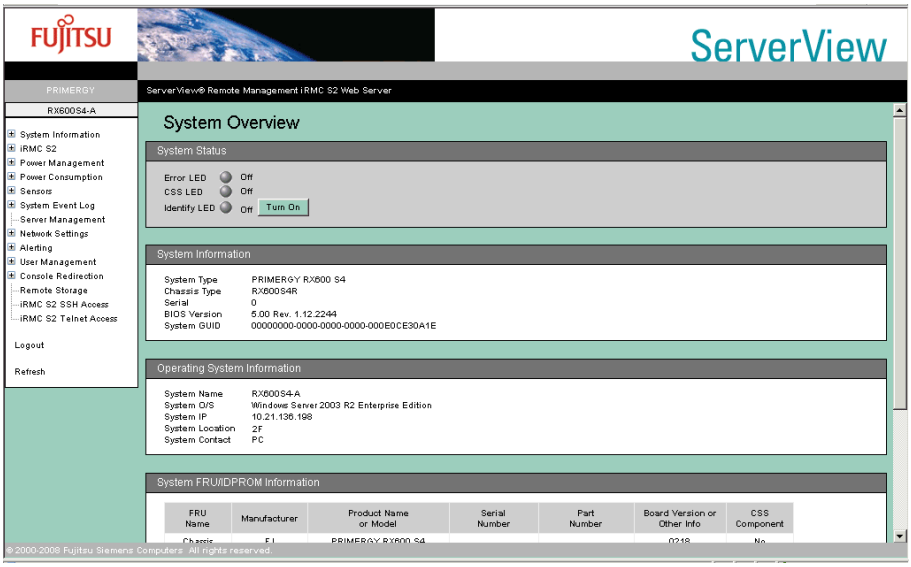
3 Press the [Enter] key.

The network password window appears.



4 Enter the user name and password set for the Remote Management Controller and click [OK].

The Web interface main window appears.



POINT

- You can also start the Remote Management Controller Web Interface from [Remote Manager] window of the ServerView S2.

3.2 Operating Web Interface

This section explains how to display setting windows and how to set.

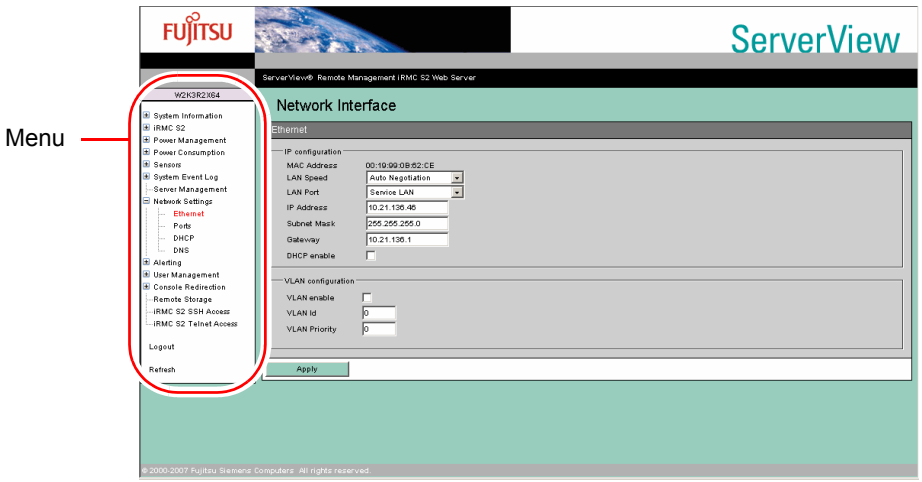
1 Display the Web interface main window.

→"3.1 Starting Web Interface" (pg.18)

2 Select a menu from the tree menu shown at the left of the window.

A menu with [+], contains lower-level menu. Click [+] to display the lower-level menu.

→"3.2.1 Web Interface Menu List" (pg.21)



3 View or set the information.

When changing the value, click [Apply] to apply the setting.

For other buttons, see the descriptions on each window.

For detail description of each window, refer to "Chapter 4 Setting and Referencing User Information" (→pg.25).

POINT

- Select [Refresh] from the menu to refresh the Web interface window.

IMPORTANT

- Do not change the URL which is displayed on the window for selecting a menu. Not supported if the URL is changed.

3.2.1 Web Interface Menu List

This section describes the Web interface menu.

table: Web Interface Menu

Menu		Description
System Information		Displays information of the system on which the Remote Management Controller is running.
	System Overview	Displays information of the system overview. →"4.1.1 System Overview" (pg.26)
	System Components	Displays information of the system components. →"4.1.2 System Component Information" (pg.28)
iRMC S2		Displays Remote Management Controller information and configures the controller.
	iRMC S2 Information	Displays Remote Management Controller information. →"4.2.1 iRMC S2 Information" (pg.29)
	Save Configuration	Saves Remote Management Controller information (V1.66A or later). →"4.2.3 Save iRMC S2 Firmware Settings" (pg.31)
	Certificate Upload	Uploads a Remote Management Controller certificate. →"4.2.4 Certificate Upload" (pg.32)
	Generate Certificate	Obtains a RSA certificate in the Remote Management Controller. →"4.2.5 Generate a self signed RSA Certificate (V1.70A or later)" (pg.33)
Power Management		Sets the power supply control.
	Power On/Off	Displays the server power status. This is also used to turn the server power on/off or restart. →"4.3.1 Power On/Off" (pg.35)
	Power Options	Configures the action when the AC power restores and configures the scheduled operation. →"4.3.2 Power Options" (pg.37)
	Power Supply Info	Displays information of the power supply connected to the server. →"4.3.3 Power Supply Information (V1.70A or later)" (pg.38)
Power Consumption		Configures settings for the power consumption of the server ([iRMC S2] only).
	Consumption Options	Configures the action for the power consumption of the server. →"4.4.1 Power Consumption Configuration ([iRMC S2] only)" (pg.40)
	Power History	Charts the power consumption of the server. →"4.4.2 Power Consumption History ([iRMC S2] only)" (pg.42)
Sensors		Displays the status of each server sensor.
	Fans	Displays the fan status and sets the action in case of an error. →"4.5.1 Fans" (pg.44)
	Temperature	Displays the temperature sensor status and sets the action in case of an error. →"4.5.2 Temperature" (pg.47)
	Voltages	Displays the server internal voltage and current status. →"4.5.3 Voltages and Current" (pg.49)
	Power Supply	Displays the power supply unit status. →"4.5.4 Power Supply" (pg.51)
	Component Status	Displays the status of each sensor. →"4.5.5 Component Status" (pg.52)

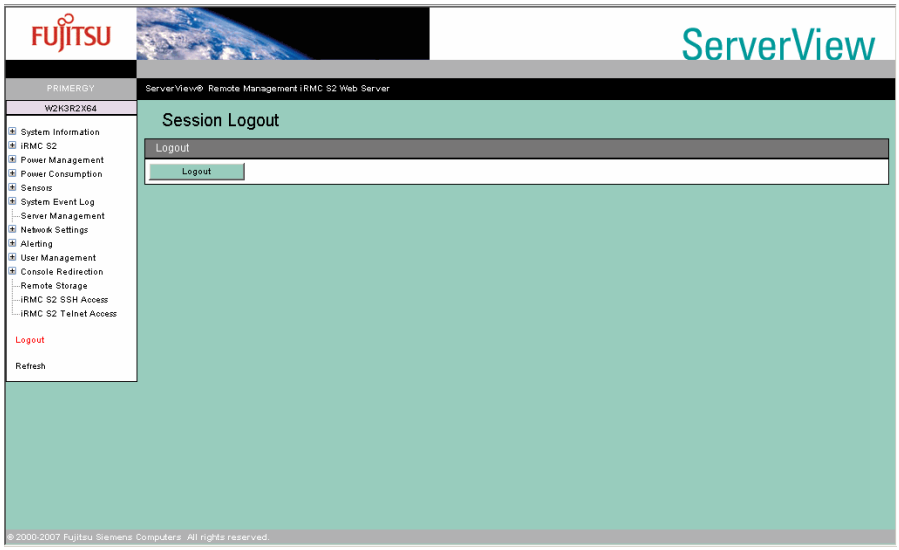
table: Web Interface Menu

Menu	Description
System Event Log	Displays the system event log stored on the baseboard.
SEL Content	Displays or clears the system event log. →"4.6.1 System Event Log Content" (pg.53)
SEL Configuration	Configures the system event log (V1.66A or later). →"4.6.2 System Event Log Configuration" (pg.55)
Server Management	Displays server management information. This is also used to set the server start and restart settings. →"4.7 Server Management Information" (pg.56)
Network Settings	Configures network settings of the Remote Management Controller. See each item for details.
Ethernet	Sets an IP address and a subnet mask of the Remote Management Controller. →"4.8.1 Network Interface" (pg.58)
Ports	Sets port numbers. →"4.8.2 Ports and Network Services" (pg.60)
DHCP	Configures the DHCP settings. →"4.8.3 DHCP Configuration" (pg.62)
DNS	Configures the DNS settings. →"4.8.4 DNS Configuration" (pg.63)
Alerting	Configures the SNMP trap and alert email settings. See each item for details.
SNMP Traps	Configures the SNMP trap alerting settings. →"4.9.1 SNMP Trap Alerting" (pg.64)
Serial/Modem	Configures serial port/modem settings. Not supported.
Email	Configures outgoing email settings. →"4.9.2 Email Alerting" (pg.65)
User Management	Sets information of users used on the Remote Management Controller.
iRMC S2 User	Sets information of users logging on the Remote Management Controller. →"4.10.1 User Management" (pg.67)
LDAP Configuration	Configures the settings for the directory service (V1.66A or later). →"4.10.2 Directory Service Configuration" (pg.72)
Console Redirection	Configures the console redirection and starts it up.
BIOS Text Console	Configures the text console redirection settings. →"4.11.1 BIOS Text Console" (pg.74)
Video Redirection	Starts the Video Redirection. Configures the remote console redirection settings. Also sets the Remote Storage. →"4.11 Console Redirection" (pg.74)
Remote Storage	Displays the Remote Storage unit status, and configures the Remote Storage Server. →"4.12 Remote Storage" (pg.89)
iRMC S2 SSH Access	Displays the Remote Management Controller SSH Access window. →"4.13 iRMC S2 SSH Access" (pg.91)
iRMC S2 Telnet Access	Displays the Remote Management Controller Telnet Access window. →"4.14 iRMC S2 Telnet Access" (pg.93)
Logout	Logs out from the session of the Remote Management Controller Web interface. →"4.15 Session Logout" (pg.94)
Refresh	Refreshes the Web interface window of the Remote Management Controller.

3.3 Exiting Web Interface

This section explains how to exit the Web interface of the Remote Management Controller.

Select [Logout] from the menu to exit the Web interface of the Remote Management Controller.
The Remote Management Controller is automatically logged off when exiting the Web browser without logging out.



Chapter 4

Setting and Referencing User Information

4

This chapter explains the meaning and settings of each Web interface window of the Remote Management Controller.

4.1 System Information

Display the information of the system on which the Remote Management Controller is running.

4.1.1 System Overview

Display the system overview information.

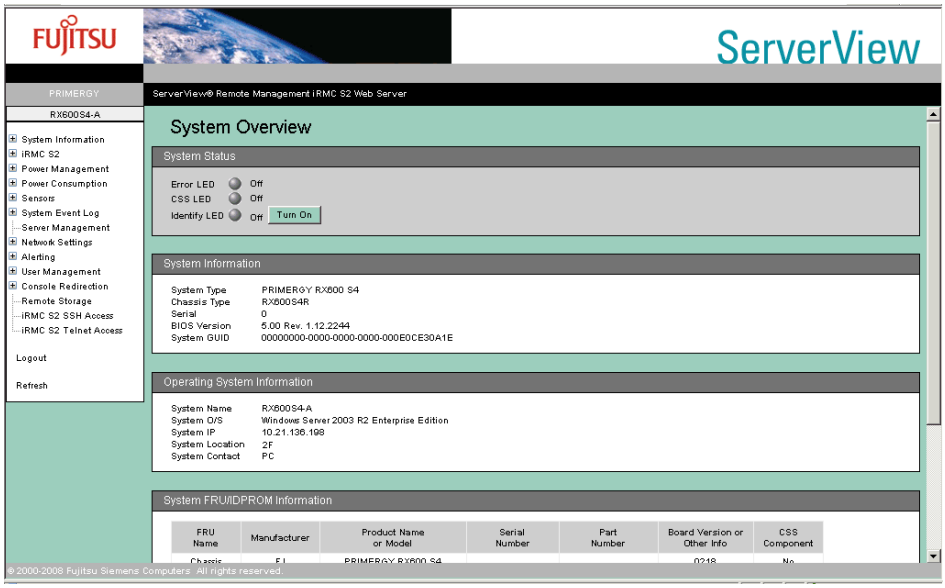


table: Description of each Item Displayed on the [System Overview] Screen

Item		Description
System Status		Displays the status of the system LEDs.
	Error LED	Displays whether the Error LED on the front of the server is on or off.
	CSS LED	Lights when there is an error or a predictor of the user-replaceable memory or CPU in the server ([iRMC S2] only).
	Identify LED	Displays whether the server system identification lamp is on or off. Click [Turn On] displayed on the right side of the information name to turn the lamp on or off.
System Board Information		Displays baseboard information.
	System Type	Displays the server system type.
	Chassis Type	Displays the server chassis type.
	Serial	Displays the serial number of the baseboard.
	Bios Version	Displays the BIOS version.
	System GUID	Displays the baseboard ID.

table: Description of each Item Displayed on the [System Overview] Screen

Item		Description
Operating System Information		Displays OS information.
	System Name	Displays the server name set by the OS.
	System O/S	Displays the OS type.
	System IP	Displays the IP address of the OS.
	System Location	Displays the system location set in the SNMP Service of the OS.
	System Contact	Displays the administrator name set in the SNMP Service of the OS.
System FRU/IDPROM Information		Displays hardware information (V1.70A or later).
	FRU Name	Displays the part name set on the hardware.
	Manufacturer	Displays the manufacturer's name of each part.
	Product Name or Model	Displays the product name or the model.
	Serial Number	Displays the serial number.
	Part Number	Displays the part number.
	CSS Component	Displays whether it is user-replaceable or not.

4.1.2 System Component Information

Display the system component information.

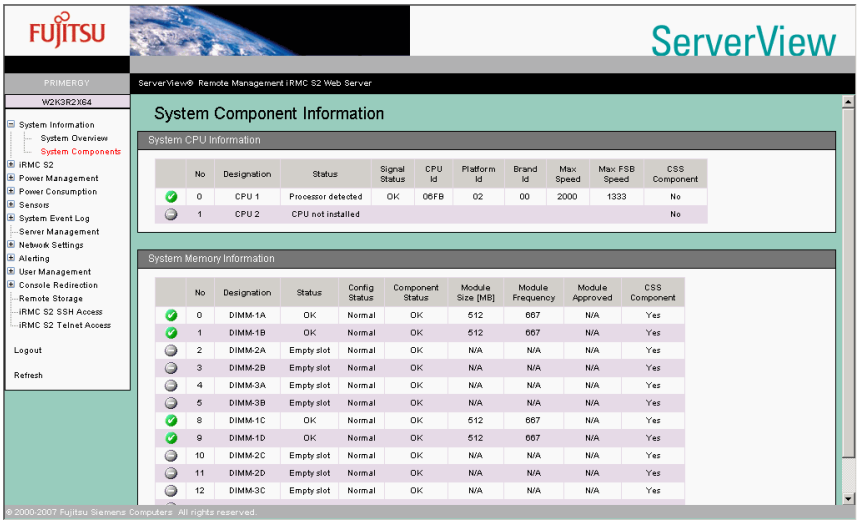


table: Description of each Item Displayed on the [System Component Information] Screen

Item	Description
System CPU Information	Displays CPU information.
No	Displays the sequence number of the CPU.
Designation	Displays the sensor name of the CPU.
Status	Displays the presence or absence of the CPU.
Signal Status	Displays the status of the CPU.
CPU Id	Displays the CPU ID.
Platform Id	Displays the platform ID of the CPU.
Brand Id	Displays the brand ID of the CPU.
Max Speed	Displays the CPU frequency.
Max FSB Speed	Displays the CPU base lock frequency.
CSS Component	Displays whether it is user-replaceable or not ([iRMC S2] only).
System Memory Information	Displays memory information installed on the server ([iRMC S2] only).
No	Displays the sequence number of the memory card.
Designation	Displays the sensor name of the memory card.
Status	Displays whether the memory slot is installed or not.
Config Status	Displays the configuration status of the memory.
Component Status	Displays the status of the memory.
Module Size [MB]	Displays the memory size in [MB].
Module Frequency	Displays the memory frequency in [MHz].
Memory Approved	Displays the approval status of the memory. There is no problem if it displays as N/A or NO.
CSS Component	Displays whether it is user-replaceable or not.
[View SPD Data]	Displays the vendor information of a memory (V3.32A or later).

4.2 iRMC S2

Display and configure information about the Remote Management Controller.

4.2.1 iRMC S2 Information

Display and configure information about the Remote Management Controller.

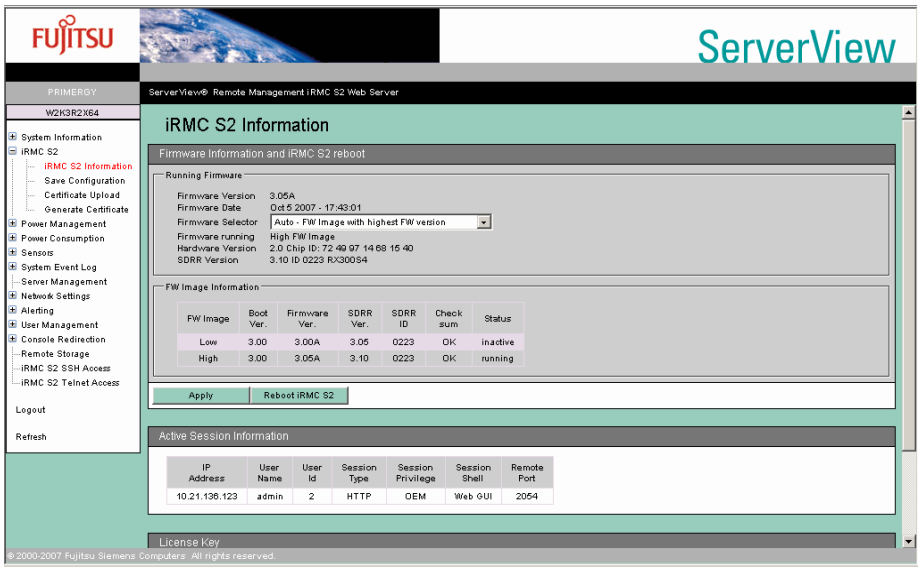


table: Description of each Item Displayed on the [iRMC S2 Information] Screen

Item	Description
Firmware Information and iRMC S2 reboot	Displays iRMC firmware information.
Firmware Version	Displays the iRMC version.
Firmware Date	Displays the creation date of iRMC firmware.
Firmware Selector	Displays the location of the firmware (in ROM). Do not change this.
Firmware running	Displays the active firmware number (in ROM).
Hardware Version	Displays the server hardware version.
SDRR Version	Displays the version of information defining the sensor and threshold.
FW Image Information	Information from the ROM storing the firmware.
[Apply]	The button to apply the setting. No need to use this.
[Reboot iRMC S2]	Reboots iRMC ([iRMC S2] only).

table: Description of each Item Displayed on the [iRMC S2 Information] Screen

Item	Description
Active Session Information	Information of the machine connected to the iRMC (V1.66A or later).
IP Address	Displays the IP address of the machine which is/was connected.
User Name	Displays the iRMC login ID.
User ID	User number of login ID. →"4.10 User Management" (pg.67)
Session Type	Displays the connection protocol.
Session Privilege	Displays the access privilege.
Session Shell	Displays the access form.
Remote Port	Displays the port used for the connected machine.

4.2.2 Setting License Key for Remote Management Controller

Set license key for the Remote Management Controller.

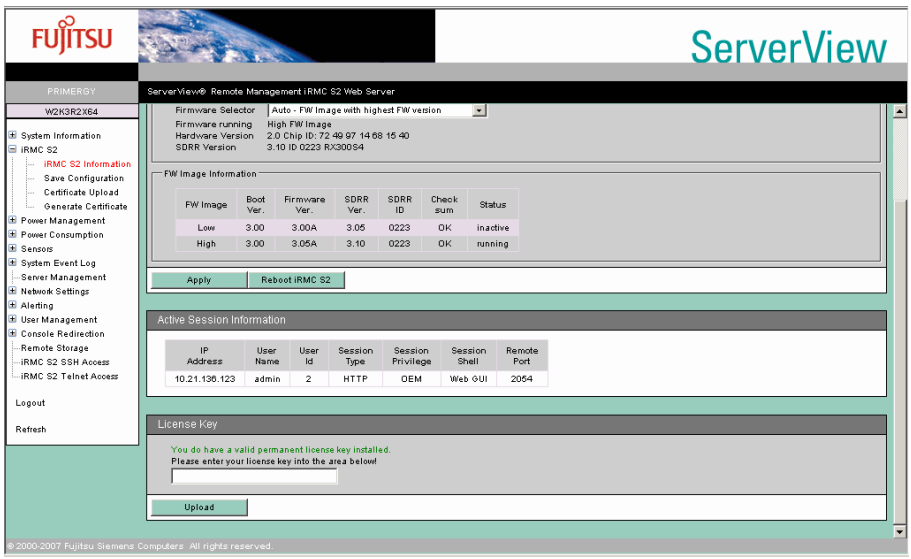


table: Description of each Item Displayed in License Key

Item	Description
License Key	Handles a license key for the management controller.
[Upload]	Authorizes a license for the Remote Management Controller. When the license is authorized, the Video Redirection and the Remote Storage functions become available.

POINT

- For details on the License Key and how to authorize a license, refer to the "Remote Management Controller Upgrade User's Guide". Before the license is authorized, the Video Redirection and the Remote Storage functions are not available.
  For details on each function, refer to "4.11.2 Advanced Video Redirection" (→pg.75), "4.11.5 Remote Storage Connection" (→pg.83).

4.2.3 Save iRMC S2 Firmware Settings

Backup the data of the Remote Management Controller setting information (V1.66A or later).

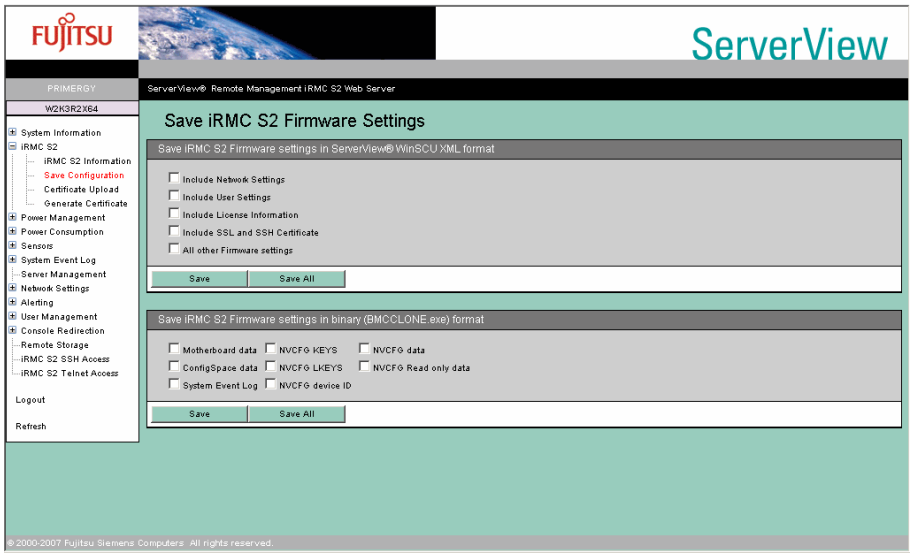


table: Description of each Item Displayed on the [Save iRMC S2 Firmware Settings] Screen

Item	Description
Save iRMC S2 Firmware settings in ServerView®WinSCU XML format	Saves the selected item in XML format which can import by SystemConfigurationUtility of ServerViewAgent for Windows.
Save iRMC S2 Firmware settings in binary (BMCCLONE.exe) format	Saves the selected item in binary format which can import by BMCCLONE.exe tool. Not supported.

POINT

- The BMCCLONE.exe tool is a tool for the maintenance worker. In general, it is not offered.
- The saved data cannot be imported because there is no SystemConfigurationUtility of ServerViewAgent in Server Core.

4.2.4 Certificate Upload

Upload the Remote Management Controller certificate data (V1.66A or later).

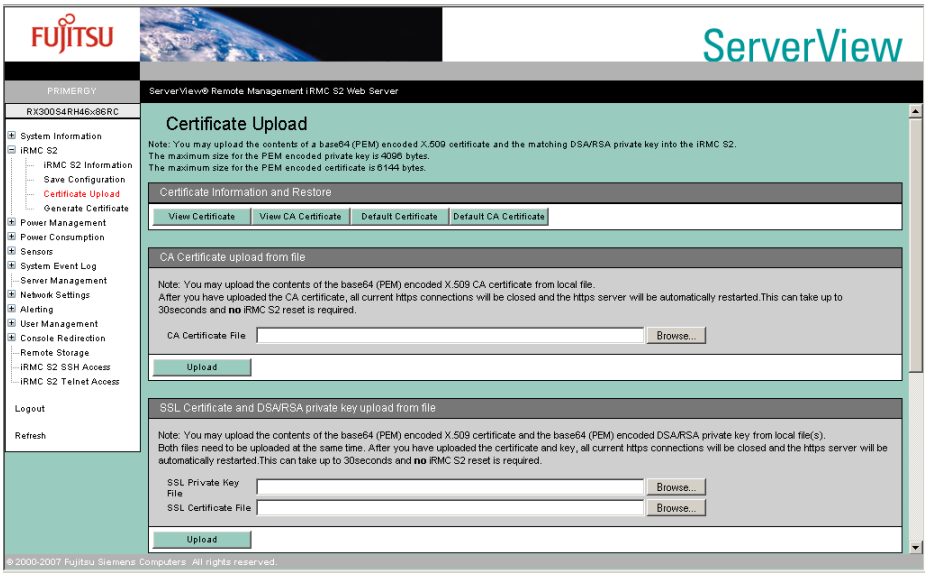


table: Description of each Item Displayed on the [Certificate Upload] Screen

Item	Description
Certificate Information and Restore	
[View Certificate]	Displays the web certificate being applied.
[View CA Certificate]	Displays the Certification Authority certificate being applied ([iRMC S2] only).
[Default Certificate]	Changes the web certificate back to the default.
[Default CA Certificate]	Changes the Certification Authority certificate back to the default ([iRMC S2] only).
CA Certificate upload from file	Uploads a Certification Authority certificate ([iRMC S2] only).
CA Certificate File	Specifies a Certification Authority certificate file. Click [Browse...] to select the file.
[Upload]	Uploads the Certification Authority certificate.
SSL Certificate and DSA/RSA private key upload from file	Uploads a private key file and a certificate file which are created by a public/ private certificate authority.
SSL Private Key File	Specifies a private key file. Click [Browse...] to select the file.
SSL Certificate File	Specifies a certificate file. Click [Browse...] to select the file.
[Upload]	Uploads the private key and the certificate. Both the private key file and the certificate file are required to upload.
Please paste your DSA/RSA certificate or DSA/RSA private key into the text area below!	Uploads the private key and the certificate in a data format without using files. Paste the private key and the certificate in the text box.
[Upload]	Uploads the data in the text box.

POINT

- Uploading the Certification Authority certificate is not supported.
- Use an unencrypted key for the certificate private key.

4.2.5 Generate a self signed RSA Certificate (V1.70A or later)

Obtain RSA certificate data in the Remote Management Controller.

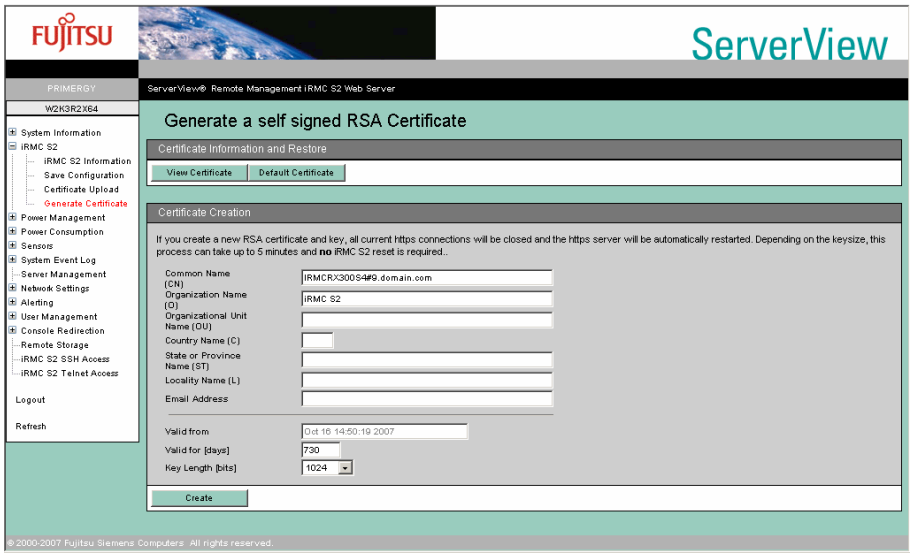


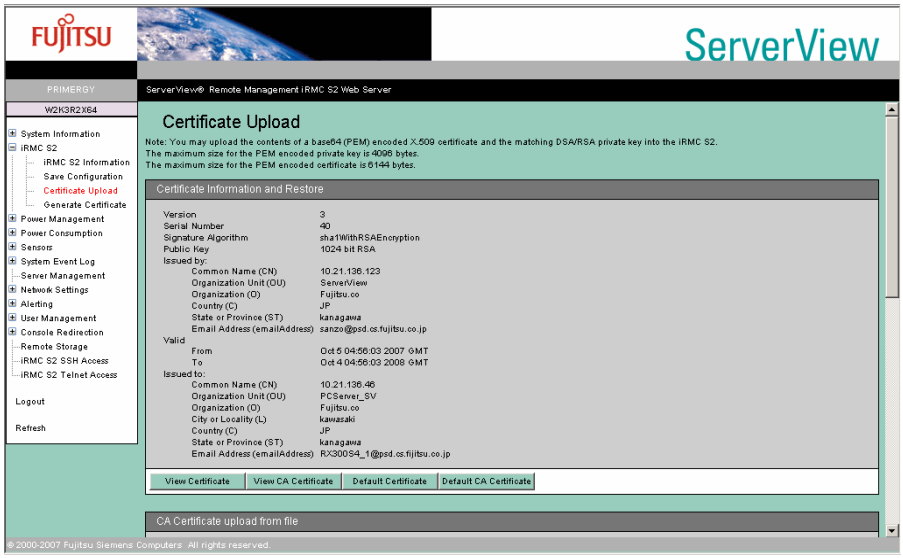
table: Description of each Item Displayed in Certificate Information and Restore

Item		Description
Certificate Information and Restore		Certificate Information and Restore
	[View Certificate]	Displays RSA certificate data currently set.
	[Default Certificate]	Changes RSA certificate data back to the default.
Certificate Creation		Creates a certificate. If a certification authority cannot be used, create a certificate in iRMC.
	Common Name (CN)	Enter your iRMC access name including a domain.
	Organization Name (O)	Enter your organization or company name. Example: FUJITSU
	Organizational Unit Name (OU)	Enter your organizational unit name. Example: Solution Center
	Country Name (C)	Enter your country name which is abbreviated in two letters such as "JP" for Japan and "US" for the United States.
	State or Province Name (ST)	Enter your state or province name.
	Locality Name (L)	Enter your city or locality name.
	Email Address	Enter your email address.
	Valid from	The start date which a certificate is valid. This cannot be specified.
	Valid for [days]	Enter a validity period in days. It is set as 730 days (2 years) by default.
	Key Length [bits]	Select an encrypted key length (bits). It is 1024 bits by default.
	[Create]	Creates a certificate with the information above. It takes about 5 minutes to create. It will be automatically applied to iRMC S2 after the creation.

POINT

- At least "Common Name", "Valid for [days]", "Key Length [bits]" are required to create a certificate.

Click [View Certificate] to display the current settings of the RSA certificate data.



4.3 Power Management

Set the power supply of the server.

4.3.1 Power On/Off

Set the server power on/off or restart.

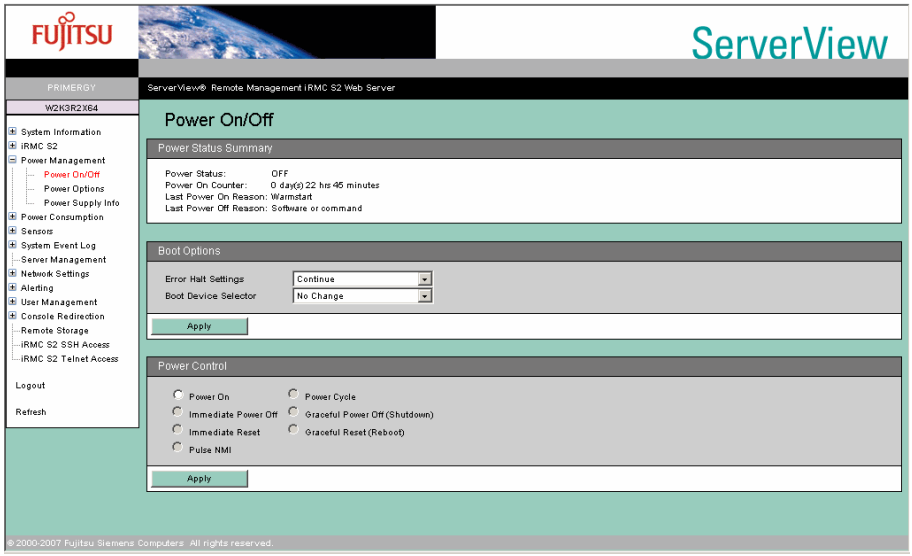


table: Description of each Item Displayed on the [Power On/Off] Screen

Item		Description
Power Status Summary		Displays the current power status.
	Power Status	Displays the current power status as on or off.
	Power On Counter	Displays the total operating time since the server power was turned on.
	Last Power On Reason	Displays the reason for the previous server power on.
	Last Power Off Reason	Displays the reason for the previous server power off.

table: Description of each Item Displayed on the [Power On/Off] Screen

Item		Description
Boot Options		Configures server startup settings.
	Error Halt Settings	Sets the server action to take in case an error occurs during startup. The following settings are available. Select one from the list. • Continue Continues startup processing when an error occurs during startup. • Halt on errors Stops startup until the operator intervenes when an error occurs during startup.
	Boot Device Selector	Selects the startup device. The following settings are available. Select one from the list (V1.70A or later). • No Change Uses the device set on BIOS. • PXE/iSCSI Boots from the PXE/iSCSI device. • Hard-drive Boots from the hard disk device. • CDROM/DVD Boots from the CD-ROM/DVD device. • Floppy Boots from the floppy disk.
Power Control		Controls the power of the server. • Power On Turns on the server power. • Immediate Power Off Turns off the server power immediately without saving system information. • Immediate Reset Resets the server immediately without saving system information. • Power Cycle Turns off the server power after saving system information, and then turns on the power again. • Graceful Power Off (Shutdown) Turns off the server power after saving system information. • Graceful Reset (Reboot) Resets the server after saving system information. • Pulse NMI Displays the NMI signal (V1.66A or later).

POINT

- "Pulse NMI" is available only on the device supported NMI.

4.3.2 Power Options

Configure actions for when the AC power restores and the scheduled operation for automatic power on/off of the server (V1.66A or later).

table: Description of each Item Displayed on the [Power Options] Screen

Item	Description
Power Restore Policy	Configures the power restore action if the server power is interrupted by a power failure. • Always power off The server does not perform any power restore action if there is a power failure. • Always power on The server automatically performs a power restore action if there is a power failure. • Restore to powered state prior to power loss The server restores the status just before the power failure occurred. If the server power was "on", the power is restored automatically. If the server power was "off", the power is not restored and remains off.
Power On/Off Time	Sets the time to automatically power on and off the server. Enter the time in hh:mm format (where hh is a two-digit hour from 00 to 23, and mm is a two-digit minute from 00 to 59). You can specify the time by selecting everyday or a day of the week. You can send a trap which means the power-on/off of the server. In the [Trap] field, specify how many minutes in advance of the power-on/off of the server to send the trap.

4.3.3 Power Supply Information (V1.70A or later)

Display information of the power supply connected to the server.

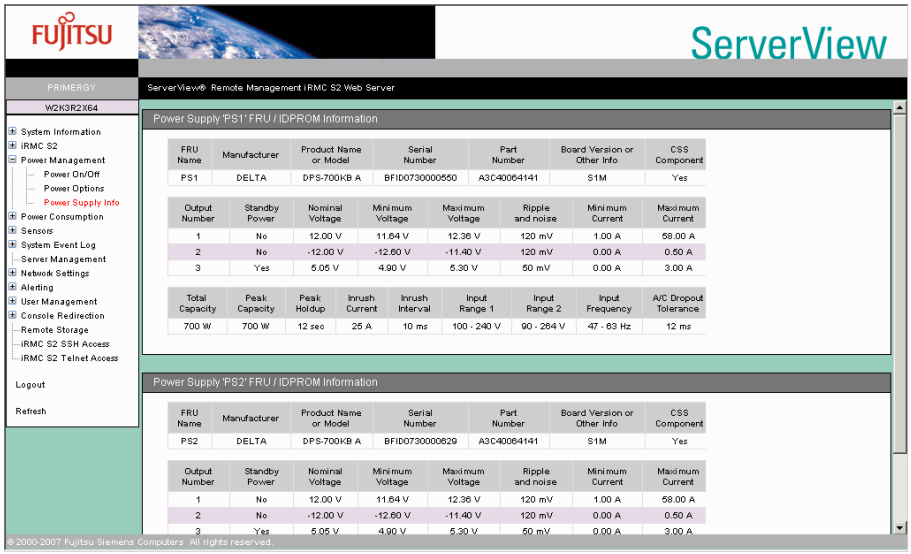


table: Description of each Item Displayed on the [Power Supply Information] Screen

Item	Description
Power Supply 'PSx' FRU / IDPROM Information	Displays information of the power supply 'PSx'.
FRU Name	Displays the power supply name defined on the server.
Manufacturer	Displays the manufacturer's name.
Product Name or Model	Displays the product name or a model.
Serial Number	Displays the serial number.
Part Number	Displays the part number.
CSS Component	Displays whether it is user-replaceable or not.
Output Number	Displays the output cable number.
Standby Power	Displays whether standby power is used or not.
Nominal Voltage	Displays the nominal voltage.
Minimum Voltage	Displays the minimum voltage.
Maximum Voltage	Displays the maximum voltage.
Ripple and noise	Displays the ripple and noise of the output value.
Minimum Current	Displays the minimum current.
Maximum Current	Displays the maximum current.
Total Capacity	Displays the total capacity of the output power.
Peak Capacity	Displays the peak capacity of the output power.
Peak Holdup	Displays the continuous time of the peak output.
Inrush Current	Displays the inrush current.
Inrush Interval	Displays the inrush current interval.

table: Description of each Item Displayed on the [Power Supply Information] Screen

Item		Description
	Input Range 1	Displays the input power range 1.
	Input Range 2	Displays the input power range 2.
	Input Frequency	Displays the input frequency.
	A/C Dropout Tolerance	Displays the A/C dropout tolerance.

POINT

- Some item of [Power Supply Information] may not be displayed depending on the type of the power supply units.

4.4 Power Consumption

Configure settings for the power consumption of the server.

4.4.1 Power Consumption Configuration ([iRMC S2] only)

Configure the settings for the power consumption of the server.

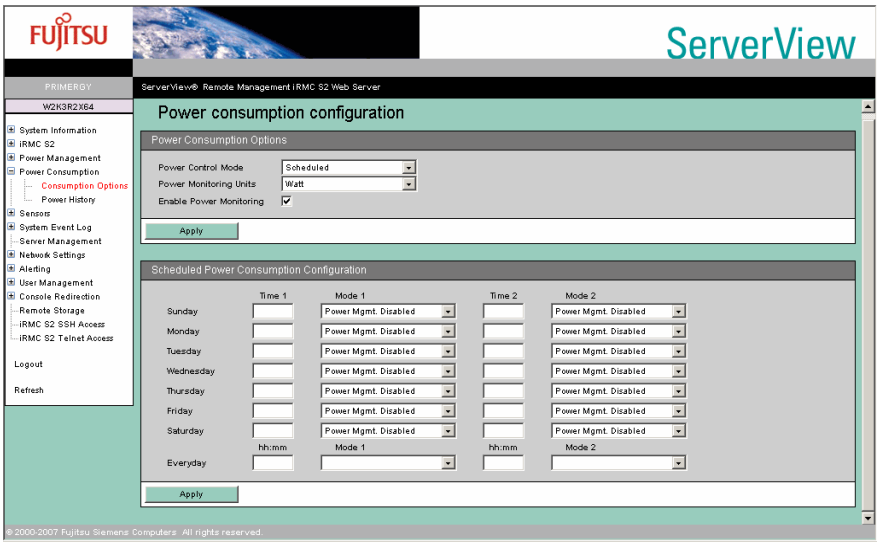


table: Description of each Item Displayed on the [Power Consumption Configuration] Screen

Item		Description
Power Consumption Options		Configures settings for the power consumption of the server.
	Power Control Mode	Configures the action for the power consumption of the server. • Power Mgmt. Disabled Does not do any particular action for the power consumption. • Best Performance Makes the best performance regardless of the power consumption. • Minimum Power Minimizes the power consumption. • Scheduled Enables to change the action daily or hourly depending on the schedule.
	Power Monitoring Units	Specifies either Watt or BTU/h for display the power when monitoring the power consumption. • Watt Displays the power consumption in Watt. • BTU/h Displays the power consumption in British Thermal Unit.
	Enable Power Monitoring	Monitors the power consumption.
Scheduled Power Consumption Configuration		Select [Scheduled] on [Power Control Mode] to enable the scheduled operation. For information on how to set, refer to "■ Scheduled Power Consumption Configuration" (→pg.41).

POINT

- A server without the monitoring function does not display [Power Monitoring Units] and [Enable Power Monitoring] items.
- When using Power Consumption function to control the power, enable [Processor Power Management] or [Enhanced SpeedStep] in [Advanced] menu of BIOS Setup Utility.
  When it is disabled, the actions of [Power Control Mode] cannot be changed.

■ Scheduled Power Consumption Configuration

By selecting [Scheduled] on [Power Control Mode], you can schedule actions for power consumption daily or twice in each day.

1 Enter the start time in [Time 1] or [Time 2] on the day to set.

2 Select the action which starts on the entered time on [Mode 1] or [Mode 2].

The selectable action is same as " Power Control Mode" (→pg.40) (except Scheduled).

3 Click [Apply].

The configuration is applied, and the selected action starts on the entered time and day.

POINT

- Enter the time in hh:mm format (hh: two-digit hour from 00 to 23 / mm: two-digit minute from 00 to 59).
- The action on [Time 2] is operated when the same time was entered on [Time 1] and [Time 2].
- Select [Everyday] to configure the same settings for every day.
- To disable the settings, delete the entered time and click [Apply].

4.4.2 Power Consumption History ([iRMC S2] only)

Display the monitored power consumption of the server.
A server without power consumption monitoring function does not display this item.

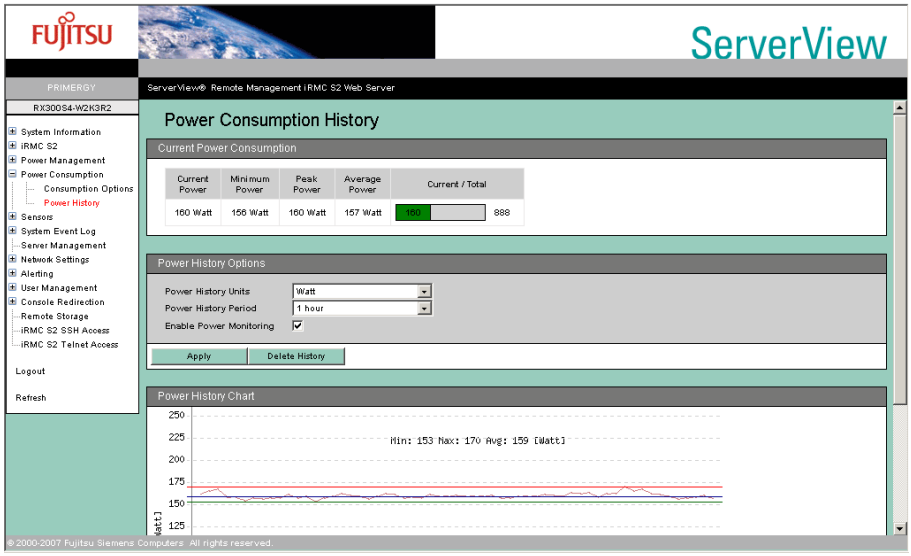


table: Description on the Item Displayed on the [Power Consumption History] Screen

item		Description
Current Power Consumption		Displays the current power consumption.
	Current Power	Displays the current power consumption.
	Minimum Power	Displays the current minimum power.
	Peak Power	Displays the current peak power.
	Average Power	Displays the current average power.
	Current/Total	Displays the current power consumption / the amount of the maximum power consumption.
Power History Option		Configure the display setting for Power History Chart.
	Power History Units	Specifies either Watt or BTU/h for display the power when monitoring the power consumption. • Watt Displays the power consumption in Watt. • BTU/h Displays the power consumption in British Thermal Unit.
	Power History Period	Sets the horizontal axis of Power History Chart (display period).
	Enable Power Monitoring	Monitors the power consumption.
	[Delete History]	Delete the monitored data.
Power History Chart		Charts the monitored power consumption. Refer to "● Description of Power History Chart" (→pg.43) for detail on how to see the chart.

Description of Power History Chart

The monitored power consumption is displayed as a chart.

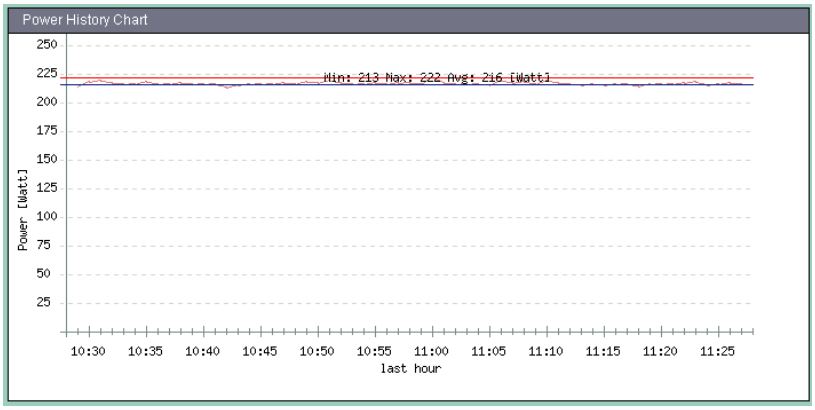


table: Description of Power History Chart

Item	Description
Vertical axis	Displays the measure that is specified on [Power History Units].
Horizontal axis	Display the indicated period that is set on [Power History Period].
Brown line	Displays the transition of the power consumption
Green line	Displays the minimum power consumption of the indicated period.
Red line	Displays the peak power consumption of indicated period.
Blue line	Displays the average power consumption of the indicated period.

POINT

- The power consumption which power monitor function display may have uncertainty of 20%.

4.5 Sensors

Display the status of the fans, the temperature sensor, the voltage and the power unit inside the server.

4.5.1 Fans

Display the status of the fans inside the server, such as the CPU fan or the system fan, and to set the action in case of failure.

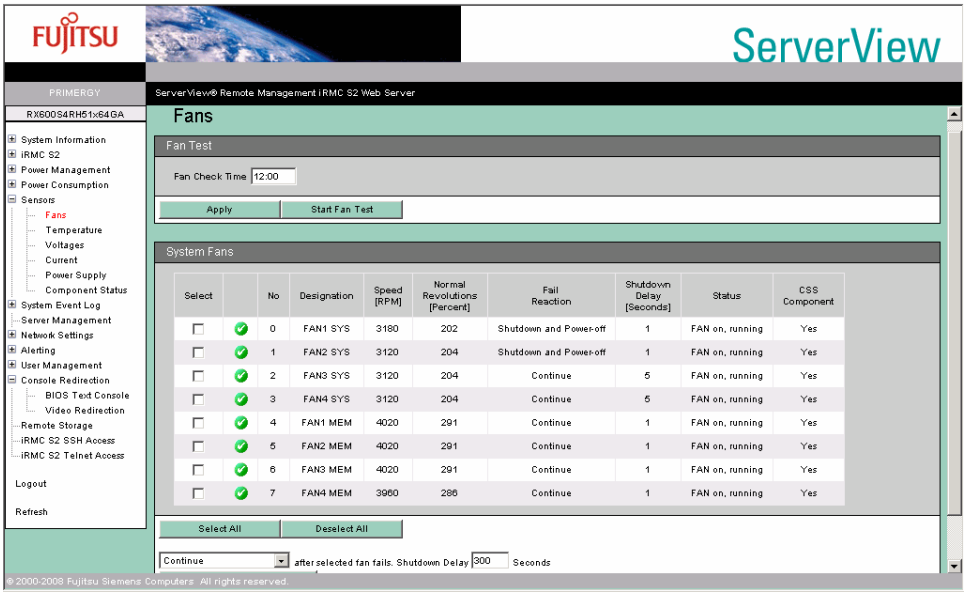


table: Description of each Item Displayed on the [Fans] Screen

Item	Description
Fan Test	Sets the time to check the status of the fans. Enter the time to check the fan status in [Fan Check Time]. Enter the time in hh:mm format (where hh is a two-digit hour from 00 to 23, and mm is a two-digit minute from 00 to 59).
[Start Fan Test]	Click to check the current fan status immediately.

table: Description of each Item Displayed on the [Fans] Screen

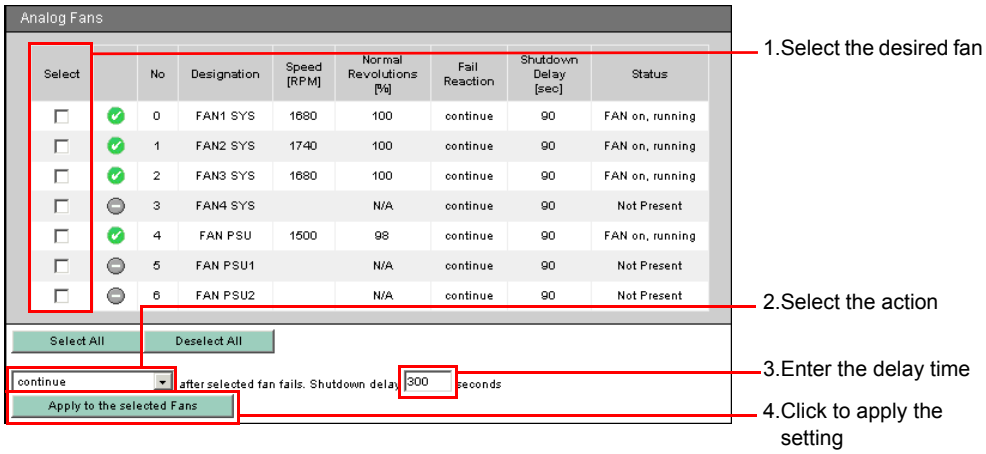
Item	Description
System Fans	Displays the current fan status. Also, configures the system action in case a fan failure occurs.
Select	Check the checkbox to select the fan for which to set the action in case of a failure. For information on how to set the action, refer to "■ Action in Case of a Fan Failure" (→pg.46).
No	Displays the sequence number of the fan.
Designation	Displays the name of the fan sensor.
Speed	Displays the current rotating speed of the fan in RPM.
Normal Revolutions	Displays the current fan rotation speed as a percentage of the rotation speed during the previous fan status check.
Fail Reaction	Displays the action to be taken by the system is there is a fan failure. For information on how to set the action, refer to "■ Action in Case of a Fan Failure" (→pg.46).
Shutdown Delay	Displays the delay in seconds from the time a fan failure is detected until the system starts the set action. For information on how to set the action, refer to "■ Action in Case of a Fan Failure" (→pg.46).
Status	Displays the current fan status (installed/not installed, operating/stopped, Power Off).

POINT

- Some items may be blank if fan information cannot be obtained because the fan power is off.

■ Action in Case of a Fan Failure

Set the action to be taken by the system in case of a fan failure.



1 Select the desired fan by checking the checkbox in the [Select] column.

POINT

- Click [Select All] if you want to select all of the displayed fans. Click [Deselect All] to deselect all selected fans.

2 Select [continue] or [shutdown-and-power-off] from the following action list.

table: Fan Action Item

Action	Description
continue	The system continues the operation though a fan failure is detected.
shutdown-and-power-off	The system continues the operation for the specified delay time (set by the next procedure) when a fan failure is detected. If the failure is not recovered within that time, the system shuts down automatically.

3 Enter the delay time until the system takes action for the fan failure.

The unit is seconds. Enter a number between 0 and 300.

4 Click [Apply to the selected Fans] to apply the setting.

View each item in the window to confirm that the setting is applied.

- Action setting: [Fail Reaction] column
- Delay time setting: [Shutdown Delay] column

4.5.2 Temperature

Display the status of each temperature sensor in the server and set the action in case of failure.

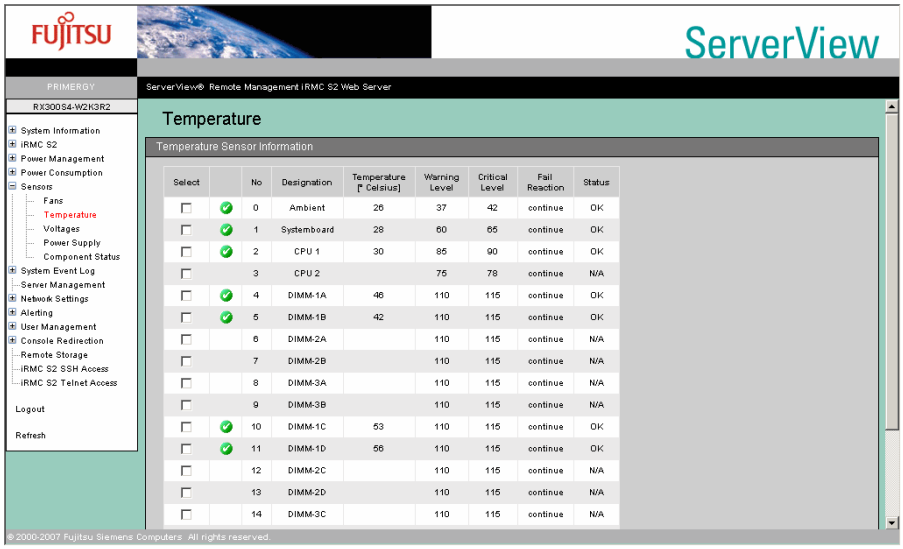


table: Description of each Item Displayed on the [Temperature] Screen

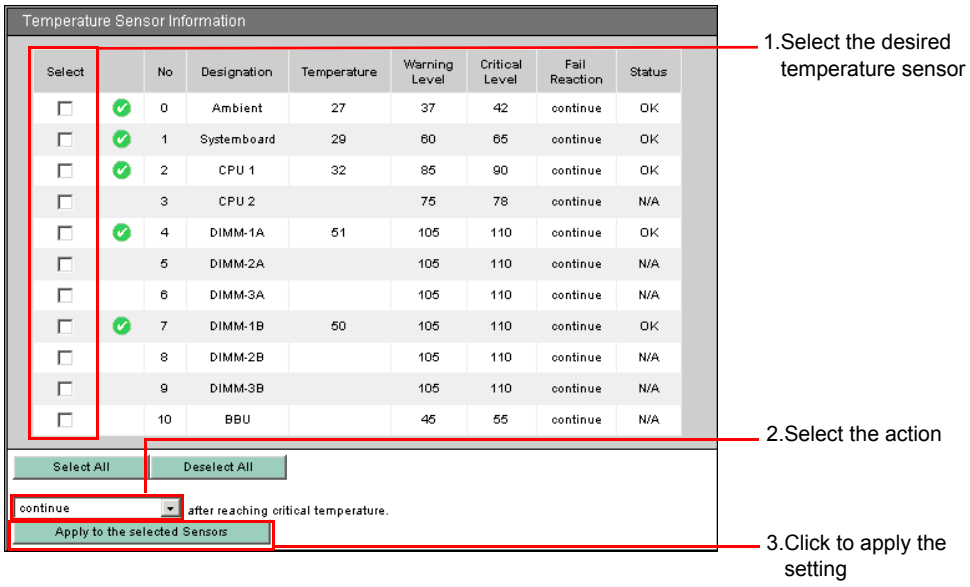
Item	Description
Temperature Sensor Information	Displays the current temperature sensor status. Also configures the system action when a temperature error occurs.
Select	Check the checkbox to select the temperature sensor to set the action in case of a temperature error. For information on how to set the action, refer to "■ Action in Case of a Temperature Error" (→pg.48).
No	Displays the sequence number of the temperature sensor.
Designation	Displays the name of the temperature sensor.
Temperature	Displays the current temperature.
Warning Level	Displays the warning level temperature.
Critical Level	Displays the critical level temperature.
Fail Reaction	Displays the action to be taken by the system in case of a temperature error. For information on how to set the action, refer to "■ Action in Case of a Temperature Error" (→pg.48).
Status	Displays whether the current temperature is abnormal or not. • OK: There is no problem. • N/A: Not connected. • Warning: Warning level. • Critical: Critical level. • Power Off: The status cannot be obtained because the server is powered off.

POINT

- Some items may be blank if temperature information cannot be obtained.

■ Action in Case of a Temperature Error

Set the action to be taken by the system in case of a temperature error.



1 Select the desired temperature sensor by checking the checkbox in the [Select] column.

POINT

- Click [Select All] if you want to select all of the displayed temperature sensors. Click [Deselect All] to deselect all selected temperature sensors.

2 Select [continue] or [shutdown-and-power-off] from the following action list.

table: Temperature Sensor Action Item

Action	Description
continue	The system continues operation in the event of a temperature error.
shutdown-and-power-off	The system shuts down automatically in the event of a temperature error.

3 Click [Apply to the selected Sensors] to apply the setting.

View the [Fail Reaction] column to check that the setting is applied.

POINT

- There is no waiting time for actions against temperature errors. The action is taken immediately when an error is detected.

4.5.3 Voltages and Current

Refer to the server internal voltages.

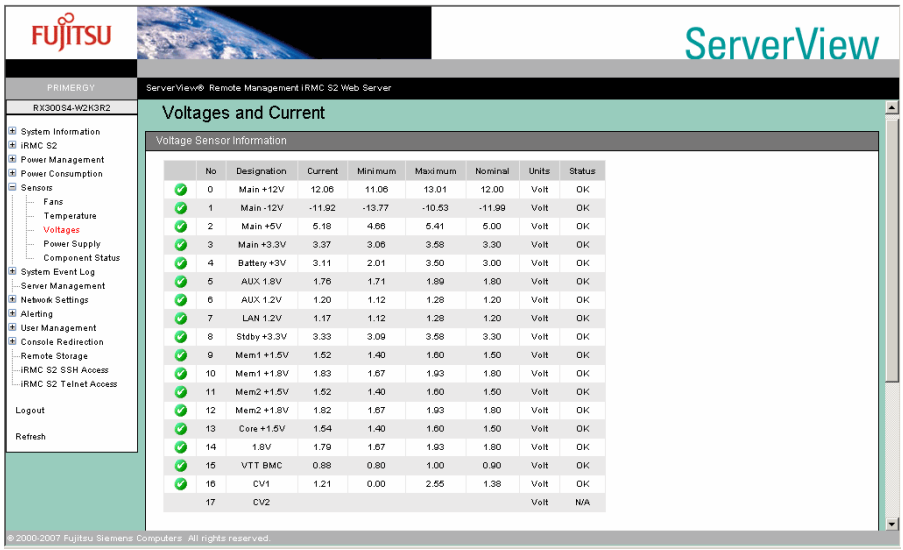


table: Description of each Item Displayed on the [Voltages] Screen

Item		Description
Voltage Sensor Information		Displays information about the voltage sensor.
	No	Displays the sequence number of the voltage sensor.
	Designation	Displays the voltage sensor name.
	Current	Displays the current voltage.
	Minimum	Displays the allowed minimum voltage.
	Maximum	Displays the allowed maximum voltage.
	Nominal	Displays the nominal voltage.
	Status	Displays whether the current voltage is abnormal or not. • OK: There is no problem. • N/A: Not connected or digital sensor (On/Off only). • Upper-Warning: Upper warning level. • Lower-Warning: Lower warning level. • Power Off: The status cannot be obtained because the server is powered off.

table: Description of each Item Displayed on the [Voltages] Screen

Item		Description
Current Sensor Information		Displays information about the current sensor.
	No	Displays the sequence number of the current sensor.
	Designation	Displays the current sensor name.
	Current	Displays the present current.
	Minimum	Displays the allowed minimum current.
	Maximum	Displays the allowed maximum current.
	Nominal	Displays the nominal current.
	Status	Displays whether the present current is abnormal or not. • OK: There is no problem. • N/A: Not connected or digital sensor (On/Off only). • Upper-Warning: Upper warning level. • Lower-Warning: Lower warning level. • Power Off: The status cannot be obtained because the server is powered off.

POINT

- There is no system action in case of an error for [Voltages].
- [Current Sensor Information] is not displayed on the servers which are not supported by the hardware.

4.5.4 Power Supply

Display the status of the server's power supply unit (PSU).

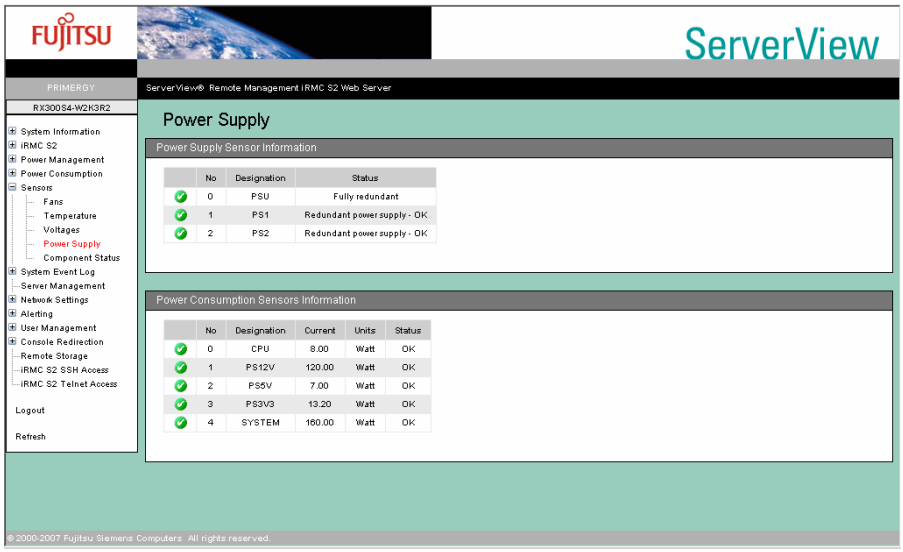


table: Description of each Item Displayed on the [Power Supply] Screen

Item		Description
Power Supply Sensor Information		Displays the information of the power supply unit sensor.
	No	Displays the sequence number of the power supply unit.
	Designation	Displays the power supply unit name.
	Status	Displays the status of the power supply unit.
Power Consumption Sensors Information		Displays the information of the power consumption sensors. **Note:** ▸ This item is not displayed if the unit does not equip power consumption sensor.
	No	Displays the sequence number of the power consumption sensors.
	Designation	Displays the monitoring target of the power consumption sensors.
	Current	Displays the current power consumption.
	Units	A unit of each power consumption that is displayed.
	Status	Displays the power consumption status.

POINT

- If the power supply unit has a redundant configuration, a sensor indicating the redundancy status is also displayed.

4.5.5 Component Status

Display the status of each sensor in the server.

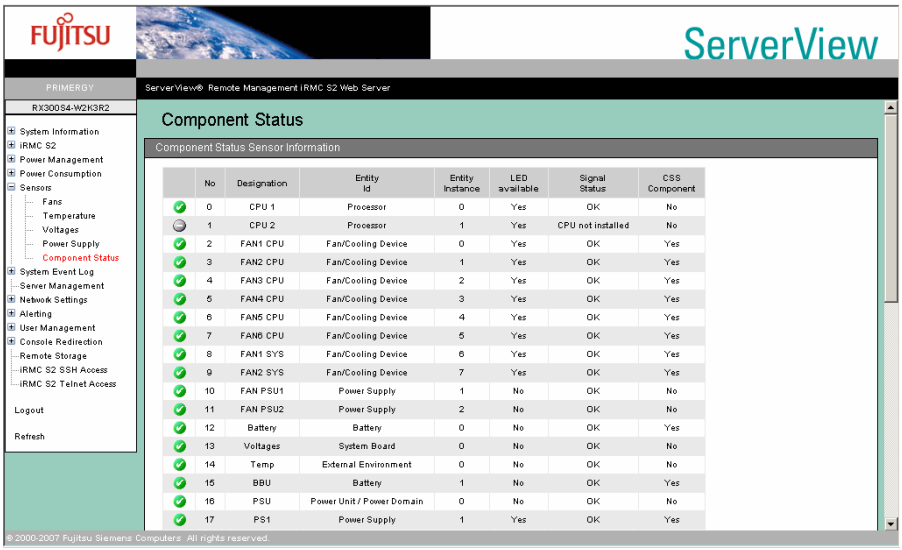


table: Description of each Item Displayed on the [Component Status Sensor Information] Screen

Item		Description
Component Status Sensor Information		
	No	Displays the sequence number of the sensor.
	Designation	Displays the sensor name.
	Entity Id	Displays the sensor type.
	Entity Instance	Displays the sequence number by sensor type.
	LED available	Displays the On/Off status of the sensor LED.
	Signal Status	Displays the sensor status.
	CSS Component	Displays whether it is user-replaceable or not ([iRMC S2] only).

4.6 System Event Log

Display and configure the system event log of the server.

4.6.1 System Event Log Content

Display the system event log (SEL) stored in the baseboard.

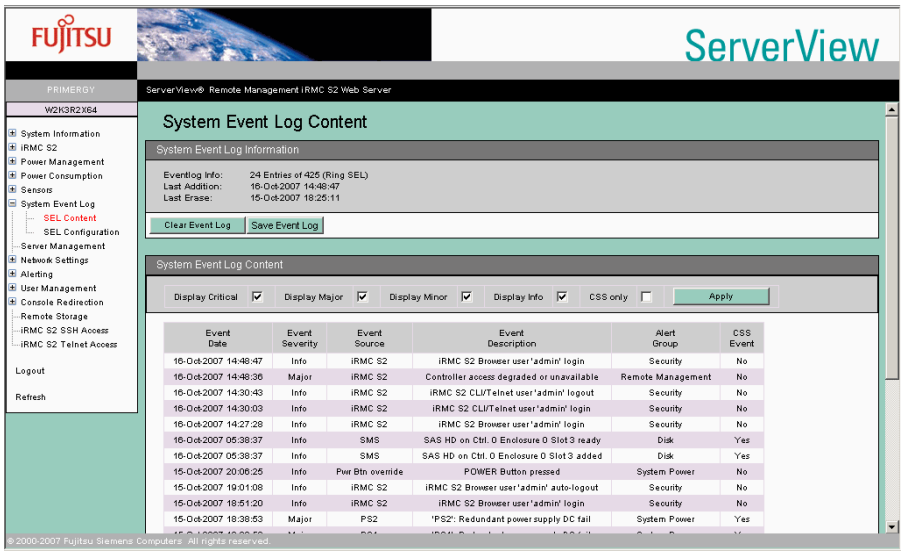


table: Description of each Item Displayed on the [System Event Log] Screen

Item		Description
System Event Log Information		Displays information about the event logs.
	Eventlog Info	Displays the current number of event logs.
	Last Addition	Displays the time and date of the last log entry.
	Last Erase	Displays the time and date when the event log is cleared.
	[Clear Event Log]	Clears the entire system event log.
	[Save Event Log]	Saves the system event log in text format (V1.70A or later).

table: Description of each Item Displayed on the [System Event Log] Screen

Item		Description
System Event Log Content		A list of event logs. Check the checkbox for the desired action, and click [Apply].
	Display Critical	Displays the event log in the "Critical" level (V1.66A or later).
	Display Major	Displays the event log in the "Major" level (V1.66A or later).
	Display Minor	Displays the event log in the "Minor" level (V1.66A or later).
	Display Info	Displays the event log in the "Information" level (V1.66A or later).
	CSS only	Displays only the event log of which "CSS" is enabled ([iRMC S2] only).
	Event Date	Displays the time and date the event occurred.
	Event Severity	Displays the severity of the event. The four severity levels are in ascending order: Info, Minor, Major, and Critical.
	Event Source	Displays the source of the event.
	Event Description	Displays the description of the event.
	Alert Group	Displays the classification of the event (V1.66A or later).
	CSS Event	Displays whether the event occurs in the user-replaceable module or not ([iRMC S2] only).

POINT

- The maximum number of events stored in the system event log is 256 to 512 depending on the server (BIOS).
- For the system event log storage method (overwrite, etc.), refer to "User's Guide" supplied with the server.

4.6.2 System Event Log Configuration

Configure the default settings of the system event log which is displayed on "4.6.1 System Event Log Content" (→pg.53) (V1.66A or later).

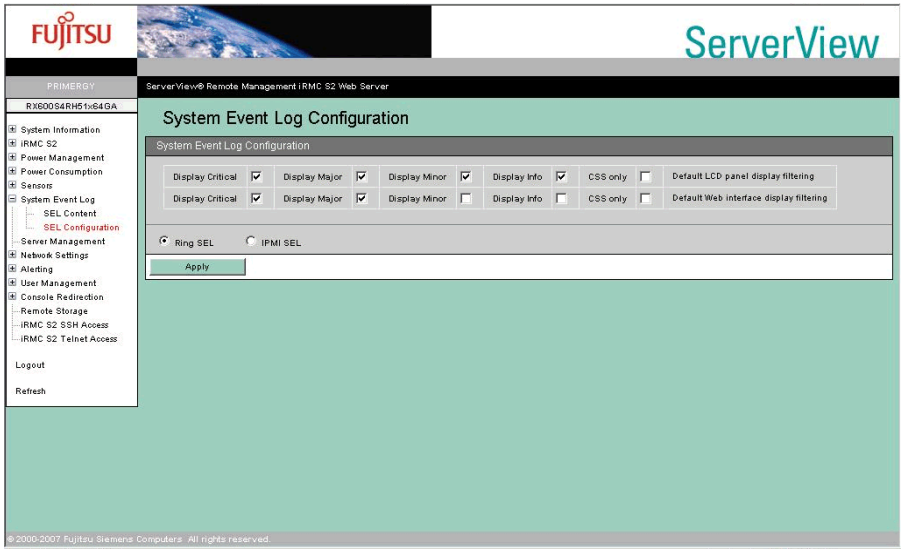


table: Description of each Item Displayed on the [System Event Log Configuration] Screen

Item	Description
System Event Log Configuration	
Default LCD panel display filtering	Specifies the severity of the system event log to display in LCD (This item is displayed only on the machine which is equipped with the LCD panel).
Display Critical	Sets to display the event log in the "Critical" level by default.
Display Major	Sets to display the event log in the "Major" level by default.
Display Minor	Sets to display the event log in the "Minor" level by default.
Display Info	Sets to display the event log in the "Information" level by default.
CSS only	Sets to display only the event log of which "CSS" is enabled by default ([iRMC S2] only).
Default Web interface display filtering	Specifies the severity of the system event log to display in [System Event Log Content] window by default.
Display Critical	Sets to display the event log in the "Critical" level by default.
Display Major	Sets to display the event log in the "Major" level by default.
Display Minor	Sets to display the event log in the "Minor" level by default.
Display Info	Sets to display the event log in the "Information" level by default.
CSS only	Sets to display only the event log of which "CSS" is enabled by default ([iRMC S2] only).
Ring SEL	Sets to display in Ring SEL by default.
IPMI SEL	Sets to display in IPMI SEL by default.

POINT

- The settings in the System Event Log Configuration are applied when you log into the iRMC.

4.7 Server Management Information

Display and set the server management information.

POINT

- Some items have restrictions depending on the servers. For details, refer to "User's Guide" supplied with the server.

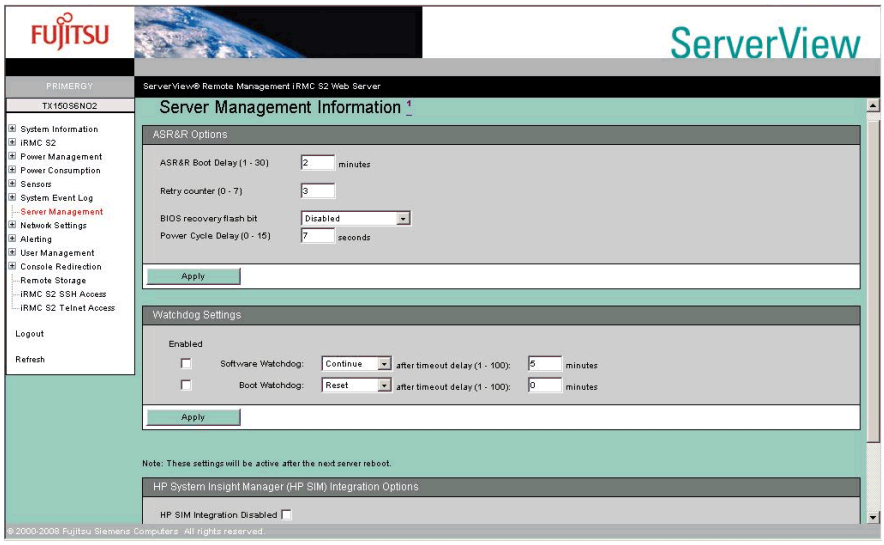


table: Description of each Item Displayed on the [Server Management Information] Screen

Item	Description
ASR&R Options	Configures the server restart settings. The information set here is also applied to the server BIOS setup utility.
ASR & R Boot Delay	If the server shuts down due to a fan failure or temperature error, the server automatically powers on again after the time set here (in minutes). However, if [Retry Counter] is set to 0, the server does not power on automatically.
Retry counter	Sets the auto restart count (between 0 and 7) after the server shuts down in the event of an error. This counter is decremented by 1 each time restart is performed due to a fan failure, temperature error, OS watchdog timeout, or boot watchdog timeout. When the counter reaches 0, the server does not power on automatically.
BIOS recovery flash bit	Configures the auto rewrite settings of BIOS. • Enabled Enables auto rewrite. BIOS is rewritten automatically if the BIOS image to be written is set in the BIOS auto rewrite area. Not supported. • Disabled Disables auto rewrite.
Power Cycle Delay	Sets the time (0 to 15 seconds) between power off and power on when using power cycles.

table: Description of each Item Displayed on the [Server Management Information] Screen

Item	Description
Watchdog Settings	Configures the action to take when there is no response from the OS within the specified time or when the boot does not finish. The information set here is also applied to the server BIOS setup utility.
Enabled	Enables Software Watchdog / Boot Watchdog. **Note:** ▸ When the setting of this item is changed, it is necessary to reboot the server to apply that setting.
Software Watchdog	Monitors response from OS. • Power Cycle Performs power off/on when timeout occurs. • Reset Restarts the server when timeout occurs. • Continue Does nothing when timeout occurs.
Boot Watchdog	Monitors the boot time (time after BIOS ends until OS starts). • Power Cycle Performs power off/on when timeout occurs. • Reset Restarts the server when timeout occurs. • Continue Does nothing when timeout occurs.
Timeout	Specifies a value between 1 and 100 (in minutes). The maximum value and the values that can be set depend on the server (BIOS).
HP System Insight Manager (HP SIM) Integration Options	Sets how to respond to the response requirement from SIM of the Hewlett-Packard Company (HP).
HP SIM Integration Disabled	Sets not to respond to HP SIM (V3.21 or later).

4.8 Network Settings

Display and change the Remote Controller Management network settings.

4.8.1 Network Interface

Configure settings such as an IP address and a subnet mask for the Remote Management Controller. The information set here is also applied to the server BIOS setup utility.

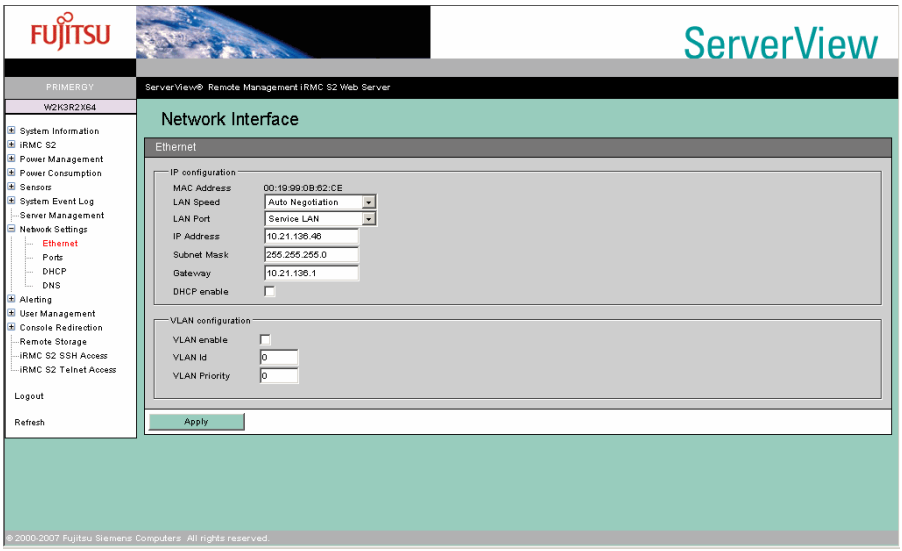


table: Description of each Item Displayed on the [Ethernet] Screen

Item	Description
IP configuration	
MAC Address	Displays the MAC address of the LAN installed on the Remote Management Controller.
LAN Speed	Specifies LAN connection speed. • Auto Negotiation Detects the connection speed automatically, and specifies it. • 100 MBits/s Full Duplex Connects with 100M Bits/s full duplex. • 100 MBits/s Half Duplex Connects with 100M Bits/s half duplex. • 10 MBits/s Full Duplex Connects with 10M Bits/s full duplex. • 10 MBits/s Half Duplex Connects with 10M Bits/s half duplex.

table: Description of each Item Displayed on the [Ethernet] Screen

Item		Description
	LAN Port	Specifies the LAN port used for iRMC S2 ([iRMC S2] only). • Service LAN Uses the dedicated LAN port for iRMC S2. • Shared LAN Shares the server LAN port with iRMC S2.
	IP Address	Specifies the IP address of the Remote Management Controller.
	Subnet Mask	Specifies the subnet mask of the Remote Management Controller.
	Gateway	Specifies the gateway address of the Remote Management Controller.
	DHCP enable	Check the checkbox to use DHCP for the Ethernet settings for the Remote Management Controller. When this setting is enabled, DHCP is given preference over the above setting.
VLAN configuration		
	VLAN enable	Check the checkbox to use VLAN.
	VLAN Id	Specifies the ID of VLAN.
	VLAN Priority	Specifies the priority of VLAN.

IMPORTANT

- If incorrect value is set for each item of VLAN, the Remote Management Controller (Web interface), SSH or Telnet may not be connected. Make sure to set correct values.

4.8.2 Ports and Network Services

Configure the port number for each access.

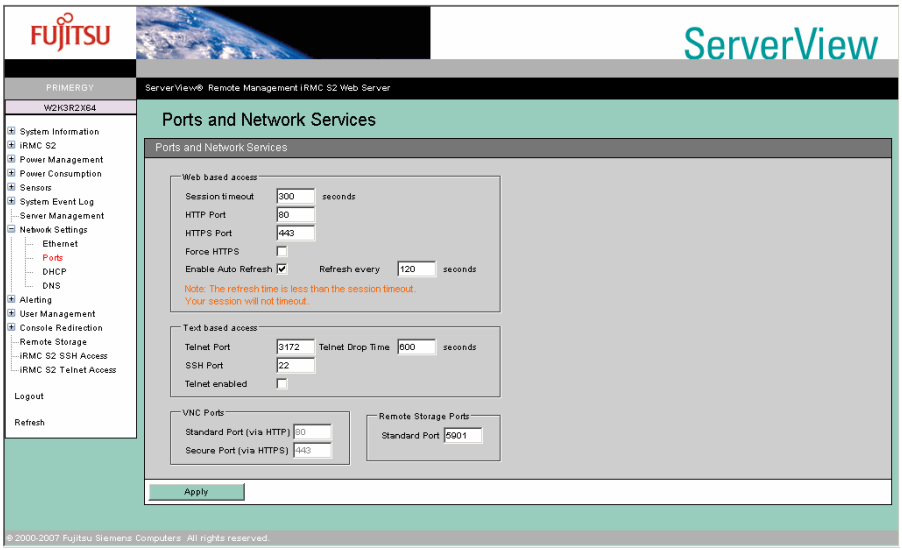


table: Description of each Item Displayed on the [Ports and Network Services] Screen

Item	Description
Web based access	
Session timeout	Specifies the automatic disconnection time (sec.) for the Web interface connection. The default is "300".
HTTP Port	Specifies the port number for accessing HTTP. The default is "80".
HTTPS Port	Specifies the port number for accessing HTTPS. The default is "443".
Force HTTPS	Check this to only enable the HTTPS connection. The default is [Disabled].
Enable Auto Refresh	Check this to enable the automatic refresh. The default is [Enabled].
Refresh every	Specifies the interval of time (sec.) for the automatic refresh. The default is "120".
Text based access	
Telnet Port	Specifies the port number for accessing Telnet. The default is "3172".
Telnet Drop Time	Specifies the auto disconnect time (in seconds) during Telnet connection. The default is "600".
SSH Port	Specifies the port number for accessing through SSH. The default is "22".
Telnet enabled	Check to enable Telnet connection. The default is [Enabled].

table: Description of each Item Displayed on the [Ports and Network Services] Screen

Item	Description
VNC Ports	
Standard Port	Displays the port number for performing the Video Redirection. • iRMC V1.66 or later The default is "5900" (changeable). • iRMC S2 The default is "80" (cooperated with HTTP port). • iRMC other than those above The default is "5900" (unchangeable).
Secure Port	Displays the port number for using SSH/SSL with the Video Redirection. • iRMC V1.66 or later The default is "5910" (changeable). • iRMC S2 The default is "443" (cooperated with HTTP port). • iRMC other than those above The default is "5910" (unchangeable).
Remote Storage Ports	
Standard Port	Displays the port number when connecting Remote Storage with the Video Redirection. The default is "5901".

POINT

- If the [Refresh every] time is set shorter than the [Session timeout] time, the automatic disconnection for the Web interface connection does not be performed.

4.8.3 DHCP Configuration

Configure the DHCP setting.

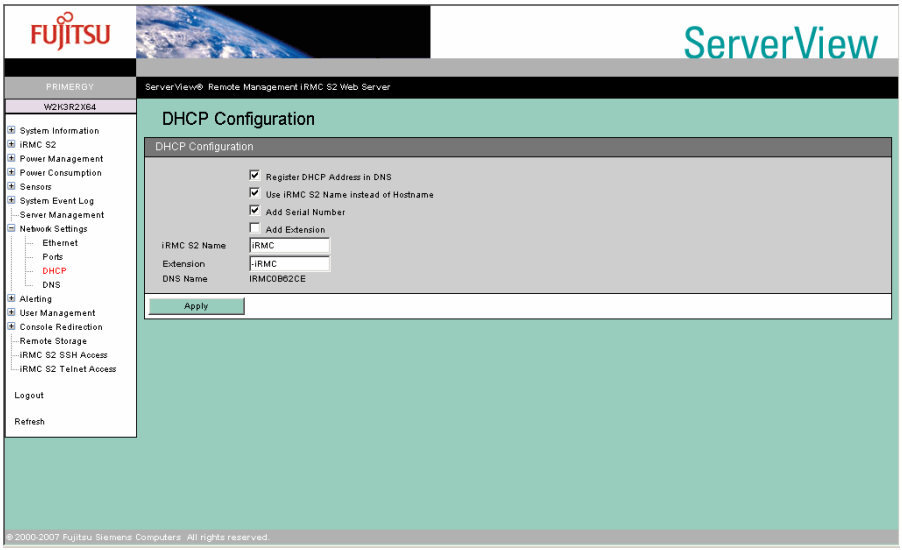


table: Description of each Item Displayed on the [DHCP Settings] Screen

Item	Description
Register DHCP Address in DNS	Enable this to register the address obtained by DHCP in DNS.
Use iRMC S2 Name instead of Hostname	Enable this to use the characters entered in [iRMC S2 Name] box as DNS registration name.
Add Serial Number	Enable this to add the serial number to the DNS registration name.
Add Extension	Enable this to add the characters entered in the [Extension] box to the end of the DNS registration name.
DNS Name	Displays the name registered in DNS.

POINT

- The set [DNS Name] is displayed at the top of the Web browser (title bar).

4.8.4 DNS Configuration

Configure the DNS setting.

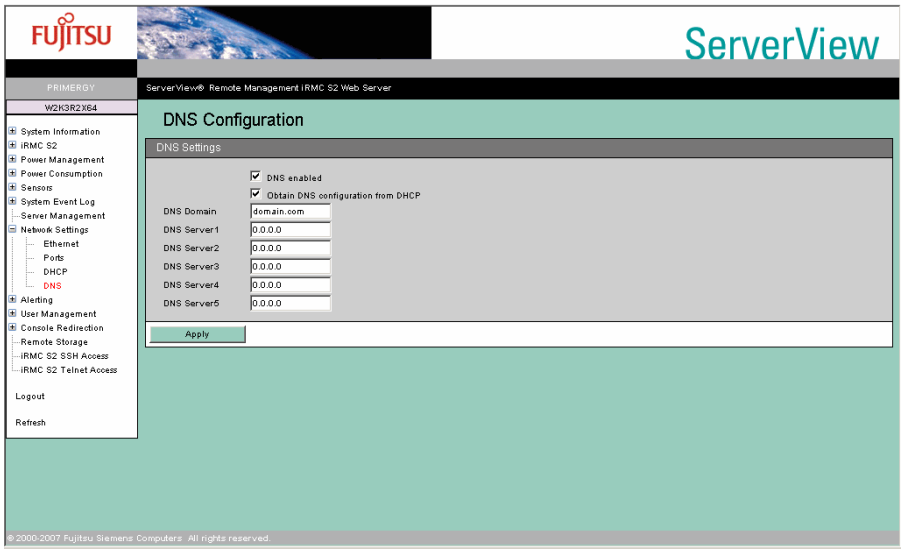


table: Description of each Item Displayed on the [DNS Configuration] Screen

Item	Description
DNS enabled	Enable this to use DNS for name resolution.
Obtain DNS configuration from DHCP	Enable this to obtain DNS settings from DHCP.
DNS Domain	Sets the DNS domain.
DNS Server 1 to 5	Sets the IP of the DNS servers 1 to 5.

4.9 Alerting

Set the SNMP trap and email. Also it is possible to send the SNMP trap as a test.

POINT

- Serial/Modem Alerting is not supported.

4.9.1 SNMP Trap Alerting

Configure SNMP trap alerting.

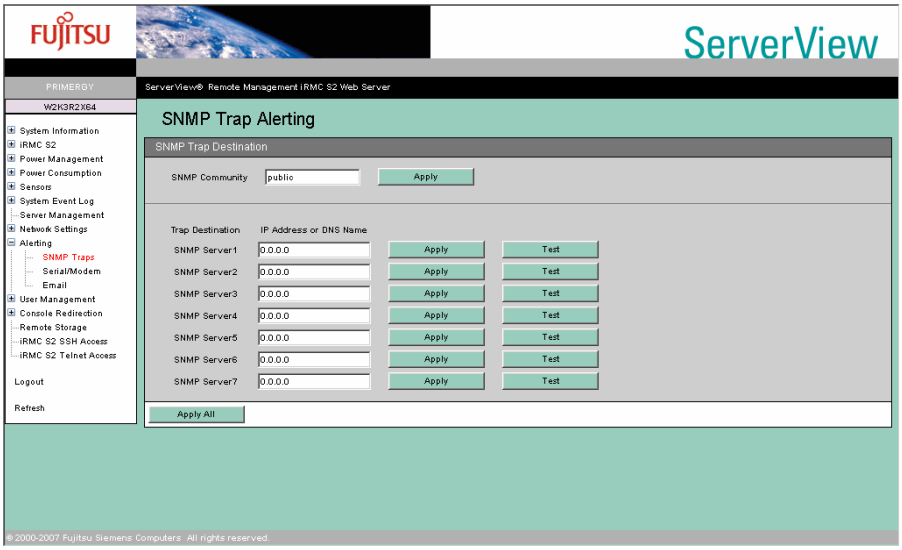


table: Description of each Item Displayed on the [SNMP Trap Alerting] Screen

Item	Description
SNMP Trap Destination	Enter each setting and click [Apply All] to apply all settings.
SNMP Community	Set the community name during SNMP trap alert. The default is "public". Enter the community name and click [Apply] to set. The SNMP receive community name must be the same in order for the receiving server to receive traps.
Trap Destination SNMP Server 1 to 7	Specify the IP address of the SNMP trap destination server (Trap receive server). Up to seven destination servers may be specified. Enter the IP address of the destination server and click [Apply] to apply. If DNS is enabled, the server name may be set instead of the IP. Click [Test] to send a test trap to the specified server.

4.9.2 Email Alerting

Configure email settings.

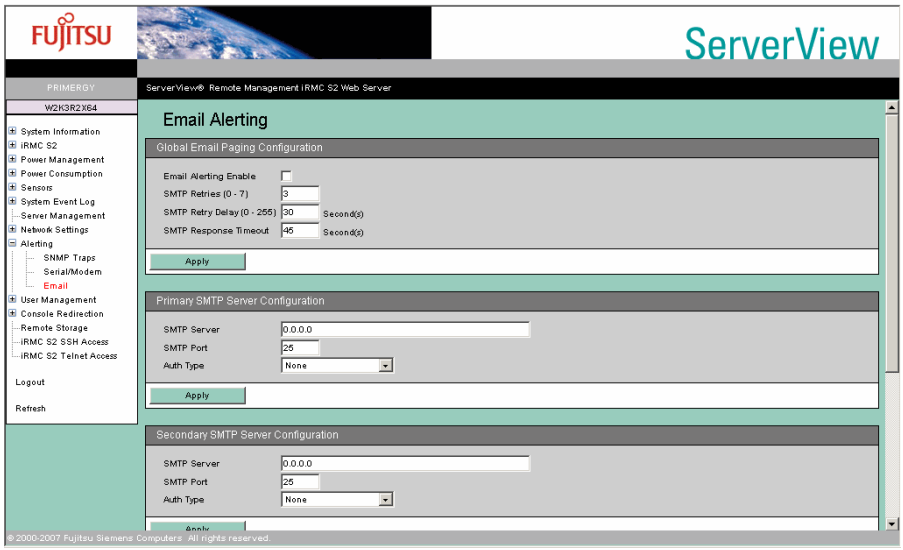


table: Description of each Item Displayed on the [Email Alerting] Screen

Item	Description
Global Email Paging Configuration	Sets the SMTP server settings.
Email Alerting Enable	Enables/disables the SMTP server settings.
SMTP Retries	Sets the retry count when there is an email transmission error.
SMTP Retry Delay	Sets the retry interval (in seconds).
SMTP Response Timeout	Sets the timeout for the SMTP server response (in seconds).
Primary SMTP Server Configuration	Configures the primary SMTP server.
SMTP Server	Sets the primary SMTP server IP (or the server name if DNS is enabled).
SMTP Port	Sets the port number used by the primary SMTP.
Auth Type	Sets the authorization type for the SMTP server. • NONE The SMTP server does not require user authorization. • SMTP AUTH(RFC2554) The SMTP server performs user authorization defined in RFC2554.
Secondary SMTP Server Configuration	Configures the secondary SMTP server.
SMTP Server	Sets the secondary SMTP server IP (or the server name if DNS is enabled).
SMTP Port	Sets the port number used by the secondary SMTP.
Auth Type	Sets the authorization type for the SMTP server. • NONE The SMTP server does not require user authorization. • SMTP AUTH(RFC2554) The SMTP server performs user authorization defined in RFC2554.

table: Description of each Item Displayed on the [Email Alerting] Screen

Item	Description
Mail Format dependend Configuration	Sets the outgoing email format.
From	Sets the sender name.
Subject	Sets the subject of the email. Note that this setting is only valid if it is in ITS format.
Message	Sets the body of the email. Note that this setting is only valid if it is in ITS format.
Admin.Name	Sets the source administrator name. Note that this setting is only valid if it is in ITS format.
Admin.Phone	Sets the source administrator phone number. Note that this setting is only valid if it is in ITS format.
REMCS Id	Sets the REMCS ID. Note that this setting is only valid if it is in REMCS format.
Server URL	Sets the source URL.

POINT

- Only the transmission format can be set in [Mail Format dependent Configuration]. The destination is specified and the transmission level is set in "4.10 User Management" (→pg.67).
- Email may not be delivered depending on the email software of the specified mail server or LAN line speed. In this case, change the value of [SMTP Response Timeout] of [Global Email Paging Configuration] to about 50 seconds.

4.10 User Management

Configure the settings to login the Remote Management Controller and Directory Service.

4.10.1 User Management

Set a user name and a password to log into the Remote Management Controller, the operation level for the user name, and the details for sending email.

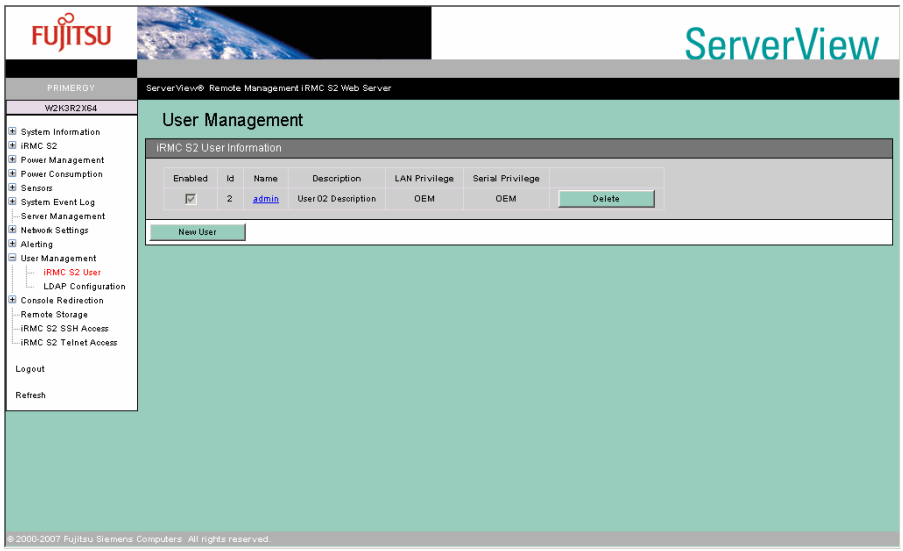


table: Description of each Item Displayed on the [User Management] Screen

Item	Description
Enabled	Displays whether the user is enabled or not.
Id	Displays the sequence number of the user.
Name	Displays the user name.
Description	Displays the user description.
LAN Privilege	Displays the access privilege via the LAN port.
Serial Privilege	Displays the access privilege via the serial port. Not supported.

Click [Delete] to delete the registered user. For the default user name, passwords, and privileges, refer to "2.1 Preparation" (→pg.14).

IMPORTANT

- In the following cases, the Web interface of the Remote Management Controller cannot be accessed, or not all of its functions are available, so that "Users" cannot be created or modified.
  - When all users are removed
  - When all users with Administrator/OEM privileges are removed or when their privileges are modified to be restricted

  In these cases, restore the original settings using the "Server Management Tools" supplied with the server as follows:
  1. Insert the "Server Management Tools" disk into the floppy disk drive and turn on the server.
  2. Start the Server Management Tools (IPMI-Tool).
     For information on how to start the Server Management Tools, refer to the "User's Guide" on the PRIMERGY Startup Disc supplied with the server.
  3. When the IPMI-Tool window is displayed, select [User Management].
  4. Select one of "1" through "16".
     To change the privileges for an existing User ID, proceed to Step 7.
  5. Enter [User Name], [Password], and [Confirm Password].
  6. Press the [F1] key (Set Value) to save the settings, and then press the [Esc] key to return to the [User Settings] window.
  7. Press the [F2] key (Configure Access) to select "2 802_3_LAN", and then select "5" (OEM) from [Privilege Limit].
  8. Press the [F1] key (Set Value) to save the settings.
     Press the [Esc] key several times to exit the IPMIview.

■ Changing User Information

Click a registered user name to change the registered settings.

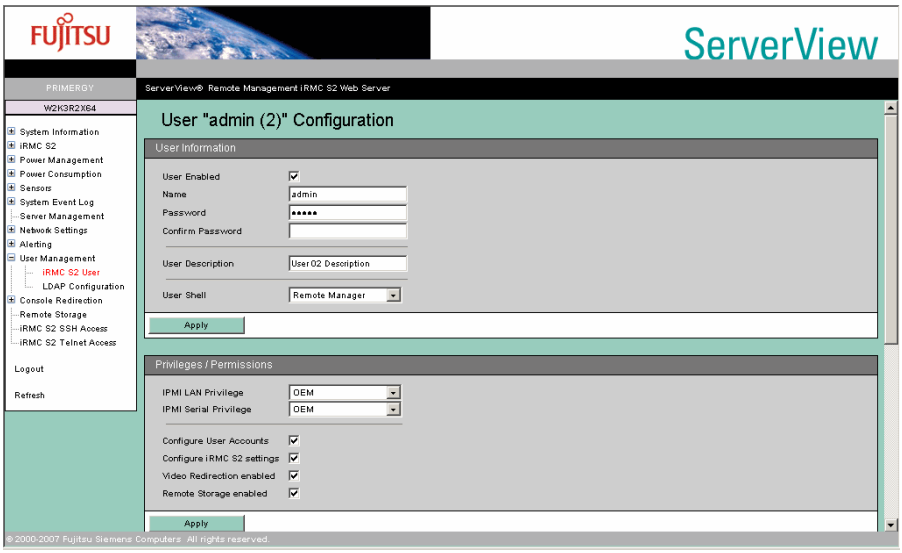


table: Description of each Item Displayed on the [User Configuration] Screen

Item	Description
User Information	Sets user information.
User Enabled	Enables/disables a user. This setting must be enabled.
Name	Sets a user ID.
Password	Sets a password.
Confirm Password	Reenter the password.
User Description	Enter the description of the user.
User Shell	Sets the Telnet connection operation level. Only Remote Manager is supported.
Privileges / Permissions	Sets the operation level.
IPMI LAN Privilege	Sets the LAN connection operation level. • USER Permission to only view most items. • Operator Permission to make changes in addition to USER privileges. • Administrator Permission to create users in addition to Operator privileges. • OEM Permission to use special Telnet commands in addition to Administrator privileges.
IPMI Serial Privilege	Sets the serial port connection operation level. Not supported.
Configure User Accounts	Authorizes to change the user account (V1.66A or later).
Configure iRMC S2 settings	Authorizes to change the iRMC settings (V1.66A or later).
Video Redirection enabled	Authorizes to use the Video Redirection (V1.66A or later).
Remote Storage enabled	Authorizes to use the Remote Storage (V1.66A or later).

IMPORTANT

- The limitation of the user account is as follows.
  - Number of the character for user ID
    16Byte
  - Number of the character for password
    15Byte

  The available character type is 7Bit ASCII code. However, do not use the symbols below because of the possibility of the trouble.
  > < " / ¥ = ! ? ; , &

■ Settings for Sending Email

Configure the setting of the email sending for each user.

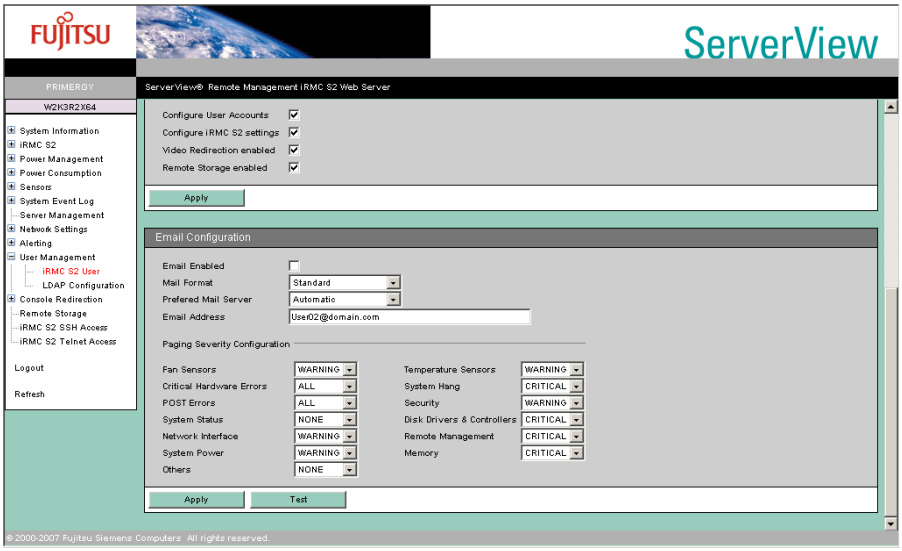


table: Description of each Item Displayed on the [Email Configuration] Screen

Item	Description
Email Enabled	Enable/disable the setting.
Mail Format	Select the outgoing email format. • Standard Normal email format. • ITS-Format ITS type email format. Not supported. • Fujitsu REMCS-Format REMCS type email format.
Preferred Mail Server	Selects the SMTP server to be used from the SMTP servers set in "4.9.2 Email Alerting" (→pg.65). • Automatic Selects the available SMTP server from the primary and secondary servers in this order. • Primary Selects the SMTP server specified in the Primary SMTP Server Configuration. • Secondary Selects the SMTP server specified in the Secondary SMTP Server Configuration.
Email Address	Sets the email destination address.
Paging Severity Configuration	Selects the event to send the email. Set this for each event. The options are as follows. • NONE No email is sent. • CRITICAL Send an email when a critical level event occurs. • WARNING Send an email when a warning or higher-level event occurs. • ALL Send an email for all event levels.
[Test]	Sends a test email.

■ Creating New User Information

Click [New User] to create a new user.

table: Description of each Item Displayed on the [New User Configuration] Screen

Item	Description
User Enabled	Enables/disables a user. This setting must be enabled.
Name	Sets a user ID.
Password	Sets a password.
Confirm Password	Reenter the password.
User Description	Enter the description of the user.
User Shell	Sets the Telnet connection operation level. Only Remote Manager is supported.
IPMI LAN Privilege	Sets the LAN connection operation level. • USER Permission to only view most items. • Operator Permission to make changes in addition to USER privileges. • Administrator Permission to create users in addition to Operator privileges. • OEM Permission to use special Telnet commands in addition to Administrator privileges.
IPMI Serial Privilege	Sets the serial port connection operation level. Not supported.
Configure User Accounts	Authorizes to change the user account (V1.66A or later).
Configure iRMC S2 settings	Authorizes to change the iRMC settings (V1.66A or later).
Video Redirection enabled	Authorizes to use the Video Redirection (V1.66A or later).
Remote Storage enabled	Authorizes to use the Remote Storage (V1.66A or later).

IMPORTANT

- The limitation of the user account is as follows.
  - Number of the character for user ID
    16Byte
  - Number of the character for password
    15Byte

  The available character type is 7Bit ASCII code. However, do not use the symbols below because of the possibility of the trouble.
  > < " / ¥ = ! ? ; , &
- When using the iRMC Telnet function from the RemoteControlService, the login user needs the following privileges:
  - IPMI LAN Privilege: Administrator
  - User Shell: Remote Manager

4.10.2 Directory Service Configuration

Configure the settings to use the Directory Service on the Remote Management Controller (V1.66A or later).

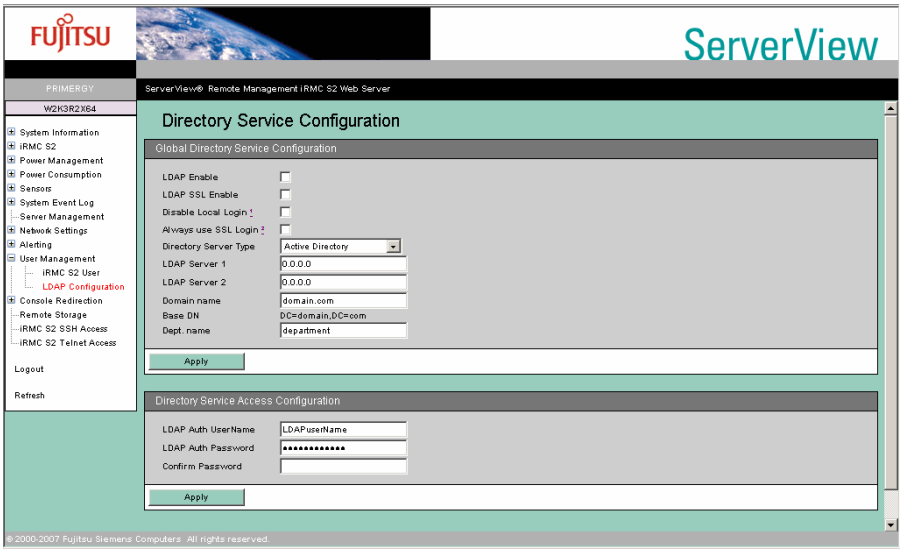


table: Description of each Item Displayed on the [Directory Service Configuration] Screen

Item		Description
Global Directory Service Configuration		
	LDAP Enable	Enables the Directory Service access.
	LDAP SSL Enable	Enables to access the Directory Service by SSL.
	Disable Local Login	Disables to login by local ID when the Directory Service is enabled.
	Always use SSL Login	Limits SSL connection to access iRMC when the Directory Service is enabled.
	Directory Server Type	Sets the Directory Service type. • Active Directory Directory Service type is "Active Directory". • Novell Directory Service type is "Novell". Not supported. • OpenLDAP Directory Service type is "OpenLDAP". Not supported.
	LDAP Server 1	Sets a server IP of the Directory Service.
	LDAP Server 2	Sets a server IP of the Directory Service.
	Domain name	Specifies a domain address to access the Directory Service.
	Base DN	Displays the set domain.
	Dept. name	Sets the department name of the Directory Service.
Directory Service Access Configuration		
	LDAP Auth UserName	Sets a user ID to access the Directory Service.
	LDAP Auth Password	Sets a password to access the Directory Service.
	Confirm Password	Reenter the password.

POINT

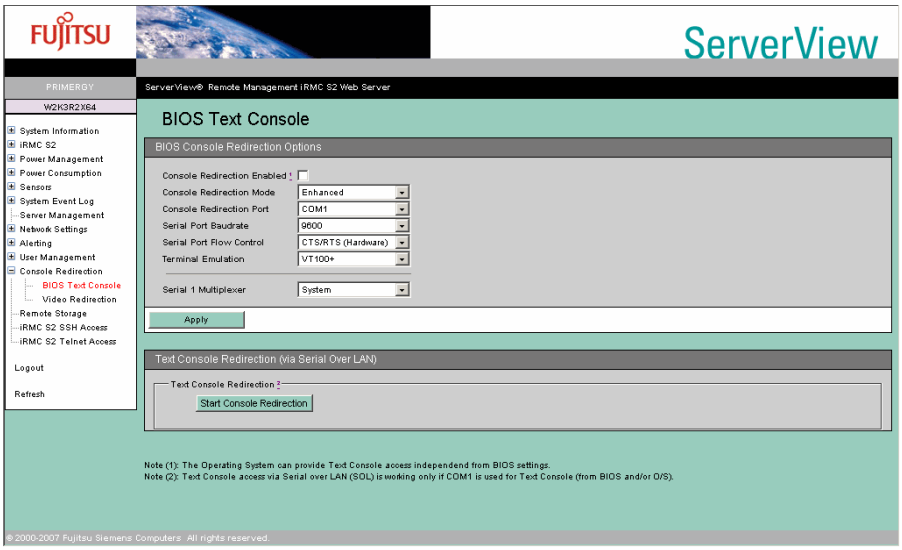
- To use LDAP with the Remote Management Controller, dedicated settings for the Remote Management Controller are necessary. For how to set, refer to "Appendix A Settings for using LDAP" (→pg.96).
- When you enable LDAP, SSL access is available for a login window.

4.11 Console Redirection

Configure and display the redirection settings for the console screen.

4.11.1 BIOS Text Console

Configure the text console redirection.



IMPORTANT

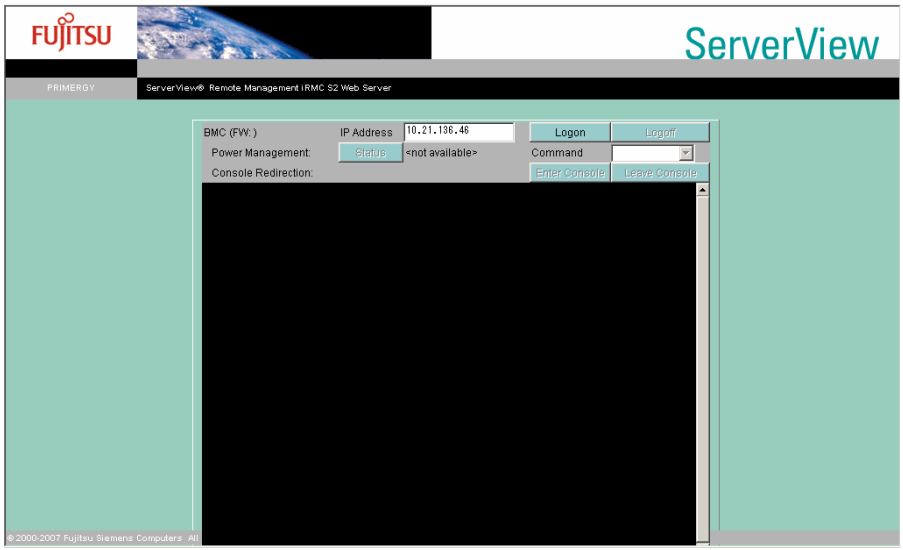
- Follow the settings below when you use the BIOS Text Console.

table: Setting Item for BIOS Text Console

Items	Settings
Console Redirection Enabled	Check this item
Console Redirection Mode	Enhanced
Console Redirection Port	Serial 1
Serial Port Baudrate	9600
Serial Port Flow Control	CTS/RTS (Hardware)
Terminal Emulation	VT100+
Serial 1 Multiplexer	System

■ Text Console Redirection

Click [Login], and click [Start Console Redirection] on the [BIOS Text Console] window to perform redirection of the text console remotely.



For the started window and the operation procedure, refer to "ServerView User's Guide (For RemoteControlService)".

POINT

- Text Console Redirection is a text-based Console Redirection. Redirection from POST to OS (Windows/Linux) boot (including the BIOS settings) can be performed.

4.11.2 Advanced Video Redirection

Perform console redirection remotely.

IMPORTANT

- A separate license key is necessary to use the Video Redirection function.
  For details on the license key and how to authorize the license, refer to the "Remote Management Controller Upgrade User's Guide".
  For how to set the license key, refer to "4.2.2 Setting License Key for Remote Management Controller" (→pg.30)
- The Video Redirection is disabled if "Video Redirection enabled" is not set on the user authority. Refer to "■ Changing User Information" (→pg.68) in "4.10.1 User Management" (→pg.67) (V1.66A or later).
- When a spanning tree is set to a LAN port which connects Remote Management Controller, Video Redirection and Remote Storage may be disconnected depending on the timing of power-on/off of the server. Therefore, do not set a spanning tree.
  When LAN of the server and LAN of Management Controller use the same port, LAN of the server is initialized when you power on/off the server, and a spanning tree is reconstructed at the same time.
  It is required more than 30 seconds to reconstruct the spanning tree. Because LAN of Remote Management Controller cannot communicate during the reconstruction, Video Redirection and Remote Storage are disconnected.

When the license is authorized, the following window appears.

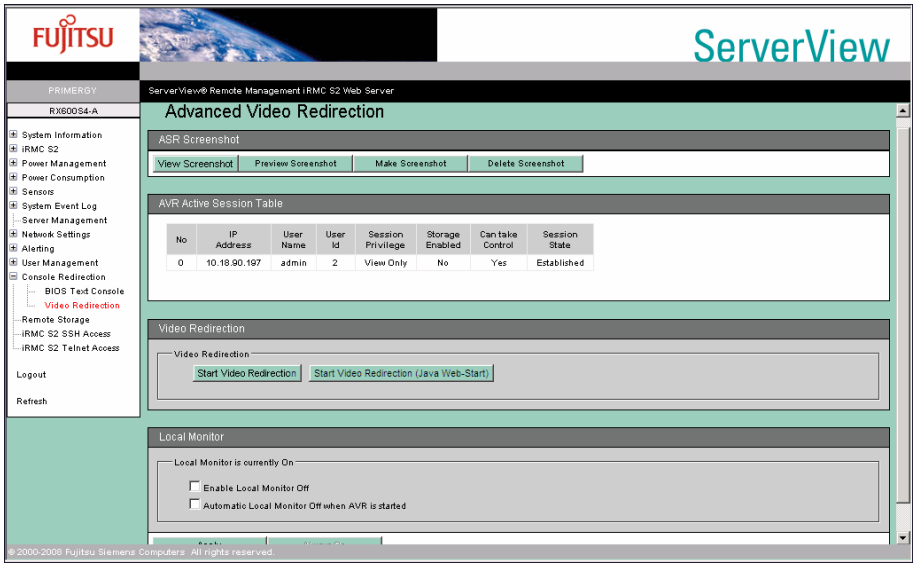


table: Description of each Item Displayed on the [Advanced Video Redirection] Screen

Item	Description
ASR Screenshot	If Watchdog Timeout occurred, a screenshot of that time will be taken automatically and saved in Remote Management Controller. Not supported (V3.32A or later only).
[View Screenshot]	Displays the saved screenshot on another window. This button is displayed only when the screenshot is saved. Not supported. →"● View Screenshot" (pg.77)
[Preview Screenshot]	Displays a preview of the saved screenshot on the window. This button is displayed only when the screenshot is saved. Not supported. →"● Preview Screenshot" (pg.78)
[Make Screenshot]	Takes a screenshot at the moment you click this button. Not supported.
[Delete Screenshot]	Deletes the saved screenshot. This button is displayed only when the screenshot is saved. Not supported.
AVR Active Session Table	Displays information of the machine connected to Advanced Video Redirection. Undisplayed when it is disconnected.
ID	Sequence number of the connected machine.
IP Address	IP address of the connected machine.
User Name	Login user name of the Remote Service Controller.
User Id	ID number of the login user name. Refer to "4.10.1 User Management" (→pg.67).
Session Privilege	Operation modes of the Advanced Video Redirection. • View Only: view mode • Full Control: operable mode
Storage enabled	The status of the Remote Storage connection.

table: Description of each Item Displayed on the [Advanced Video Redirection] Screen

Item	Description
Can take Control	Whether Advanced Video Redirection can be controlled or not. • YES: Enable to control. • NO: Disable to control.
Session State	The status of the Advanced Video Redirection connection.
VideoRedirection	
[Start Video Redirection]	Starts the Advanced Video Redirection.
[Start Video Redirection (Java Web-Start)]	Without displaying a loading window of java, starts the Advanced Video Redirection. Not supported (V3.32A or later only).
Local Monitor	Control the server monitor output. Undisplayed when the monitor output cannot be controlled.
Enable Local Monitor Off	Check this to disable the monitor output of the server. Checking this item turns [Always On] to [Turn Off]/[Turn On]. [Turn Off]: Enables the monitor output of the server. [Turn On]: Disables the monitor output of the server.
Automatic Local Monitor Off when AVR is active	Disables the monitor output of the server automatically at the Advanced Video Redirection connection (V1.70A or later).

POINT

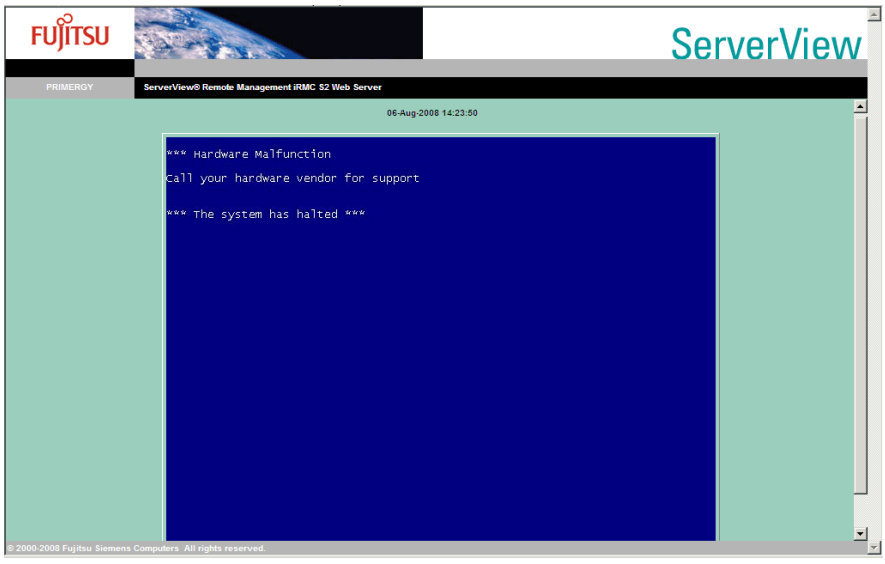
- When checking [Enable Local Monitor Off], you can also enable or disable the monitor output of the server from the [Extras] menu of the [VideoRedirection] window.

IMPORTANT

- The system identification LED on the front of the server blinks with Local Monitor OFF state ([Enable Local Monitor Off] is checked). In this state, the system identification LED keeps blinking even if it is operated with system identification LED button.

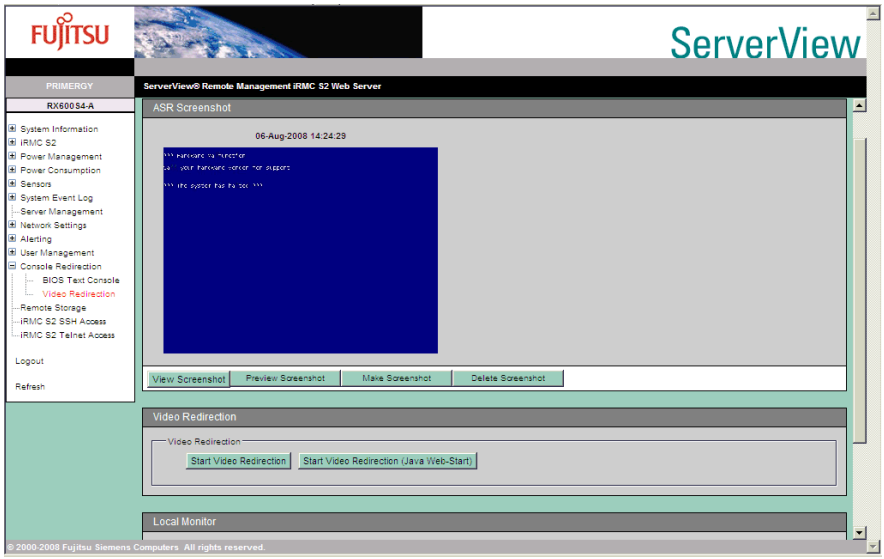
● View Screenshot

When the screenshot is saved, clicking [View Screenshot] displays the screenshot on another window. Close the browser to exit.



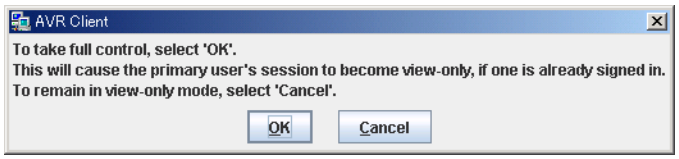
Preview Screenshot

When the screenshot is saved, clicking [Preview Screenshot] displays a preview of the screenshot on the same window. The preview is automatically closed in ten seconds.



Video Redirection

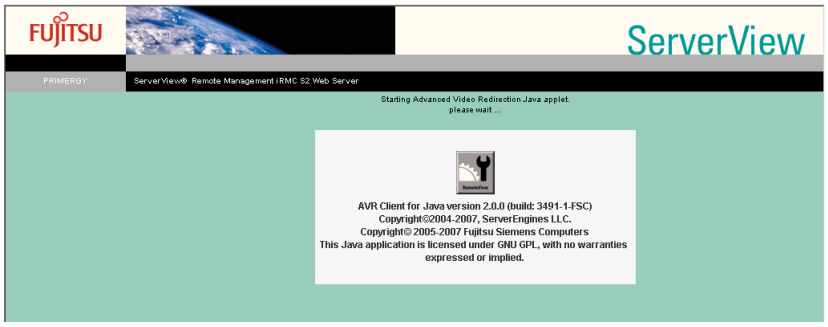
When clicking [Start Video Redirection], the Video Redirection window opens.
Initially, the following screen is displayed.



When using a mouse or a keyboard, click [OK] to enter the Full Control mode. If you click [Cancel], the View mode is applied and you cannot use a mouse or a keyboard. The console is only displayed.

POINT

- Because the Video Redirection function uses Java, the following window opens. However, it does not close automatically when you exit the Video Redirection. Close it manually.

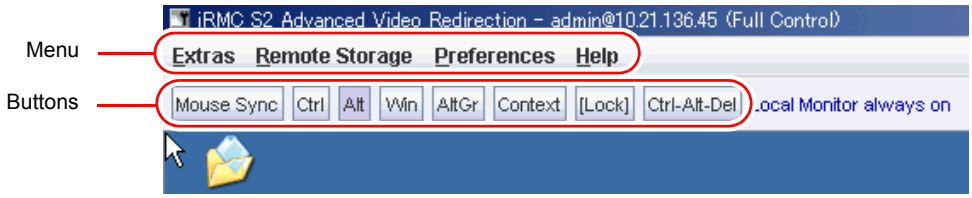


IMPORTANT

- The Video Redirection does not support the following display mode:
  - The version earlier than iRMC S2
    Resolution that exceeds 1024 × 768, and 24-bit/32-bit color mode.
  - iRMC S2 or later version
    24bit/32bit color mode by resolution of 1280 × 1024 or more.
    Resolution that exceeds 1600 × 1200.
  - Using not standard VGA driver
- When the Video Redirection is started repeatedly without closing the Web interface of the Remote Management Controller, Java error may occur or the Video Redirection may not make a response. In this case, close all browsers and start the Web interface of the Remote Management Controller again.
- When you enable a mouse and a keyboard with the Video Redirection, the server recognizes the mouse and the keyboard as of USB connection. When USB connection is not available (such as no USB driver exists) because of the server settings, you cannot use a mouse and a keyboard with the Video Redirection.

4.11.3 Video Redirection Window Layout

When the Video Redirection is started, the following window appears.
At the top of the window, there is a menu with buttons below.



■ Video Redirection Menu

table: Video Redirection Menu

Item		Description
Extras		
	Virtual Keyboard...	Displays the graphical keyboard. →"4.11.6 Graphical Keyboard" (pg.86)
	Update Local Monitor State	Reacquires the monitor output state of the server. Current monitor output state is displayed in blue to the right of [Lock] on the [VideoRedirection] window.
	Turn Local Monitor on	Enables the monitor output of the server.
	Turn Local Monitor off	Disables the monitor output of the server.
	Refresh Screen	Refreshes the Redirection window.
	Take Full Control...	Changes the mode to the Full Control mode. (Only effective in the View mode)
	Disconnect Session...	Disconnects the Video Redirection. (Not supported)
	Relinquish Full Control...	Changes the mode to the View mode. (Only effective in the Full Control mode)
	Exit	Exits the Video Redirection.

table: Video Redirection Menu

Item	Description
Remote Storage	Sets the Remote Storage connection settings. →"4.11.5 Remote Storage Connection" (pg.83)
Preferences	Sets the mouse, keyboard, and log settings. →"4.11.7 Mouse and Keyboard Settings" (pg.87)
Help	Displays the session status and the Video Redirection version.

IMPORTANT

- The following 3 items on [Extras] menu, [Update Local Monitor State], [Turn Local Monitor on] and [Turn Local Monitor off], are displayed only on the models of which the monitor output can be controlled.

■ Video Redirection Buttons

table: Video Redirection Button

Button	Description
[Mouse Sync]	Synchronizes a mouse cursor position of the server.
[Ctrl]	Equivalent to the [Ctrl] keys.
[Alt]	Equivalent to the [Alt] keys.
[Win]	Equivalent to the [Windows] keys.
[AltGr]	Equivalent to the [AltGr] key in the European key arrangement. Not supported.
[Context]	Displays the right mouse click menu.
[Lock]	Holds the status of pressing the [Ctrl], [Alt], or [Windows] key. These keys are not automatically released. To release them, click the [Lock] button again.
[Ctrl-Alt-Del]	Equivalent to tap the [Ctrl], [Alt], [Del] keys at the same time.

POINT

- To log on to Windows, click [Ctrl-Alt-Del].

IMPORTANT

- When changing the URL to connect other Remote Management Controller without closing the Web interface of the Remote Management Controller, [Remote Storage] menu of the Video Redirection is not displayed. To connect other Remote Management Controller, close the browser once. If Remote Storage is unavailable, the message appears to indicate that.

4.11.4 Enabling Mouse Cursor Synchronization

Click [Mouse Sync] to synchronize a mouse cursor.
If the mouse cursor does not synchronize when you click [Mouse Sync], configure the following settings in the server for the Video Redirection.

■ For Windows (except for Server Core)

● Display Settings

1. Open Control Panel and double-click the [Display] icon.
2. Click [Advanced] in the [Settings] tab.
3. Slide [Hardware Accelerator] in the [Troubleshooting] tab one-notch left from "Maximum" and click [OK].

● Mouse Settings

1. Open Control Panel and double-click the [Mouse] icon.
2. Set the mouse action.
   For Windows Server 2003 / Windows Server 2008
   When [Enhanced pointer precision] is checked on the [Pointer Option] tab, uncheck it.
   For Windows 2000 Server
   Set the [Acceleration] item to "None" in the [Motion] tab.
3. Synchronize the mouse cursor clicking [Mouse Sync] in the Video Redirection.
   Adjust the slider on [Select a pointer speed] if the mouse cursor is getting out of alignment.

■ For Windows (Server Core)

1. Log in as administrator or as a user with Administrator privileges.
2. Exit all running applications.
3. Insert the PRIMERGY Startup Disc and run the following configuration tool.
   [CD/DVD Drive]
   :\PROGRAMS\Japanese2\Svmanage\Common\Tools\iRMC_Core\MouseSync.bat

■ For Linux

● For RHEL-AS3(x86)/RHEL-AS3(IPF)/RHEL-ES3(x86)

1. Use the editor such as vi to open the X Window configuration file.

```
>vi /etc/X11/XF86Config
```

2 Change the following two lines.

```
Identifier  "Mouse0"          --> Identifier  Change to "DevInputMice"
Driver      "mouse"
Option      "Protocol" "PS/2"

Identifier  "DevInputMice"    --> Identifier  Change to "Mouse0"
Driver      "mouse"
Option       "Protocol" "IMPS/2"
```

3 Close the file and restart the X Window.

4 Start [Main Menu] - [Preferences] - [Mouse] and click the [Motion] tab to adjust [Acceleration].

The amount in which the slider is moved depends on the machine type where the Web interface starts and the server type.

- When the cursor of the server does not catch up with the cursor of the Video Redirection, move the slider to [Slow].
- When the cursor of the server moves faster than the cursor of the Video Redirection, move the slider to [Fast].

- **For products except for RHEL-AS3(x86)/RHEL-AS3(IPF)/RHEL-ES3(x86)**

1 Execute the following command.

```
>xset m 0 0
```

- **For SUSE Linux**

1 When there are two or more mice installed, remove all mice except the first one.

1. Run [sax32] from the menu.
2. Select [Input device] – [mouse] and remove all mice except the first one.

2 Select [Control Center] – [Input device] – [mouse] from the Main menu.

3 Set the [Advance Pointer Accelerator] value to "1x".

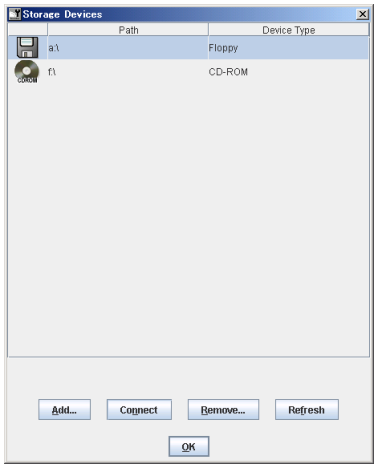
IMPORTANT

- Restrictions on synchronizing the mouse cursor on RHEL-AS3(x86) / RHEL-AS3(IPF) / RHEL-ES3(x86) are as follows.
  - Abnormality may occur when the gpm service is used.
  - If the settings for the mouse of X-Window (including the redhat-config-mouse command) are performed, the mouse of the server cannot be used.

  Even if the Video Redirection is closed, the settings are taken over. Restore the settings when the Video Redirection is closed, and restart X-Window.
- The setting for the mouse synchronized action is used only on the OS above.
  If the software which controls the mouse action is active, sometimes mouse cursor cannot be synchronized.

4.11.5 Remote Storage Connection

Select [Remote Storage] from the "■ Video Redirection Menu" (→pg.79) to execute a Remote Storage connection. The Remote Storage connection is a function to connect the external memory of the machine that has the Web interface as a remote connected device of the object server of the Video Redirection. Select the desired device and click [Connect] to connect to the server used for the Video Redirection.



IMPORTANT

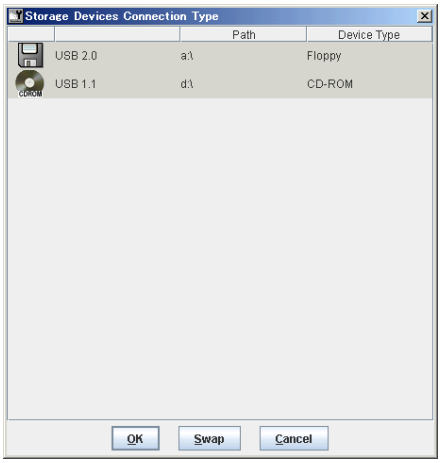
- To use a function of the Remote Storage connection, the license key is required. For details on the license key and how to authorize the license, refer to the "Remote Management Controller Upgrade User's Guide".
- The Remote Storage connection is available to the following devices. However, the writing function in DVD drive is not supported.
  - Internal floppy disk drive
  - ATAPI CD-ROM drive
  - ATAPI DVD drive
  - USB floppy disk drive
  - USB CD-ROM drive
- The Remote Storage connection is automatically released when exiting VideoRedirection.
- Devices connected with the Remote Storage are recognized as the USB connected devices by the server. When USB connection is not available (such as no USB driver exists), they cannot be used.
- Connect up to two devices to the server with the Remote Storage connection.

POINT

- To disconnect a device, select the desired device and click [Disconnect].
- If there are devices not displayed in the Remote Storage list, click [Refresh]. The devices are searched once more.
- To add a device not displayed in the window (such as ImageFile), click [Browse] and specify.
- Floppy disk drives and CD-ROM drives are not displayed in the list unless a medium is inserted.
- Remote devices cannot be connected additionally or disconnected individually.
- If the BIOS supports USB Legacy, you can boot from the media connected by the Remote Storage. Use the BIOS Setup Utility to set [Multiboot] and [USB Legacy Support] to [Enabled] and set the media connected by the Remote Storage to the top of the BOOT order.

● To swap the USB connection when two devices connected by Remote Storage connection at a time ([iRMC S2] only)

When you connected two devices with Remote Storage at a time, USB1.1 and USB2.0 are used at the server side.
A window to choose the connection appears. Choose which USB connection is used for which device.



1 Click [Swap].
Swap the connection ([USB 1.1] and [USB 2.0]) of two devices.

2 Click [OK].

■ To connect two devices by Red Hat Linux Remote Storage connection at a time

POINT

- Refer to the Linux command manual for the details of the each command.

● For the products except for RHEL5(x86), RHEL5(Intel64)

Only one device is available for the Remote Storage connection to the machine except RHEL5(x86) and RHEL5(Intel64) by default. However, the following action enables to connect multiple devices.

Example: To connect floppy disk drive and CD-ROM drive at the same time (FPD:No0, CD-ROM:No.1)

1 Perform the Remote connection on the client side.

1. Click [Remote Storage] from "■ Video Redirection Menu" (→pg.79).
2. Select floppy disk drive and CD-ROM drive on the displayed screen and click [Connect].

2 Execute the following command on the RedHat screen (Video Redirection) of the server.

```
cat /proc/scsi/scsi
```

The information about connected device is displayed.

3 Note the Host name, Channel, id and Lun on the settings of the first device (FPD) connected by the Remote Storage.
(Example: Host name:scsi3 Channel:0 id:0 Lun:0)

4 Execute the following command.

```
echo "scsi add-single-device A B C D" >/proc/scsi/scsi
```

Set as below for the A, B, C, D above.

table: Setting for the English Letters above

Letter	Meaning	Description
A	scsi number of the Host name	If the Host name is scsi3, A is 3. It changes every connection.
B	Channel number	Set the same Channel number as the first Remote Storage connection.
C	id number	Set the same id number as the Remote Storage connection.
D	Lun number	Set the number which is "Lun number of the first Remote Storage connection" plus 1.

Example: In the case, Host name:scsi3 Channel:0 id:0 Lun:0

```
echo "scsi add-single-device 3 0 0 1" >/proc/scsi/scsi
```

5 Execute the following command.

```
cat /proc/scsi/scsi
```

Make sure CDROM is set on the additional setting.

6 Execute the following command, and make sure cdrom is added on the media folder.

```
ls /media
```

There is no problem if there is cdrom1.

7 Execute the following command, and make sure to put in RemoteCDROM.

```
cd /media/cdrom1
```

8 Execute the following command to delete the setting.
If a Remote Storage connection is terminated without deleting the setting, the setting of the cdrom1 remains. Therefore, cdrom2 is used in the next connection.

```
echo "scsi remove-single-device A B C D" >/proc/scsi/scsi
```

Set as "table: Setting for the English Letters above" (→pg.85) for the A, B, C, D above.

9 Execute the following command to make sure the setting is deleted.

```
cat /proc/scsi/scsi
```

10 Disconnect the Remote Storage connection on the client.

Click [Disconnect] on the Web console screen.

- **For RHEL5(x86) and RHEL5(Intel64)**

RHEL5(x86) and RHEL5(Intel64) are able to connect as themselves, but it is not mounted to OS automatically.

Use the mount command to mount when using the Remote Storage.

- For floppy disk

```
mount /dev/hdb  /media/floppy
```

- For CD-ROM

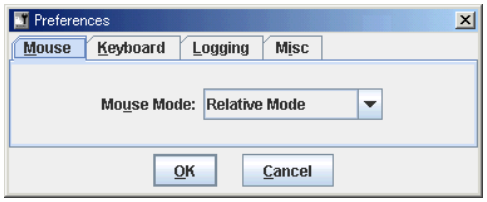
```
mount /dev/scd0  /media/cdrom
```

4.11.6 Graphical Keyboard

Select [Extras] and then [Virtual Keyboard...] from the "■ Video Redirection Menu" (→pg.79) to display a graphical keyboard in the Video Redirection window. Click the displayed keyboard with the mouse to send the corresponding key to the server.

4.11.7 Mouse and Keyboard Settings

Select [Preferences] and then [Preferences...] from the "■ Video Redirection Menu" (→pg.79) to set the mouse mode, keyboard key arrangement, log collection, and window settings.
After changing the settings and clicking [OK], you are prompted to enter the user name and the password. Enter your user name and password and click [Yes] to apply the setting.



IMPORTANT

- When performing the Video Redirection on the server side with the Num Lock On state, the client side also turns to Num Lock ON.

■ Mouse Tab

This tab is used to set the mouse mode.

table: Mouse Setting

Item		Description
Mouse Mode:		
	Hide Mode (Relative)	Disables the display of the mouse cursor at the operator side (in Relative Mode).
	Absolute Mode	X axis, Y axis address movement mode.
	Relative Mode	Relative address movement mode.

POINT

- To display the mouse cursor of the client side after selecting [Hide Mode (Relative)], press the [Ctrl] + [Alt] + [0] keys at the same time on the client's keyboard.
  For the [0] key, use the key below the function keys instead of using a numeric keypad.

■ Keyboard Tab

This is used to set the keyboard key arrangement and connection type.

table: Keyboard Setting

Item	Description
Language:	Sets the keyboard layout.

■ Logging Tab

This is used to create the Video Redirection log.

table: Log Creation Method

Item		Description
Global Logging		Specifies the output path for the logs.
	None	Does not output a log file.
	Console	Outputs the logs to the Java Console.
	Log File	Outputs the logs into the specified file.
	Console and Log File	Outputs the logs to the Java Console and to the specified file.
Console Log File		Specifies the log to be output.

■ Misc Tab

This is used to set the other debug items for Advanced Video Redirection (V1.66A or later).

table: Debug Item Setting

Item	Description
Overwrite Native Library	Allows DLL to overwrite (Not supported).
Hardware Compression	Allows to compress by hardware (Not supported).

4.12 Remote Storage

Display the Remote Storage status.

This function displays the status of the remote devices specified in the Video Redirection.

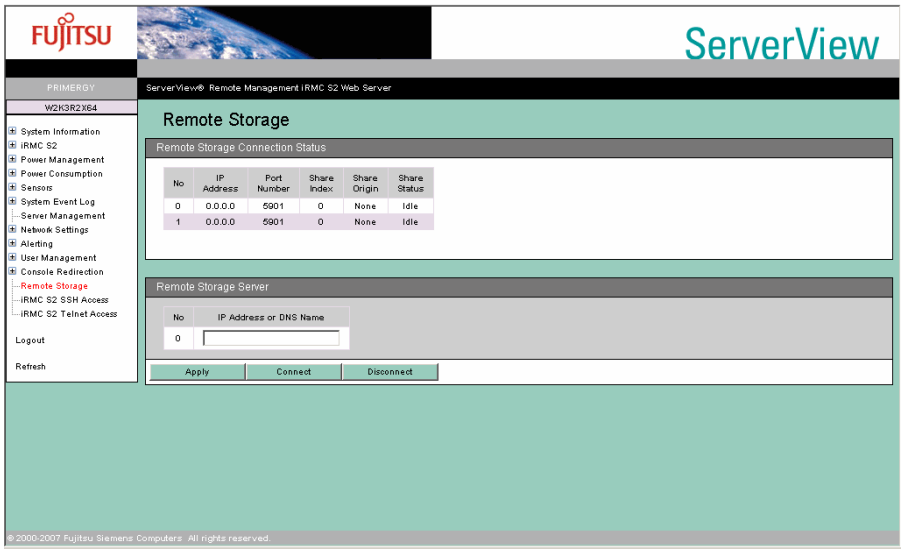


table: Description of each Item Displayed on the [Remote Storage] Screen

Item		Description
Remote Storage Connection Status		
	No	Sequential number of the remote device.
	IP Address	IP address of the server or PC where the device is installed.
	Port Number	Port number that the remote device uses for connection/communication.
	Share Index	Number assigned to the connection.
	Share Origin	Status of the device at the server or PC where the device is installed. • None :Not connectable (Unfound) • Applet :Connectable (Found)
	Share Status	Current status of connection. • Idle: Not connected • Connected: Connected
Remote Storage Server		Not supported.
	No	Sequential number of the Remote Storage server. Not supported.
	IP Address or DNS Name	Specifies the IP address or the registered DNS name of the storage server which uses the remote connection. Not supported.
	[Apply]	Saves the Remote Image Server settings. Not supported.
	[Connect]	Connects the target image server. Not supported.
	[Disconnect]	Disconnects the connected image server. Not supported.

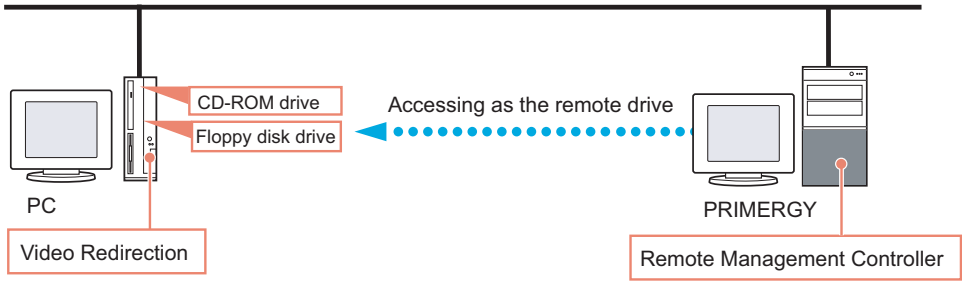
POINT

- The Remote Storage connection cannot be performed on this screen. The connection can only be performed in the Video Redirection.
- The connection of the Remote Storage is disconnected by clicking [Disconnect].
- The Video Redirection can be performed only when "Remote Storage enabled" is set on the user authority. Refer to "■ Changing User Information" (→pg.68) in "4.10.1 User Management" (→pg.67) (V1.66A or later).

■ Difference between Remote Storage Connection and Remote Storage Server

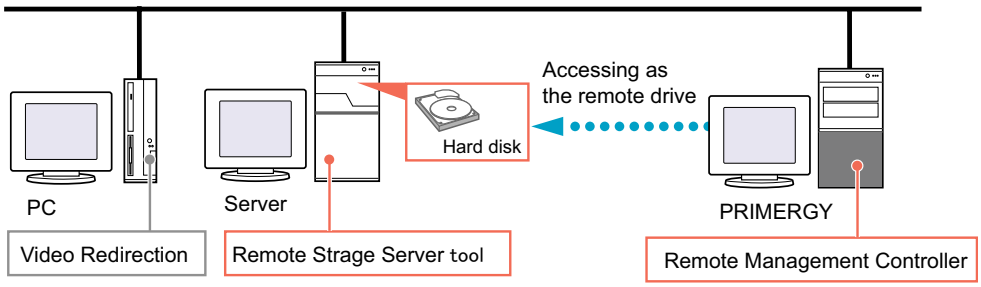
● Remote Storage Connection

Remotely connects a peripheral (such as CD-ROM), which is connected to the PC or server that is performing Video Redirection, to a target server on which the Remote Management Controller is installed.
For Video Redirection, refer to "4.11.2 Advanced Video Redirection" (→pg.75).



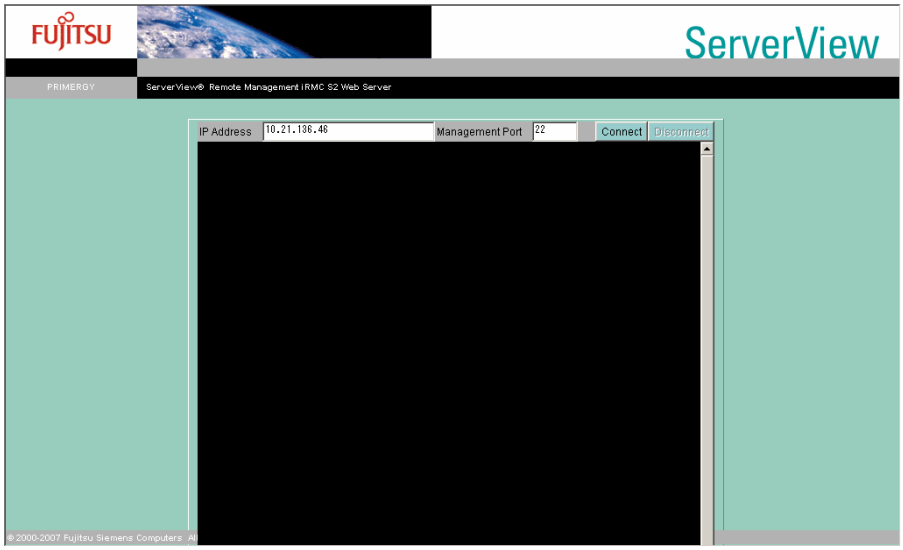
● Remote Storage Server (Not supported)

Remotely connects a hard disk drive, which "Remote Storage Server" tool is running, to a target server. "Remote Storage Server" tool is not provided. This function is not supported.



4.13 iRMC S2 SSH Access

Perform SSH connection to the Remote Management Controller.



4.13.1 How to Connect and Close iRMC

- **How to Connect**

  1. Click [Connect].
     The Remote Management Controller is connected.

  2. Enter the Remote Management Controller connection ID and the password.

- **How to Close**

  1. Click [Disconnect].
     The Remote Management Controller is disconnected.
     Clicking [Disconnect] without selecting [quit] from the main menu disconnects automatically.
     The disconnection does not clear the screen. To clear the screen, choose [shutdown] in the [file] menu.

4.13.2 Main Menu

The main menu of the Remote Management Controller is shown below.
The menu depends on a machine type and an applicable menu will appear. If the number or character on the left of each item is entered, the corresponding item is executed or its submenu items appear. The unavailable functions are marked (*). If the [0] key is pressed, the higher menu would appear. If the [0] key is pressed while the main menu is displayed, the connection will be turned off.

table: Main Menu of the Remote Management Controller

Menu items	Description
System Information	Not supported.
Power Management	Controls the server power. Displays the power control menu if selected.
Enclosure Information	Not supported.
Service Processor	Not supported.
Change password	Not supported.
Console Redirection (EMS/ASC)	Select when redirecting the console.
Start a Command Line shell..	Not supported.

■ PowerManagement

table: Menu of the Power Management

Menu items	Description
Immediate Power Off	Shuts down the server power, regardless of the OS status.
Immediate Reset	Reboots the server, regardless of the OS status.
Power Cycle	Powers off the server and powers on it again, regardless of the OS status.
Power On	Turns the server on.
Graceful Power Off (Shutdown)	Shuts down the server. Remote Management Controller sends a shutdown request to the ServerView Agent in the server.
Graceful Reset (Reboot)	Reboots the server. Remote Management Controller sends a reset request to the ServerView Agent in the server.
Raise NMI (via iRMC S2)	Sends NMI signals to the server. Selectable only in the server used NMI (V1.66A or later).

■ Console Redirection (EMS/ASC)

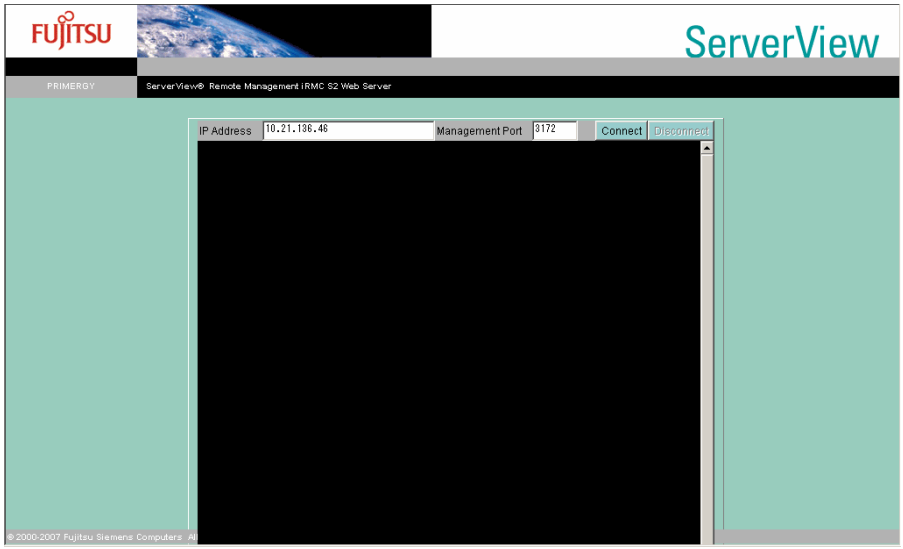
The window and key board operation of the server can be redirected to the remote console by console redirection of Remote Management Controller. When the console redirection is selected, the window of the server is forwarded to the remote manager window. The data which is input from the keyboard is sent to the key board controller of the server.
The following operations can be performed by the console redirection.

- Displaying window during POST
- BIOS setup

The console redirection closes when entering tilde (~) and period (.), or either [Esc] or [(] within two seconds in quick succession.

4.14 iRMC S2 Telnet Access

Perform Telnet connection to the Remote Management Controller.



The procedures for connecting, closing, and main menu are the same as that of in "4.13 iRMC S2 SSH Access" (→pg.91). Refer to both "4.13.1 How to Connect and Close iRMC" (→pg.91) and "4.13.2 Main Menu" (→pg.92).

POINT

- To perform Telnet connection to the Remote Management Controller, enable the Telnet on the Ports of the [Network Settings] window in advance. Refer to "4.8 Network Settings" (→pg.58).

4.15 Session Logout

Log out from the Remote Management Controller Web interface.

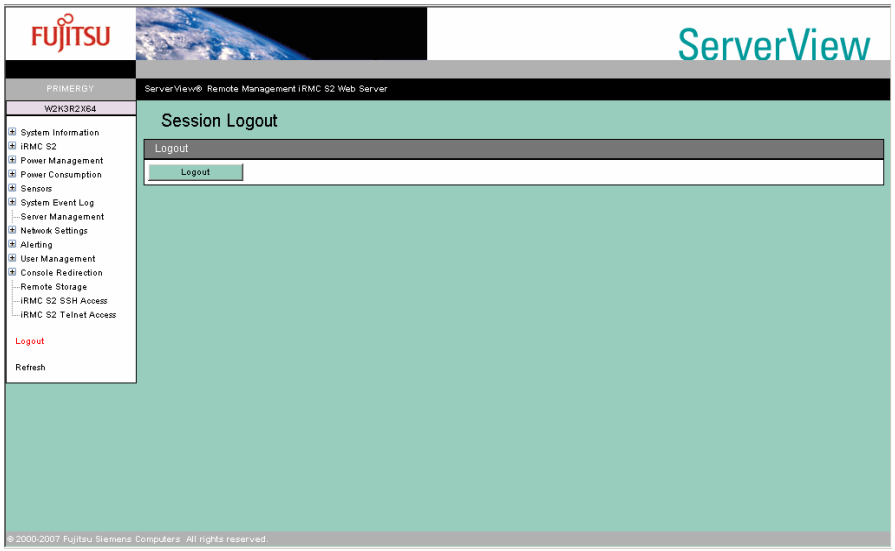


table: Description of Item Displayed on the [Session Logout] Screen

Button	Description
[Logout]	When clicking [Logout], exits the session with the Remote Management Controller Web interface after confirming the logout once. [Logout] turns to [Login] after logging out. Click [Login] to login again.

POINT

- The browser does not close by logging out using [Logout].

Appendix

This chapter explains about the settings to use LDAP with the Remote Management Controller.

A Settings for using LDAP

With the Remote Management Controller, you can use the Directory Service which uses LDAP (Lightweight Directory Access Protocol).
When using it, dedicated settings of the Remote Management Controller for the Directory Service are necessary.

■ Required Settings for the Use of Directory Service

The following settings are required to use the Directory Service.

- Organizational Unit "iRMCgroups" is required under the domain.
- Organizational Unit "Departments" and "Shell" are required under the "iRMCgroups".
- Organizational Unit of an administration name (arbitrary name) is required under the "Departments".
- A security group to set the Remote Management Controller access privilege is required under the administration name.
  To log into the Remote Management Controller using LDAP, the user (ID) needs to belong to this security group.

IMPORTANT

- For the settings, knowledge about the Directory Service is needed. Only a person who has adequate knowledge of the Directory Service should perform the operation.

■ Setting Directory Service (for Active Directory)

The following is the procedure using the example of "Active Directory" which is the standard Directory Service of Windows.
To enable the Remote Management Controller to access the Directory Service and use it, configure the following settings for Active Directory (Directory Service).

POINT

- You need to create a user (ID) and a password to access the Remote Management Controller before setting.

1 Create "iRMCgroups" (unchanging name) as Organizational Unit (OU) under the Active Directory domain.

1. Activate [Active Directory Users and Computers] settings on the server which is set Active Directory.
2. Create OU named "iRMCgroups" under the domain name.

POINT

- For the Active Directory domain name, set it up at [Domain name] of the Remote Management Controller Web interface [Directory Service Configuration].
  →"4.10.2 Directory Service Configuration" (pg.72)

2 Create OUs named "Departments" and "Shell"(both are unchanging names) under the OU "iRMCgroups" which was created at step 1.

OU "Shell" does not be used.

3 Create another OU under the OU "Departments" which was created at step 2.

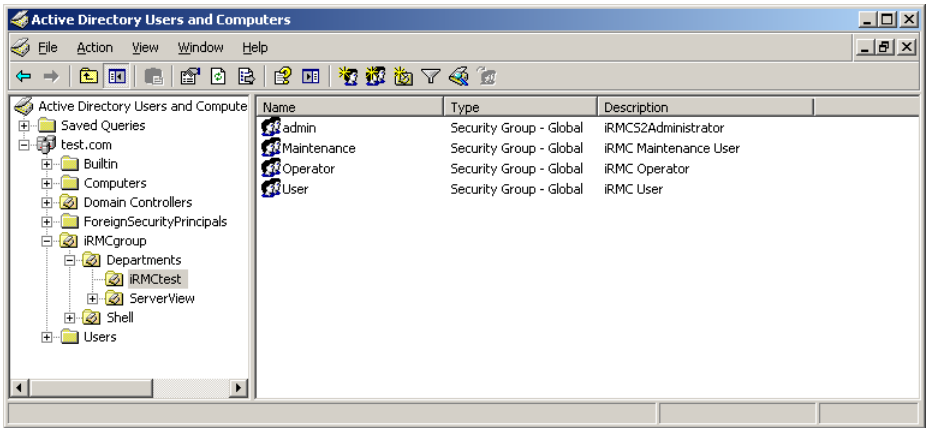
OU name here can be any name.

You can create multiple OUs under the OU "Departments".

POINT

- For the OU name here, set it up at [Dept. name] of the Remote Management Controller Web interface [Directory Service Configuration].
  →"4.10.2 Directory Service Configuration" (pg.72)
  You can set up only one OU name at [Dept. name] of [Directory Service Configuration].

4 Create a security group - global under the OU (any name) which was created at step 3.



The figure above shows four security groups, "admin", "Maintenance", "Operator" and "User" are created. Group names and the number of groups can be any.

5 Display the properties of the security groups you have created, and type the following privileges at [Notes].

table: Text for [Memo]

Item	Privilege
LAN	OEM/Administrator/Operator/User
Serial	OEM/Administrator/Operator/User
UserAccounts	On/Off
iRMCsettings	On/Off
VideoRedirection	On/Off
RemoteStorage	On/Off

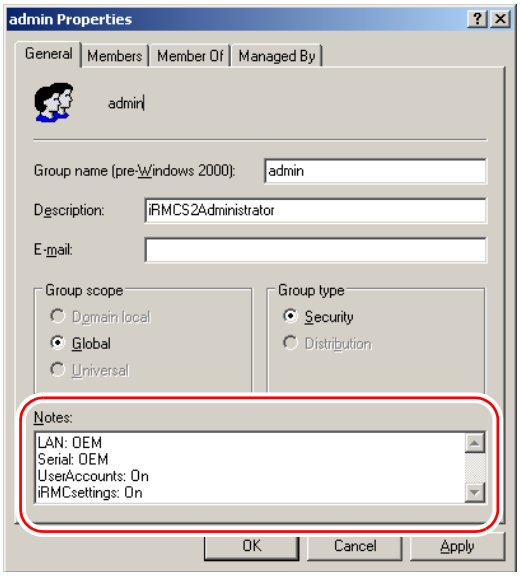
POINT

- For information about each privilege, refer to "■ Creating New User Information" (→pg.71).

Example:

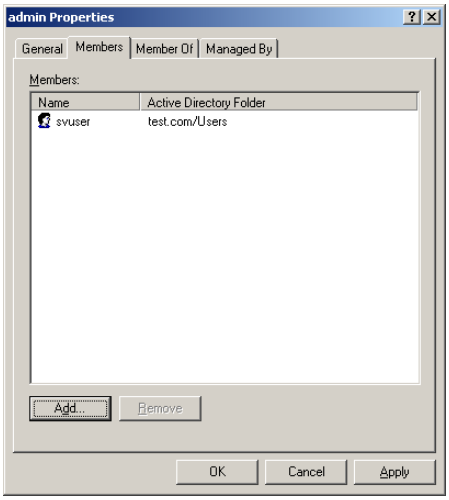
```
LAN: OEM
Serial: OEM
UserAccounts: On
iRMCsettings: On
VideoRedirection: On
RemoteStorage: On
```

Privileges you type here are the privileges on the Remote Management Controller.



6 Register a user (ID) on a security group to access the Remote Management Controller.

1. Display the properties of a security group to register the user, and click the [Members] tab.



2. Click [Add] and configure the user (ID) to access the Remote Management Controller.

7 After setting Active Directory, configure each item of the Remote Management Controller [Directory Service Configuration].

→"4.10.2 Directory Service Configuration" (pg.72)

Active Directory is available the next login.

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