



# Before Reading This Manual

## Remarks

---

### ■ Symbols

Symbols used in this manual have the following meanings:

	These sections explain prohibited actions and points to note when using this software. Make sure to read these sections.
	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.

### ■ CD/DVD drive description

In this manual, both CD-ROM and DVD-ROM drives are described as a CD/DVD 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 "↑" marks, press the [Space] key once.
- In the example above, the command entry is written in lower case, but upper case is also allowed.
- CD/DVD drive letters are shown as [CD/DVD drive]. Enter your drive letter depending on your environment.  
[CD/DVD drive]:\setup.exe

### ■ 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.

### ■ Consecutive operations

Consecutive operations are described by connecting them with a dash (–).

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

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

■ **Abbreviations**

The following expressions and abbreviations are used throughout this manual.

table: Abbreviation of product name

Product name	Expression and abbreviation			
Microsoft® Windows Server® 2008 Standard	Windows Server 2008 Standard (32-bit)	Windows Server 2008 Standard		
	Windows Server 2008 Standard (64-bit)			
Microsoft® Windows Server® 2008 Standard without Hyper-V™	Windows Server 2008 Standard (32-bit)		Windows Server 2008	
	Windows Server 2008 Standard (64-bit)			
Microsoft® Windows Server® 2008 Enterprise	Windows Server 2008 Enterprise (32-bit)	Windows Server 2008 Enterprise		
	Windows Server 2008 Enterprise (64-bit)			
Microsoft® Windows Server® 2008 Enterprise without Hyper-V™	Windows Server 2008 Enterprise (32-bit)			Windows
	Windows Server 2008 Enterprise (64-bit)			
Microsoft® Windows Server® 2003, Standard Edition	Windows Server 2003			
Microsoft® Windows Server® 2003 R2, Standard Edition	Windows Server 2003 R2			
Microsoft® Windows Server® 2003, Standard x64 Edition	Windows Server 2003 x64 [*1]			
Microsoft® Windows Server® 2003 R2, Standard x64 Edition	Windows Server 2003 R2 x64			
Microsoft® Windows® Small Business Server 2003	SBS 2003 [*1]			
Microsoft® Windows® Small Business Server 2003 R2	SBS 2003 R2			
Microsoft® Windows Server® 2003 Service Pack	Service Pack			
Microsoft® Windows Server® 2003 x64 Service Pack				

**[\*1]: Unless otherwise noted, Windows Server 2003 can also mean Windows Server 2003 x64 / SBS 2003. For latest Support OS information, please refer to "Support Matrix" at <http://www.fujitsu.com/downloads/PRMRGY/support-matrix.pdf>**

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# Contents

<b>Chapter 1 Installing Windows Server 2003 x64.....</b>	<b>4</b>
1.1. Preparation.....	5
1.1.1. Creating Driver Disk .....	5
1.1.2. Configuring Array .....	7
1.1.3. Installing Internal Options.....	8
1.2. Installation Procedure .....	9
1.3. Installation of LAN Driver .....	12
1.3.1. Updating LAN Driver .....	12
1.3.2. Installing LAN Driver .....	12
1.3.3. LAN Device Name.....	13
1.3.4. Checking Network Adapter .....	15
<b>Chapter 2 Installing Windows Server 2003 .....</b>	<b>16</b>
2.1. Preparation.....	17
2.1.1. Creating Driver Disk .....	17
2.1.2. Configuring Array .....	19
2.1.3. Installing Internal Options.....	20
2.2. Installation Procedure .....	21
2.3. Installation of LAN Driver .....	24
2.3.1. Updating LAN Driver .....	24
2.3.2. Installing LAN Driver .....	24
2.3.3. LAN Device Name.....	25
2.3.4. Checking Network Adapter .....	27
<b>Chapter 3 Installing Windows Server 2008 .....</b>	<b>28</b>
3.1. Preparation.....	29
3.1.1. Creating Driver Disk .....	29
3.1.2. Configuring Array .....	32
3.1.3. Installing Internal Options.....	32
3.2. Installation Procedure .....	34
3.3. Installation of LAN Driver .....	42
3.3.1. Updating LAN Driver .....	42
3.3.2. Installing LAN Driver .....	43
3.3.3. LAN Device Name.....	43
<b>Chapter 4 Installing Windows Server 2008 Server Core .....</b>	<b>46</b>
4.1. Preparation.....	47
4.1.1. Creating Driver Disk .....	47
4.1.2. Configuring Array .....	50
4.1.3. Installing Internal Options.....	51
4.2. Installation Procedure .....	52
4.3. Installation of LAN Driver .....	59

## Chapter 1

# Installing Windows Server 2003 x64

# 1

**This chapter explains how to install  
Windows Server 2003 x64 manually.**

- 1.1 Preparation
- 1.2 Installation Procedure
- 1.3 Installation of LAN Driver

## 1.1. Preparation

This section explains preparation requirements for installation.

### 1.1.1. Creating Driver Disk

When installing the OS manually, it is necessary to create a driver installation disk beforehand. Create a driver disk by using PRIMERGY Startup Disc supplied with the server.

For the procedure for creating a driver disk, refer to "User's Guide".

#### ■ Driver for array controller

Check your array controller type and create one of the following driver disks.

SAS array controller card (MegaRAID SAS)	MegaRAID SAS Windows Server 2003 for x64 Edition Drivers Disk
SAS controller card or onboard IM (Integrated Mirroring SAS) / Unconfigured array (SAS hard disk)	Integrated Mirroring SAS Windows Server 2003 for x64 Edition Drivers Disk
Onboard Software RAID (Embedded MegaRAID SATA)	Embedded MegaRAID SATA Windows Server 2003 for x64 Edition Drivers Disk
Unconfigured array (SATA hard disk)	No driver installation is required.

#### ■ Driver for onboard LAN / expansion card

A driver disk you create differs depending on your PRIMERGY type. Check your PRIMERGY type and create an appropriate driver disk.



For the latest driver, download files from the website (<http://www.fujitsu.com/global/services/computing/server/ia/driver/>).

#### ● PRIMERGY ECONE L 100 S2

##### PRIMERGY ECONE L 100 S2

Onboard LAN / Expansion card	Driver
Onboard LAN / LAN card (PG-1853)	Onboard / PG-18xx / 28xx LAN Driver V12.3
SAS array controller card (PG-248BC)	MegaRAID SAS Driver for Windows 2003 / R2 x64 Edition V2.17L10
Display driver	Onboard VGA Driver (ATI ES1000) for Windows 2003 / R2 x64 Edition V6.14.10.6606
Other expansion card	Driver attached with each expansion card

Note: Driver disk is unable to be created from ServerStart for ECONE L 100 S2.

- **PRIMERGY RX100 S5**

[PRIMERGY RX100 S5](#)

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 for x64 Edition Drivers Disk V 10.39b
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 x64 Edition V12.1
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2003 / R2 x64 Edition V7.0.0.6
Other expansion card	Driver attached with each expansion card

- **PRIMERGY TX150 S6**

[PRIMERGY TX150 S6](#)

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 for x64 Edition Drivers Disk V10.39b
LAN card (PG-1853)	PG-185x/186x/188x/189x PCI LAN Driver for Windows 2003 / R2 x64 Edition V12.1
LAN card (PG-2861 / PG-289)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 x64 Edition V12.1
SAS array controller card (PG-248B / PG-248C)	MegaRAID SAS Driver for Windows 2003 / R2 x64 Edition V2.17L10
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2003 / R2 x64 Edition V7.0.0.6
Other expansion card	Driver attached with each expansion card

- **PRIMERGY RX200 S4**

[PRIMERGY RX200 S4](#)

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 for x64 Edition Drivers Disk V2.8.13.0
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 x64 Edition V12.1
SAS array controller card (PG-248B / PG-248C / PG-244C1)	MegaRAID SAS Driver for Windows 2003 / R2 x64 Edition V2.17L10
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2003 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2003 / R2 x64 Edition V1.20a3
Other expansion card	Driver attached with each expansion card

- **PRIMERGY TX300 S4**

[PRIMERGY TX300 S4](#)

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 for x64 Edition Drivers Disk V2.8.13.0
LAN card (PG-1853 / PG-1863 / PG-1882 / PG-1892)	PG-185x / 186x / 188x / 189x PCI LAN Driver for Windows 2003 / R2 x64 Edition V12.1
LAN card (PG-2861 / PG-289 / PG-288)	PG-286x / 288x / 289x PCI-ex LAN Driver for Windows 2003 / R2 x64 Edition V12.1
SAS array controller card (PG-244C / PG-248B / PG-248C1)	MegaRAID SAS Driver for Windows 2003 / R2 x64 Edition V2.17L10
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2003 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2003 / R2 x64 Edition V1.20a3
Other expansion card	Driver attached with each expansion card

● **PRIMERGY RX300 S4**

[PRIMERGY RX300 S4](#)

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 for x64 Edition Drivers Disk V2.8.13.0
LAN card (PG-1853L / PG-1863L / PG-1882L / PG-1892L)	PG-185x / 186x / 188x/189x PCI LAN Driver for Windows 2003 / R2 x64 Edition V12.1
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 x64 Edition V12.1
SAS array controller card (PG-244CL / PG-248CL)	MegaRAID SAS Driver for Windows 2003 / R2 x64 Edition V2.17L10
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2003 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2003 / R2 x64 Edition V1.20a3
Other expansion card	Driver attached with each expansion card

● **PRIMERGY RX600 S4**

[PRIMERGY RX600 S4](#)

Onboard LAN / Expansion card	Driver
Onboard LAN / LAN card (PG-2861 / PG-289 / PG-288)	Onboard/PG-18xx/28xx LAN Driver V12.2
SAS array controller card (PG-244C)	MegaRAID SAS Driver for Windows 2003 / R2 x64 Edition V2.17L10
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2003 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2003 / R2 x64 Edition V1.20a3
Other expansion card	Driver attached with each expansion card

## 1.1.2. Configuring Array

When you operate with array configurations, configure arrays first, before you install OS.

1 **Turn on the server.**

2 **Configure an array.**

The method differs depending on your array controller.

**For Onboard Software RAID (Embedded MegaRAID SATA)**

When the following message appears, press the [Ctrl] + [M] keys or the [Enter] key.

Press Ctrl+M or Enter to run LSI Software RAID Setup Utility.

SATA Setup Utility starts up, and Management Menu appears.

For details, refer to "Embedded MegaRAID SATA User's Guide" in Array Controller Document & Tool CD.

**For SAS controller card or onboard IM (Integrated Mirroring SAS)**

When the following message appears, press the [Ctrl] + [C] keys.

Press Ctrl C to start LSI Logic Configuration Utility

BIOS Utility starts up.

For details, refer to "Integrated Mirroring SAS User's Guide" in Array Controller Document & Tool CD.

**For SAS array controller card (MegaRAID SAS)**

Turn on the server. When the following message appears, press the [Ctrl] + [H] keys.

Press <Ctrl><H> for WebBIOS

WebBIOS starts up.

For details, refer to "MegaRAID SAS User's Guide" in Array Controller Document & Tool CD.

**3 Turn off the server.**

### 1.1.3. Installing Internal Options

---

The installation sequence depends on the internal options which must be installed before or after the OS installation. Make sure to read "2.1.1 Installing Internal Options" in "User's Guide", and follow the procedure appropriate for your internal option(s).



If an internal option device that must be installed after the OS installation has been already installed, remove the device, and reinstall the device after completion of the OS installation.

■ **Options to be installed before the OS installation**

**Examples\*:**

- Internal hard disk unit to install OS
- CPU
- Memory modules
- Expansion cards
- USB floppy disk drive
- Internal DVD-ROM unit

■ **Options to be installed after the OS installation**

**Examples\*:**

- Optional SCSI/SAS devices
- Internal hard disk units where the OS is not installed
- Internal DAT72 unit or internal data cartridge drive unit
- Internal HDD Unit Bay Conversion kit
- A 5-inch internal device option

\*: Applicable options differ depending on your PRIMERGY type.



## 1.2. Installation Procedure

This section explains how to install Windows Server 2003 x64 manually.



- For details on the OS settings, refer to the following website.  
<http://www.microsoft.com/technet/prodtechnol/exchange/2003/Library/default.msp>
- For using the external floppy drive disk, please confirm the connection of the USB device before turning on the server.

- **Requirements**

- Windows Server 2003 x64 CD/DVD (installation disc)
- PRIMERGY Startup Disc (supplied with the server)
- A driver disk created in advance

1 **Turn on the server.**

2 **Insert the Windows Server 2003 x64 CD/DVD and the array controller driver disk.**

Turn on the server, and immediately insert the Windows Server 2003 x64 CD/DVD into the CD/DVD drive, and the array controller driver disk into the floppy disk drive. When the active area is specified on the hard disk, the following message appears.

Press any key to boot from CD. . . .

Press any key while this message is displayed to boot from the CD/DVD drive.

3 **The [Windows Server 2003 x64 Setup] window appears.**

Immediately after the setup window appears, the following message is displayed at the bottom of the window. Press the [F6] key.

Press F6 if you need to install a third party SCSI or RAID driver ...



- This message is displayed for a short time after the setup window (blue screen) appears.  
Press the [F6] key immediately after the window turns blue.

4 **Install an array controller driver manually.**

1. **When the following message appears, press the [S] key.**

To specify additional SCSI adapters, CD-ROM drives, or special disk controllers for use with Windows, including those for which you have a device support disk from a mass storage device manufacturer, press S.

2. **When the message "Please insert the disk labeled Manufacturer-supplied hardware support disk into Drive A:" appears, press the [Enter] key.**

The following message appears.

You have chosen to configure a SCSI Adapter for use with Windows, using a device support disk provided by an adapter manufacturer.  
Select the SCSI Adapter you want from the following list, or press ESC to return to the previous screen.

On certain occasions, the message may not appear.

3. **Select the following depending on your controller type, and press the [Enter] key.**

- For Onboard Software RAID (Embedded MegaRAID SATA)

LSI Logic Embedded MegaRAID (Windows XP/2003 64-bit)

- For SAS controller card or onboard IM (Integrated Mirroring SAS)

LSI Logic Fusion-MPT SAS Driver (Server 2003 x64)

- For SAS array controller card (MegaRAID SAS)

LSI Logic MegaRAID SAS RAID Controller Driver (Server 2003 for x64)

**4. When the following message appears, press the [S] key.**

The driver you provided seems to be newer than the Windows default driver.

**5. Follow the instructions on the window for the installation.**

The message which prompts you to set the floppy disk appears during the installation, set the driver disk, and press the [Enter] key.

**5 Follow the instructions from the setup program to continue the installation.**

If a message indicating that the driver has not passed the Windows logo test for validating the compatibility with Windows appears, select [Yes] to continue the installation.

**6 Install a ChipSet driver.**

- 1. Insert the PRIMERGY Startup Disc into the CD/DVD drive of the server.**  
When the ServerStart window appears, exit ServerStart.

- 2. Execute the following command on the PRIMERGY Startup Disc.**

**For TX150 S6 / RX100 S5 / ECONEL 100 S2**

[CD/DVD drive]:\DRIVERS\ChipSet\Intel\3100\infinst\_autol.exe

**For RX300 S4 / TX300 S4 / RX200 S4**

[CD/DVD drive]:\DRIVERS\ChipSet\Intel\5000P\infinst\_autol.exe

**For RX600 S4**

[CD/DVD drive]:\DRIVERS\ChipSet\Intel\7300\infinst\_autol.exe

The installation wizard starts up.

- 3. Click [Next]. Follow the instructions on the window to perform the installation.**

- 4. When the installation is completed, eject the PRIMERGY Startup Disc from the CD/DVD drive, and click [Finish] to restart the system.**

**7 Install a Graphic driver.**

- 1. Insert the PRIMERGY Startup Disc into the CD/DVD drive of the server.**  
When the ServerStart window appears, exit ServerStart.

- 2. Execute the following command on the PRIMERGY Startup Disc.**

**For TX150 S6 / RX100 S5 / RX300 S4 / TX300 S4 / RX200 S4**

[CD/DVD drive]:  
\DRIVERS\VIDEO\MATROX\w2k3x64\ServerEnginesG200eSETUP.exe

**For ECONEL 100 S2**

[CD/DVD drive]:  
\DRIVERS\VIDEO\ATI\W2K3\Setup.exe

**For RX600 S4**

[CD/DVD drive]:  
\DRIVERS\VIDEO\MATROX\w2k3x64\ServerEnginesG200e\_SETUP.exe

3. **Click [Next] and continue the installation by following the install wizard.**
4. **If "Setup completed" is displayed, eject the PRIMRGY startup disc. click the [finish] and restart the system.**

**8 Install a LAN driver.**

Install a LAN driver by using the driver disk created in advance.  
For details, refer to "1.3 Installation of LAN Driver".

**9 Apply Windows Server 2003 x64 Service Pack.**

For details, refer to the descriptions on the window.  
When applying the Service Pack, a driver may be replaced with the driver in the Service Pack.  
For more information, refer to the manual supplied with the hardware.

**10 Install high reliability tools.**

To ensure stable operation, install high reliability tools by using the PRIMERGY Startup Disc supplied with the server. For the setting procedure, refer to "User's Guide".

**11 Configure each setting for RAID Management Tool (ServerView RAID).**

Required setting differs depending on the type of array controller. Please refer to the manual enclosed Array Controller Document & Tool CD for detail and setting instruction.

- Setting up an array administrator account
- Setting HDD Check Scheduler
- Setting Battery Recalibration Scheduler
- Monitoring terminal or failure event monitoring setting via e-mail

**12 For RX300 S4 / TX300 S4 / RX200 S4, make settings of a LAN controller.**

1. **Click [Start] - [All Programs] - [Accessories] - [Command Prompt].**  
A command prompt appears.
2. **Type the following command, and then press the [Enter] key.**  
C:\> Netsh int ip set chimney DISABLED

The installation of Windows Server 2003 x64 has completed.

**■ Before starting operation**

After installing OS, refer to "Chapter 4 Operations after OS Installation" in "User's Guide", and take necessary procedures.

## 1.3. Installation of LAN Driver

The LAN driver installation procedure differs depending on whether a network adapter was recognized during the OS installation. To check whether the network adapter is recognized, refer to "1.3.4 Checking Network Adapter".

### POINT

➤ For the following LAN cards, the network adapters are recognized when the cards are installed during OS installation. Perform "1.3.1 Updating LAN Driver" first, and then perform "1.3.2 Installing LAN Driver".

- PG-1882
- PG-1892

### 1.3.1. Updating LAN Driver

Follow the procedure below on all LAN device names under [Network adapters] in [Device Manager].

- 1 **Click [Start] - [Administrative Tools] - [Computer Manager].**
- 2 **Click [Device Manager].**
- 3 **Double-click a LAN device name under [Network adapters].**  
For LAN device name, refer to "1.3.3 LAN Device Name".
- 4 **Insert the driver disk created from the PRIMERGY Startup Disc into the server.**  
For RX600 S4 / ECONEL 100 S2, inset the PRIMERGY Startup Disc into the server.
- 5 **Click [Update Driver] in the [Driver] tab window.**  
The [Welcome to the Hardware Update Wizard] window appears.
- 6 **Check [No, not this time], and click [Next].**
- 7 **Select [Install the software automatically (Recommended)], and click [Next].**  
Driver installation starts.
- 8 **Click [Finish].**
- 9 **Click [Close] to close the properties window.**

### 1.3.2. Installing LAN Driver

Follow the procedure below on each [Ethernet controller] under [Other devices] in [Device Manager].

- 1 **Insert the driver disk created from the PRIMERGY Startup Disc into the server.**  
For RX600 S4 / ECONEL 100 S2, inset the PRIMERGY Startup Disc into the server.
- 2 **Double-click [Ethernet controller] under [Other devices].**  
The properties window for the Ethernet controller appears.
- 3 **Click [Reinstall Driver] in the [General] tab window.**  
The "Welcome to the Hardware Update Wizard" window appears.
- 4 **Select "No, not this time" and click [Next].**

- 5 **Select "Install the software automatically (Recommended)" and click [Next].**  
Driver installation starts.
- 6 **Click [Finish].**
- 7 **Click [Close] to close the properties window.**
- 8 **Remove the driver disk, and restart the system.**  
After LAN driver installation, a LAN device name is displayed. For LAN device name, refer to "1.3.3 LAN Device Name".

### 1.3.3. LAN Device Name

---

LAN device names differ depending on your PRIMERGY type and LAN card.

- **PRIMERGY ECONEL 100 S2**

[PRIMERGY ECONEL 100 S2](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Intel(R) 82566DM-2 Gigabit Network Connection
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter

- **PRIMERGY RX100 S5**

[PRIMERGY RX100 S5](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	LAN1: Broadcom NetXtreme Gigabit Ethernet LAN2: Broadcom NetXtreme Gigabit Ethernet #2
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY TX150 S6**

[PRIMERGY TX150 S6](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom NetXtreme Gigabit Ethernet
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter

- **PRIMERGY RX200 S4**

[PRIMERGY RX200 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client)
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY RX300 S4**

[PRIMERGY RX300 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client)
PG-1853L	Intel(R) PRO/1000 GT Desktop Adapter
PG-1863L	Intel(R) PRO/1000 GT Dual Port Server Adapter
PG-1882L	Intel(R) PRO/1000 MF Server Adapter
PG-1892L	Intel(R) PRO/1000 MT Server Adapter
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY TX300 S4**

[PRIMERGY TX300 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client)
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter
PG-1863	Intel(R) PRO/1000 GT Dual Port Server Adapter
PG-1882	Intel(R) PRO/1000 MF Server Adapter
PG-1892	Intel(R) PRO/1000 MT Server Adapter
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter
PG-288	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY RX600 S4**

[PRIMERGY RX600 S4](#)

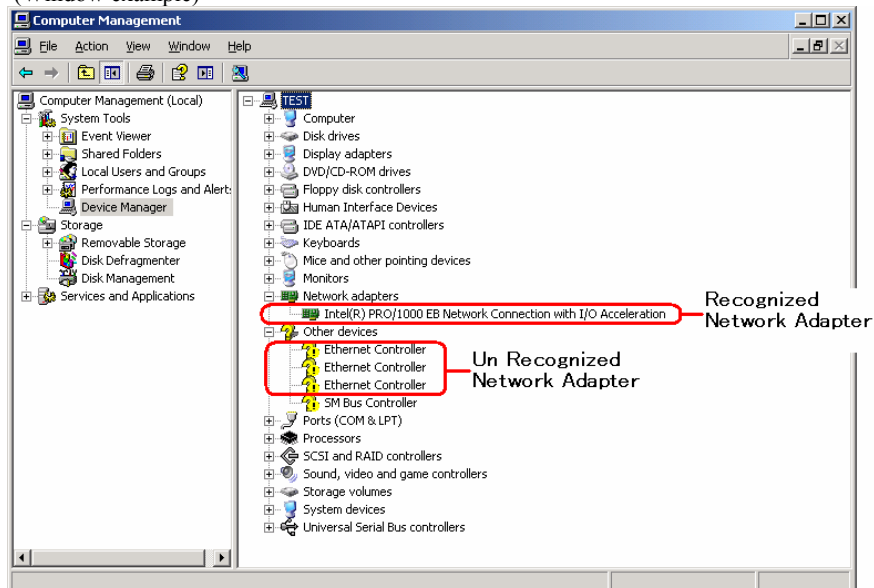
Onboard LAN / LAN card	LAN device name
Onboard LAN	Main board LAN Intel(R) PRO/1000 EB Network Connection with I/O Acceleration I/O raiser LAN Intel (R) 82575EB Gigabit Network Connection
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter
PG-288	Intel(R) PRO/1000 PF Server Adapter

### 1.3.4. Checking Network Adapter

This section explains how to check the network adapter.

- 1 Click [Start] - [Administrative Tools] - [Computer Management].
- 2 Click [Device Manager].  
On the Device Manager list, check if a recognized network adapter is present.

(Window example)



When a recognized network adapter is present, [Network adapters] appears.

#### ■ When recognized network adapter is present

Update a LAN driver on the LAN device name under [Network adapters] first, and install a LAN driver on [Ethernet controller] under [Other devices].

#### ■ When recognized network adapter is not present

Install a LAN driver on [Ethernet controller] under [Other devices].



#### **When LAN driver is installed to [Other devices] before updating driver for network adapter recognized immediately after OS installation**

When driver installation starts, the message "This hardware cannot start" appears occasionally. Device names are displayed properly when all LAN drivers' installation are completed and the system is restarted.

## Chapter 2

# Installing Windows Server 2003

# 2

**This chapter explains how to install  
Windows Server 2003 manually.**

- 2.1 Preparation
- 2.2 Installation Procedure
- 2.3 Installation of LAN Driver



## 2.1. Preparation

This section explains preparation requirements for installation.

### 2.1.1. Creating Driver Disk

When installing the OS manually, it is necessary to create a driver installation disk beforehand. Create a driver disk by using PRIMERGY Startup Disc supplied with the server.

About the procedure for creating a driver disk, refer to "User's Guide".

#### ■ Driver for array controller

Check your array controller type and create one of the following driver disks.

SAS array controller card (MegaRAID SAS)	MegaRAID SAS Windows Server 2003 Drivers Disk
SAS controller card / onboard IM (Integrated Mirroring SAS) or unconfigured array (SAS hard disk)	Integrated Mirroring SAS Windows Server 2003 Drivers Disk
Onboard Software RAID (Embedded MegaRAID SATA)	Embedded MegaRAID SATA Windows Server 2003 Drivers Disk
Unconfigured array (SATA hard disk)	No driver installation is required.

#### ■ Driver for onboard LAN / expansion card

A driver disk you create differs depending on your PRIMERGY type. Check your PRIMERGY type and create an appropriate driver disk.



- For the latest driver, download files from the website (<http://www.fujitsu.com/global/services/computing/server/ia/driver/>)

#### ● PRIMERGY ECONEL 100 S2

##### PRIMERGY ECONEL 100 S2

Onboard LAN / Expansion card	Driver
Onboard LAN / LAN card (PG-1853)	Onboard/PG-18xx/28xx LAN Driver V12.3
SAS array controller card (PG-248BC)	MegaRAID SAS Windows Server 2003 Drivers Disk
Display adapter	ECONEL 100 S2 Onboard VGA Driver (ATI ES1000) for Windows 2003 / R2 V6.14.10.6606
Other expansion card	Driver attached with each expansion card

Note: Driver disk is unable to be created from ServerStart for ECONEL 100 S2.

#### ● PRIMERGY RX100 S5

##### PRIMERGY RX100 S5

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 Drivers Disk V10.39b
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 V12.1
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2003 / R2 V7.0.0.6
Other expansion card	Driver attached with each expansion card

- **PRIMERGY TX150 S6**

## PRIMERGY TX150 S6

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 Drivers Disk V10.39b
LAN card (PG-1853)	PG-185x/186x/188x/189x PCI LAN Driver for Windows 2003 / R2 V12.1
LAN card (PG-2861 / PG-289)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 V12.1
SAS array controller card (PG-248B / PG-248C)	MegaRAID SAS Windows Server 2003 Drivers Disk
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2003 / R2 V7.0.0.6
Other expansion card	Driver attached with each expansion card

- **PRIMERGY RX200 S4**

## PRIMERGY RX200 S4

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 Drivers Disk V2.8.13.0
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 V12.1
SAS array controller card (PG-248B / PG-248C / PG-244C1)	MegaRAID SAS Windows Server 2003 Drivers Disk
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2003 / R2 V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2003 / R2 V1.20a3
Other expansion card	Driver attached with each expansion card

- **PRIMERGY TX300 S4**

## PRIMERGY TX300 S4

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 Drivers Disk V2.8.13.0
LAN card (PG-1853 / PG-1863 / PG-1882 / PG-1892)	PG-185x/186x/188x/189x PCI LAN Driver for Windows 2003 / R2 V12.1
LAN card (PG-2861 / PG-289 / PG-288)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 V12.1
SAS array controller card (PG-244C / PG-248B / PG-248C1)	MegaRAID SAS Windows Server 2003 Drivers Disk
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2003 / R2 V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2003 / R2 V1.20a3
Other expansion card	Driver attached with each expansion card

- **PRIMERGY RX300 S4**

## PRIMERGY RX300 S4

Onboard LAN / Expansion card	Driver
Onboard LAN	Windows 2003 Drivers Disk V2.8.13.0
LAN card (PG-1853L / PG-1863L / PG-1882L / PG-1892L)	PG-185x/186x/188x/189x PCI LAN Driver for Windows 2003 / R2 V12.1
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2003 / R2 V12.1
SAS array controller card (PG-244CL / PG-248CL)	MegaRAID SAS Windows Server 2003 Drivers Disk
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2003 / R2 V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2003 / R2 V1.20a3
Other expansion card	Driver attached with each expansion card

- **PRIMERGY RX600 S4**

## PRIMERGY RX600 S4

Onboard LAN / Expansion card	Driver
Onboard LAN / LAN card (PG-2861 / PG-289 / PG-288)	Onboard/PG-18xx/28xx LAN Driver V12.2
SAS array controller card (PG-244C)	MegaRAID SAS Windows Server 2003 Drivers Disk
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2003 / R2 V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2003 / R2 V1.20a3
Other expansion card	Driver attached with each expansion card

## 2.1.2. Configuring Array

When you operate with array configurations, configure arrays first before you install OS.

- 1 **Turn on the server.**
- 2 **Configure an array.**

The method differs depending on your array controller.

### **For Onboard Software RAID (Embedded MegaRAID SATA)**

When the following message appears, press the [Ctrl] + [M] keys or the [Enter] key.

```
Press Ctrl-M or Enter to run LSI Software RAID Setup Utility.
```

SATA Setup Utility starts up, and Management Menu appears.

For details, refer to "Embedded MegaRAID SATA User's Guide" in Array Controller Document & Tool CD.

### **For SAS controller card or onboard IM (Integrated Mirroring SAS)**

When the following message appears, press the [Ctrl] + [C] keys.

```
Press Ctrl C to start LSI Logic Configuration Utility
```

BIOS Utility starts up.

For details, refer to "Integrated Mirroring SAS User's Guide" in Array Controller Document & Tool CD.

**For SAS array controller card (MegaRAID SAS)**

Turn on the server. When the following message appears, press the [Ctrl] + [H] keys.

Press <Ctrl><H> for WebBIOS

WebBIOS starts up.

For details, refer to "MegaRAID SAS User's Guide" in Array Controller Document & Tool CD.

**3 Turn off the server.**

### 2.1.3. Installing Internal Options

---

The installation sequence depends on the internal options which must be installed before or after the OS installation. Make sure to read "2.1.1 Installing Internal Options" in "User's Guide", and follow the procedure appropriate for your internal option(s).



If an internal option device that must be installed after the OS installation has been already installed, remove the device, and reinstall the device after completion of the OS installation.

■ **Options to be installed before the OS installation**

**Examples\*:**

- Internal hard disk unit to install OS
- CPU
- Memory modules
- Expansion cards
- USB floppy disk drive
- Internal DVD-ROM unit

■ **Options to be installed after the OS installation**

**Examples\*:**

- Optional SCSI/SAS devices
- Internal hard disk units where the OS is not installed
- Internal DAT72 unit or internal data cartridge drive unit
- Internal HDD Unit Bay Conversion kit
- A 5-inch internal device option

\*: Applicable options differ depending on your PRIMERGY type.

## 2.2. Installation Procedure

This section explains how to install Windows Server 2003 and SBS 2003 manually.

### POINT

- For details on the OS settings, refer to the following website.  
<http://www.microsoft.com/technet/prodtechnol/exchange/2003/Library/default.msp>
- For using the external Floppy Disk, connect the USB connector to the server before turning on the power.

### ● Requirements

- Windows Server 2003 CD/DVD (installation disc)
- PRIMERGY Startup Disc (supplied with the server)
- A driver disk created in advance

#### 1 Turn on the server.

#### 2 Insert the Windows Server 2003 CD/DVD and the array controller driver disk.

Turn on the server, and immediately insert the Windows Server 2003 CD/DVD into the CD/DVD drive, and the array controller driver disk into the floppy disk drive. When the active area is specified on the hard disk, the following message appears.

Press any key to boot from CD. . . .

Press any key while this message is displayed to boot from the CD/DVD drive.

#### 3 The [Windows Server 2003 Setup] window appears.

Immediately after the setup window appears, the following message is displayed at the bottom of the window. Press the [F6] key.

Press F6 if you need to install a third party SCSI or RAID driver ...

### IMPORTANT

- This message is displayed for a short time after the setup window (blue screen) appears.  
Press the [F6] key immediately after the window turns blue.

#### 4 Install an array controller driver manually.

##### 1 When the following message appears, press the [S] key.

To specify additional SCSI adapters, CD-ROM drives, or special disk controllers for use with Windows, including those for which you have a device support disk from a mass storage device manufacturer, press S.

##### 2 When the message "Please insert the disk labeled Manufacturer-supplied hardware support disk into Drive A:" appears, press the [Enter] key.

The following message appears.

You have chosen to configure a SCSI Adapter for use with Windows, using a device support disk provided by an adapter manufacturer.  
Select the SCSI Adapter you want from the following list, or press ESC to return to the previous screen.

On certain occasions, the message may not appear.

##### 3 Select the following depending on your controller type, and press the [Enter] key.

- For Onboard Software RAID (Embedded MegaRAID SATA)

LSI Logic Embedded MegaRAID (Windows XP/2003)

- For SAS controller card or onboard IM (Integrated Mirroring SAS)

LSI Logic Fusion-MPT SAS Driver (Server 2003 32-bit)

- For SAS array controller card (MegaRAID SAS)

LSI Logic MegaRAID SAS RAID Controller Driver (Server 2003 32-bit)

**4 When the following message appears, press the [S] key.**

The driver you provided seems to be newer than the Windows default driver.

**5 Follow the instructions on the window for the installation.**

The message which prompts you to set the floppy disk appears during the installation, set the driver disk, and press the [Enter] key.

**5 Follow the instructions from the setup program to continue the installation.**

If a message indicating that the driver has not passed the Windows logo test for validating the compatibility with Windows appears, select [Yes] to continue installing.

**6 Install a ChipSet driver.**

**1 Insert the PRIMERGY Startup Disc into the CD/DVD drive of the server.**

When the ServerStart window appears, exit ServerStart.

**2 Execute the following command on the PRIMERGY Startup Disc.**

**For TX150 S6 / RX100 S5 / ECONEL 100 S2**

[CD/DVD drive]: \DRIVERS\ChipSet\Intel\3100\infinst\_autol.exe

**For RX300 S4 / TX300 S4 / RX200 S4**

[CD/DVD drive]: \DRIVERS\ChipSet\Intel\5000P\infinst\_autol.exe

**For RX600 S4**

[CD/DVD drive]: \DRIVERS\ChipSet\Intel\7300\infinst\_autol.exe

The installation wizard starts up.

**3 Click [Next]. Follow the instructions on the window to perform the installation.**

**4 When the installation is completed, eject the PRIMERGY Startup Disc from the CD/DVD drive, and click [Finish] to restart the system.**

**7 Install a Graphic driver.**

**1 Insert the PRIMERGY Startup Disc into the CD/DVD drive of the server.**

When the ServerStart window appears, exit ServerStart.

**2 Execute the following command on the PRIMERGY Startup Disc.**

**For TX150 S6 / RX300 S4 / TX300 S4 / RX200 S4**

[CD/DVD drive]:

\DRIVERS\VIDEOMATROX\w2k3\ServerEnginesG200eSETUP.exe

**For RX100 S5**

[CD/DVD drive]:

\DRIVERS\VIDEOMATROX\w2k3\ServerEnginesG200e\_Kronos2\_SETUP.exe

**For ECONEL 100 S2**

[CD/DVD drive]: \DRIVERS\VIDEO\ATI\W2K3\Setup.exe

**For RX600 S4**

[CD/DVD drive]:

\DRIVERS\VIDEOMATROX\w2k3\ServerEnginesG200e\_SETUP.exe

**8 Install a LAN driver.**

Install a LAN driver by using the driver disk created in advance.

For details, refer to "2.3 Installation of LAN Driver".

### 9 **Apply Windows Server 2003 Service Pack.**

For details, refer to the descriptions on the window.

When applying the Service Pack, a driver may be replaced with the driver in the Service Pack.

For more information, refer to the manual supplied with hardware.

### 10 **Install high reliability tools.**

To ensure stable operation, install high reliability tools by using the PRIMERGY Startup Disc supplied with the server. For installation, refer to "User's Guide".

### 11 **Configure each setting for RAID Management Tool (ServerView RAID).**

Required setting differs depending on the type of array controller. Please refer to the manual enclosed Array Controller Document & Tool CD for detail and setting instruction.

- Setting up an array administrator account
- Setting HDD Check Scheduler
- Setting Battery Recalibration Scheduler
- Monitoring terminal or failure event monitoring setting via e-mail

### 12 **For RX300 S4 / TX300 S4 / RX200 S4, make settings of a LAN controller.**

- 1 **Click [Start] - [All Programs] - [Accessories] - [Command Prompt].**  
A command prompt appears.
- 2 **Type the following command, and then press the [Enter] key.**  
C:\> Netsh int ip set chimney DISABLED

The installation of Windows Server 2003 has completed.

## ■ **Before starting operation**

After installing OS, refer to "Chapter 4 Operations after OS Installation" in "User's Guide", and take necessary procedures

## 2.3. Installation of LAN Driver

The LAN driver installation procedure differs depending on whether a network adapter was recognized during the OS installation. To check whether the network adapter is recognized or not, refer to "2.3.4 Checking Network Adapter".



➤ For the following LAN cards, the network adapters are recognized when the cards are installed during OS installation. Perform "2.3.1 Updating LAN Driver" first, and then perform "2.3.2 Installing LAN Driver".

- PG-1882
- PG-1892

### 2.3.1. Updating LAN Driver

Follow the procedure below on all LAN device names under [Network adapters] in [Device Manager].

- 1 **Click [Start] - [Administrative Tools] - [Computer Manager].**
- 2 **Click [Device Manager].**
- 3 **Double-click a LAN device name under [Network adapters].**  
For LAN device name, refer to "2.3.3 LAN Device Name".
- 4 **Insert the driver disk created from the PRIMERGY Startup Disc into the server.**  
For RX600 S4 / ECONEL 100 S2, inset the PRIMERGY Startup Disc into the server.
- 5 **Click [Update Driver] in the [Driver] tab window.**  
The "Welcome to the Hardware Update Wizard" window appears.
- 6 **Check "No, not this time", and click [Next].**
- 7 **Select "Install the software automatically (Recommended)", and click [Next].**  
Driver installation starts.
- 8 **Click [Finish].**
- 9 **Click [Close] to close the properties window.**

### 2.3.2. Installing LAN Driver

Follow the procedure below on each [Ethernet controller] under [Other devices] in [Device Manager].

- 1 **Insert the driver disk created from the PRIMERGY Startup Disc into the server.**  
For RX600 S4 / ECONEL 100 S2, inset the PRIMERGY Startup Disc into the server.
- 2 **Double-click [Ethernet controller] under [Other devices].**  
The properties window for the Ethernet controller appears.
- 3 **Click [Reinstall Driver] in the [General] tab window.**  
The [Welcome to the Hardware Update Wizard] window appears.



- 4 **Select "No, not this time" and click [Next].**
- 5 **Select "Install the software automatically (Recommended)" and click [Next].**  
Driver installation starts.
- 6 **Click [Finish].**
- 7 **Click [Close] to close the properties window.**
- 8 **Remove the driver disk, and restart the system.**  
After LAN driver installation, a LAN device name is displayed. For LAN device name, refer to "2.3.3 LAN Device Name".

### 2.3.3. LAN Device Name

---

LAN device names differ depending on your PRIMERGY type and LAN card.

- **PRIMERGY ECONEL 100 S2**

[PRIMERGY ECONEL 100 S2](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Intel(R) 82566DM-2 Gigabit Network Connection
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter

- **PRIMERGY RX100 S5**

[PRIMERGY RX100 S5](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	LAN1: Broadcom NetXtreme Gigabit Ethernet LAN2: Broadcom NetXtreme Gigabit Ethernet #2
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY TX150 S6**

[PRIMERGY TX150 S6](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom NetXtreme Gigabit Ethernet
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter

- **PRIMERGY RX200 S4**

[PRIMERGY RX200 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client)
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

● **PRIMERGY RX300 S4**

[PRIMERGY RX300 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client)
PG-1853L	Intel(R) PRO/1000 GT Desktop Adapter
PG-1863L	Intel(R) PRO/1000 GT Dual Port Server Adapter
PG-1882L	Intel(R) PRO/1000 MF Server Adapter
PG-1892L	Intel(R) PRO/1000 MT Server Adapter
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

● **PRIMERGY TX300 S4**

[PRIMERGY TX300 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client)
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter
PG-1863	Intel(R) PRO/1000 GT Dual Port Server Adapter
PG-1882	Intel(R) PRO/1000 MF Server Adapter
PG-1892	Intel(R) PRO/1000 MT Server Adapter
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter
PG-288	Intel(R) PRO/1000 PF Server Adapter

● **PRIMERGY RX600 S4**

[PRIMERGY RX600 S4](#)

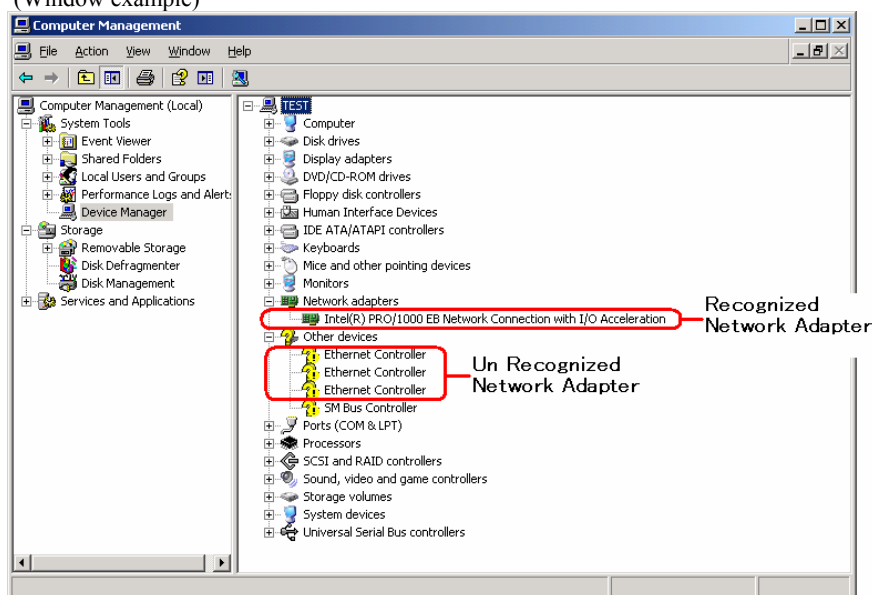
Onboard LAN / LAN card	LAN device name
Onboard LAN	Mainboard LAN Intel(R) PRO/1000 EB Network Connection with I/O Acceleration I/O riser LAN Intel (R) 82575EB Gigabit Network Connection
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter
PG-288	Intel(R) PRO/1000 PF Server Adapter

## 2.3.4. Checking Network Adapter

This section explains how to check the network adapter.

- 1 Click [Start] - [Administrative Tools] - [Computer Management].
- 2 Click [Device Manager].  
On the Device Manager list, check if a recognized network adapter is present.

(Window example)



When a recognized network adapter is present, [Network adapters] appears.

### ■ When recognized network adapter is present

Update a LAN driver on the LAN device name under [Network adapters] first, and install a LAN driver on [Ethernet controller] under [Other devices].

### ■ When recognized network adapter is not present

Install a LAN driver on [Ethernet controller] under [Other devices].



#### When LAN driver is installed to [Other devices] before updating driver for network adapter recognized immediately after OS installation

When driver installation starts, the message "This hardware cannot start" appears occasionally. Device names are displayed properly when all LAN drivers' installation are completed and the system is restarted.

# Chapter 3

---

## Installing Windows Server 2008

# 3

**This chapter explains how to install  
Windows Server 2008 manually.**

\* For the Server Core installation, refer to  
Chapter 4.

- 3.1 Preparation
- 3.2 Installation Procedure
- 3.3 Installation of LAN Driver

\* Windows Server® 2008 corresponding  
The latest information is provided at the URL:  
(<http://www.fujitsu.com/downloads/PRMRGY/support-matrix.pdf>)  
The attached software is not supported for Windows Server® 2008.

## 3.1. Preparation

This section explains preparation requirements for installation.

### 3.1.1. Creating Driver Disk

When installing the OS manually, it is necessary to create a driver installation disk beforehand. There is a 2-type procedure for creating the driver disk by using PRIMERGY Startup Disc supplied with the server and by downloading from webpage.

- About the procedure for creating a driver disk from PRIMERGY Startup Disc, refer to "User's Guide".
- About the procedure for creating a driver from download file on Web (<http://www.fujitsu.com/global/services/computing/server/ia/driver/>), refer to the published manual on the webpage.
- Make a latest version of Array Controller Document & Tool CD by downloading files from Web site.

#### ■ Driver for array controller

Check your array controller type and create a required driver disk before installing Windows Server 2008.

For Onboard Software RAID (Embedded MegaRAID SATA)	Create following driver disk from Array Controller Document & Tool CD.  Windows Server 2008 Drivers Disk or Windows Server 2008 for x64 Edition Drivers Disk
For SAS array controller card (MegaRAID SAS)	No driver disk is necessary. Driver is installed from Array Controller Document & Tool CD directly
For SAS controller card or onboard IM (Integrated Mirroring SAS)	No driver installation is required.
For unconfigured array	No driver installation is required.

#### ■ Driver for onboard LAN / expansion card

A driver disk you create differs depending on your PRIMERGY type. Check your PRIMERGY type and create an appropriate driver disk.



- For the latest driver, download files from the website (<http://www.fujitsu.com/global/services/computing/server/ia/driver/>)

#### ● PRIMERGY ECONEL 100 S2

##### PRIMERGY ECONEL 100 S2

Onboard LAN / Expansion card	Driver
Intel Chipset driver	Intel Chipset Driver for Windows Server 2008
Onboard LAN / LAN card (PG-1853)	Onboard / PG-18xx/28xx LAN Driver V12.4
SAS array controller card (PG-248BC)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

Note: Driver disk is unable to be created from ServerStart for ECONEL 100 S2.

● **PRIMERGY RX100 S5**

[PRIMERGY RX100 S5](#)

<b>Onboard LAN / Expansion card</b>	<b>Driver</b>
Intel Chipset driver	Intel Chipset Driver for Windows Server 2008
Onboard LAN	Windows 2008 for x64 Edition Drivers Disk V10.62.1.5
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2008 / R2 x64 Edition V7.2.0.0
Display 32-bit driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

● **PRIMERGY TX150 S6**

[PRIMERGY TX150 S6](#)

<b>Onboard LAN / Expansion card</b>	<b>Driver</b>
Intel Chipset driver	Intel Chipset Driver for Windows Server 2008
Onboard LAN	Windows 2008 for x64 Edition Drivers Disk V10.62.1.5
LAN card (PG-1853)	PG-185x/186x/188x/189x PCI LAN Driver for Windows 2008 / R2 x64 Edition V12.4
LAN card (PG-2861 / PG-289)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SAS array controller card (PG-248B / PG-248C)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2008 / R2 x64 Edition V7.0.0.6
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

● **PRIMERGY RX200 S4**

[PRIMERGY RX200 S4](#)

<b>Onboard LAN / Expansion card</b>	<b>Driver</b>
Onboard LAN & Broadcom Advanced Control Suite for Windows 2008/2008 x64	Windows 2008 Drivers Disk / for x64 Edition Drivers Disk V4.1.3.0
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SAS array controller card (PG-248B / PG-248C / PG-244C1)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2008 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2008 / R2 x64 Edition V1.20a3
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

● **PRIMERGY TX300 S4**

[PRIMERGY TX300 S4](#)

Onboard LAN / Expansion card	Driver
Onboard LAN & Broadcom Advanced Control Suite for Windows 2008/2008 x64	Windows 2008 Drivers Disk V4.1.3.0 Windows 2008 for x64 Edition Drivers Disk V4.1.3.0
LAN card (PG-1853 / PG-1863 / PG-1882 / PG-1892)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
LAN card (PG-2861 / PG-289 / PG-288)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SAS array controller card (PG-244C / PG-248B / PG-248C1)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281)	Windows Server 2008 standard driver
Fibre Channel card (PG-FC202)	Windows Server 2008 standard driver
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

\* Driver name could be changed.

● **PRIMERGY RX300 S4**

[PRIMERGY RX300 S4](#)

Onboard LAN / Expansion card	Driver
Onboard LAN & Broadcom Advanced Control Suite for Windows 2008/2008 x64	Windows 2008 Drivers Disk V4.1.3.0 Windows 2008 for x64 Edition Drivers Disk V4.1.3.0
LAN card (PG-1853L / PG-1863L / PG-1882L / PG-1892L)	PG-185x/186x/188x/189x PCI LAN Driver for Windows 2008 / R2 x64 Edition V12.4
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SAS array controller card (PG-244CL / PG-248CL)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2008 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2008 / R2 x64 Edition V1.20a3
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

\* Driver name could be changed.

● **PRIMERGY RX600 S4**

[PRIMERGY RX600 S4](#)

Onboard LAN / Expansion card	Driver
Onboard LAN / LAN card (PG-2861 / PG-289 / PG-288)	Onboard/PG-18xx/28xx LAN Driver V12.4
SAS array controller card (PG-244C)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2008 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2008 / R2 x64 Edition V1.20a3
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

### 3.1.2. Configuring Array

---

When you operate with array configurations, configure arrays first before you install OS.

1 **Turn on the server.**

2 **Configure an array.**

The method differs depending on your array controller.

**For Onboard Software RAID (Embedded MegaRAID SATA)**

When the following message appears, press the [Ctrl] + [M] keys or the [Enter] key.

Press Ctrl-M or Enter to run LSI Software RAID Setup Utility.

SATA Setup Utility starts up, and Management Menu appears.

For details, refer to "Embedded MegaRAID SATA User's Guide" in Array Controller Document & Tool CD.

**For SAS controller card or onboard IM (Integrated Mirroring SAS)**

When the following message appears, press the [Ctrl] + [C] keys.

Press Ctrl C to start LSI Logic Configuration Utility

BIOS Utility starts up.

For details, refer to "Integrated Mirroring SAS User's Guide" in Array Controller Document & Tool CD.

**For SAS array controller card (MegaRAID SAS)**

Turn on the server. When the following message appears, press the [Ctrl] + [H] keys.

Press <Ctrl><H> for WebBIOS

WebBIOS starts up.

For details, refer to "MegaRAID SAS User's Guide" in Array Controller Document & Tool CD.

3 **Turn off the server.**

### 3.1.3. Installing Internal Options

---

The installation sequence depends on the internal options which must be installed before or after the OS installation. Make sure to read "2.1.1 Installing Internal Options" in "User's Guide", and follow the procedure appropriate for your internal option(s).



If an internal option device that must be installed after the OS installation has been already installed, remove the device, and reinstall the device after completion of the OS installation.

#### ■ Options to be installed before the OS installation

**Examples\*:**

- Internal hard disk unit to install OS
- CPU
- Memory modules
- Expansion cards
- USB floppy disk drive
- Internal DVD-ROM unit



■ **Options to be installed after the OS installation**

**Examples\*:**

- Optional SCSI/SAS devices
- Internal hard disk units where the OS is not installed
- Internal DAT72 unit or internal data cartridge drive unit
- Internal HDD Unit Bay Conversion kit
- A 5-inch internal device option

\*: Applicable options differ depending on your PRIMERGY type.

## 3.2. Installation Procedure

This section explains how to install Windows Server 2008 manually.

### 1 Prepare the installation disc for Windows Server 2008

Turn on the server, and immediately insert the Windows Server 2008 DVD-ROM (\*1) into the CD/DVD drive. When the active area is specified on the hard disk, the following message appears.

Press any key to boot from CD or DVD . . . .

Press any key while this message is displayed to boot from the CD/DVD drive.

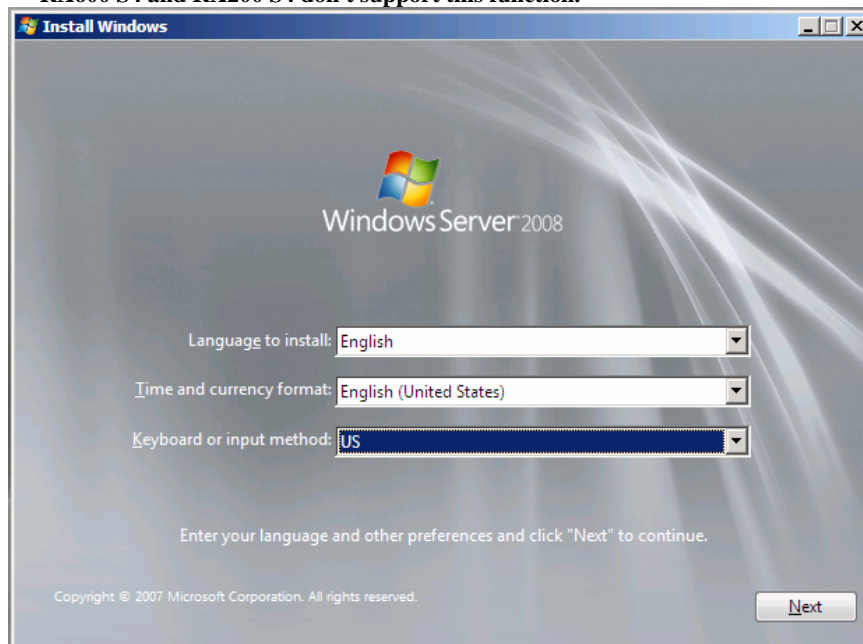
\*1: There is 2-type of DVD-ROM; for 32-bit and 64-bit. Please check them before inserting the disc.

### 2 Windows Server 2008 installation setup window appears.

Select the each item and click [Next] button. According to the setup wizard, continue the installation procedure.

\* If you use Bit Locker, specified partition format is required for installation. For more details, please refer to "Bit Locker manual".

\* RX600 S4 and RX200 S4 don't support this function.



### 3 Install RAID driver manually.

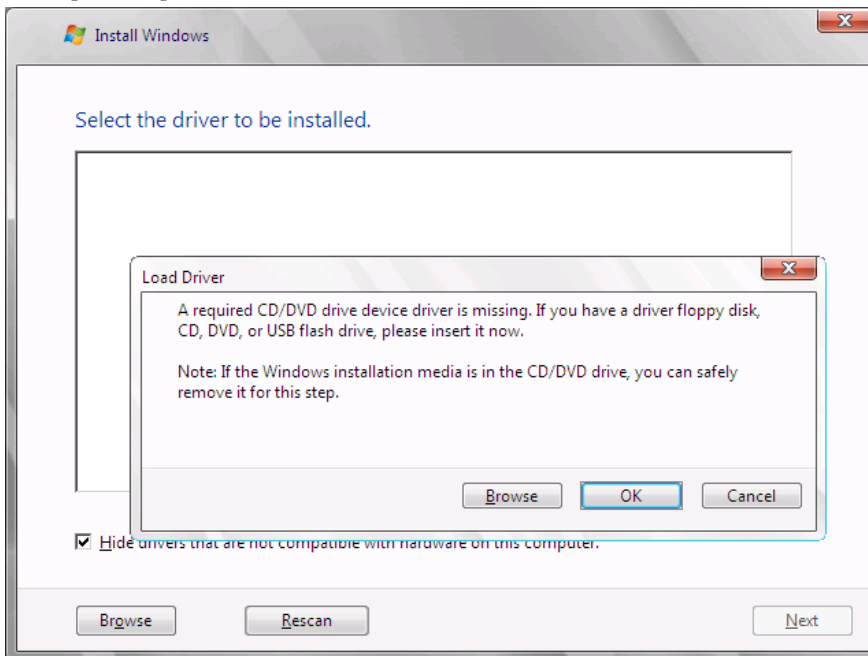
The procedure differs depending on the type of driver.

- For Onboard Software RAID (Embedded MegaRAID SATA), see p. 34.
- For SAS array controller card (MegaRAID SAS), see p. 35.
- For SAS controller card or onboard IM (Integrated Mirroring SAS), see p.37.
- For unconfigured array, see p.37.

Depending on the system configuration, this step and step 4 and 5 might be reversed.

**For Onboard Software RAID (Embedded MegaRAID SATA)**

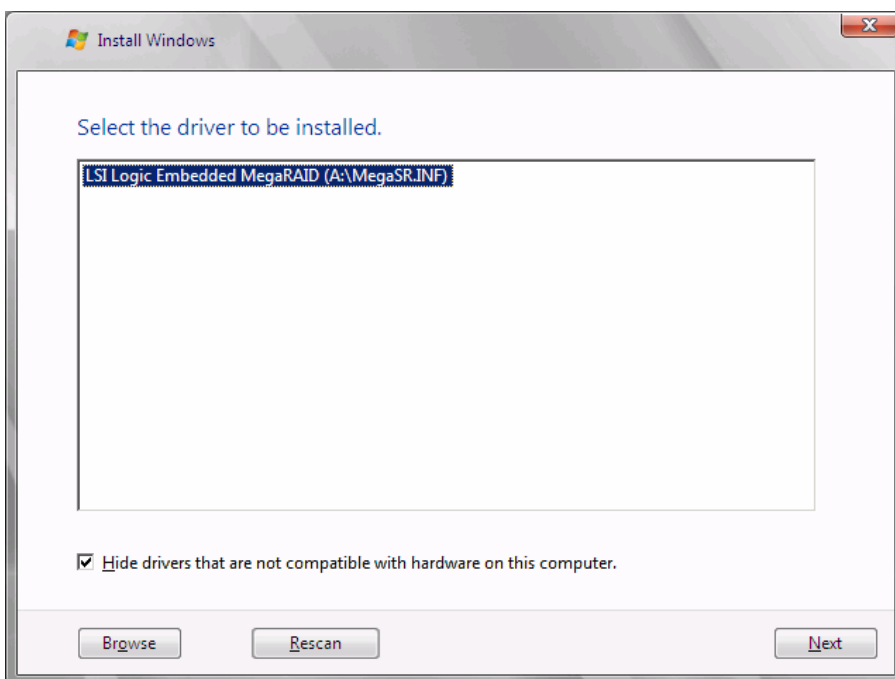
Set the driver floppy disk when the wizard window below is displayed. Click [Browse], and select the folder in which the installed driver is saved



After selecting the driver, the following message is displayed.

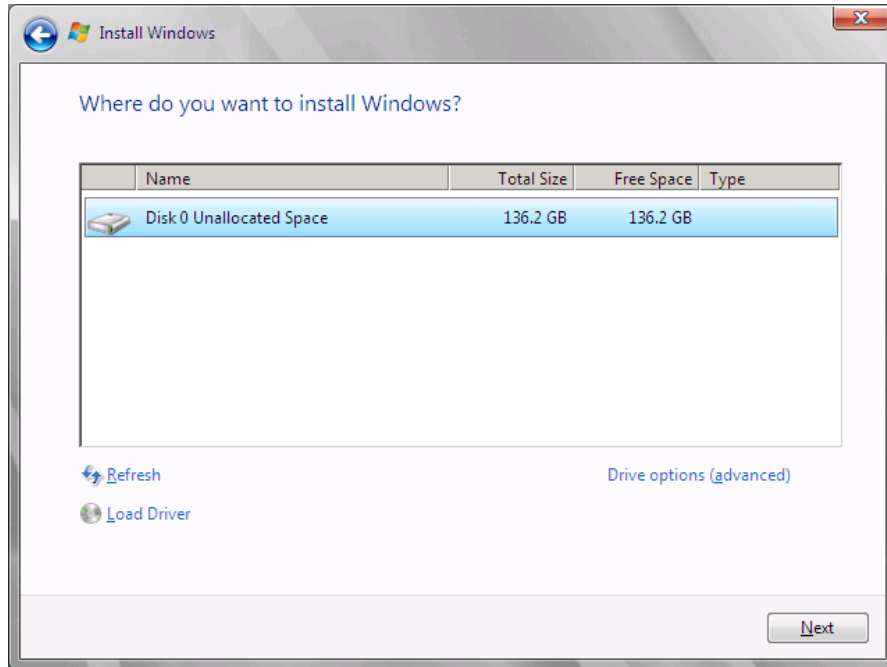
LSI Logic Embedded MegaRAID (A:\MegaSR.INF)

Click [Next] and go on to the **step 4**.

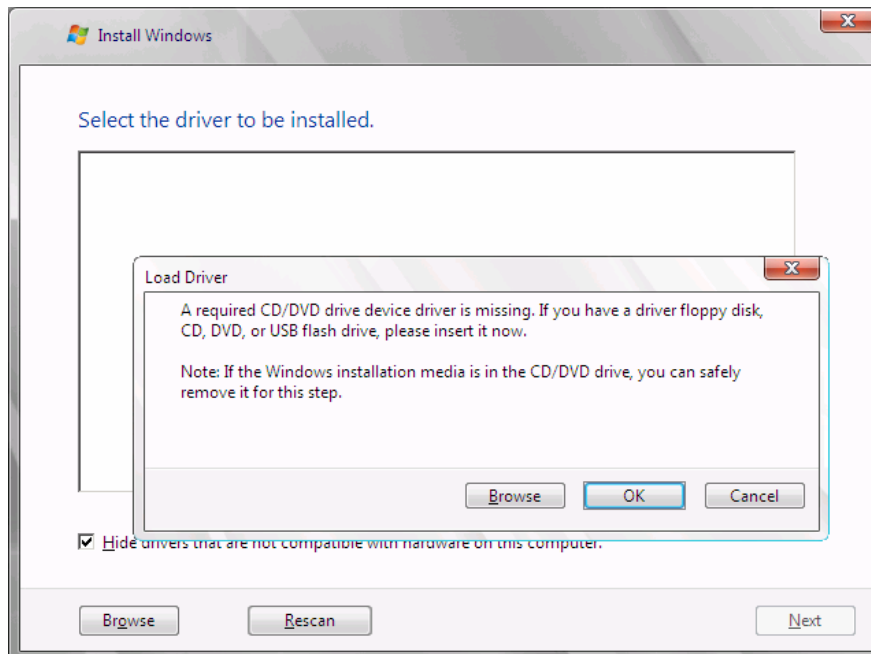


**For SAS array controller card (MegaRAID SAS)**

When the wizard window is displayed as below, click the "Load Driver", go on to the driver installation window.

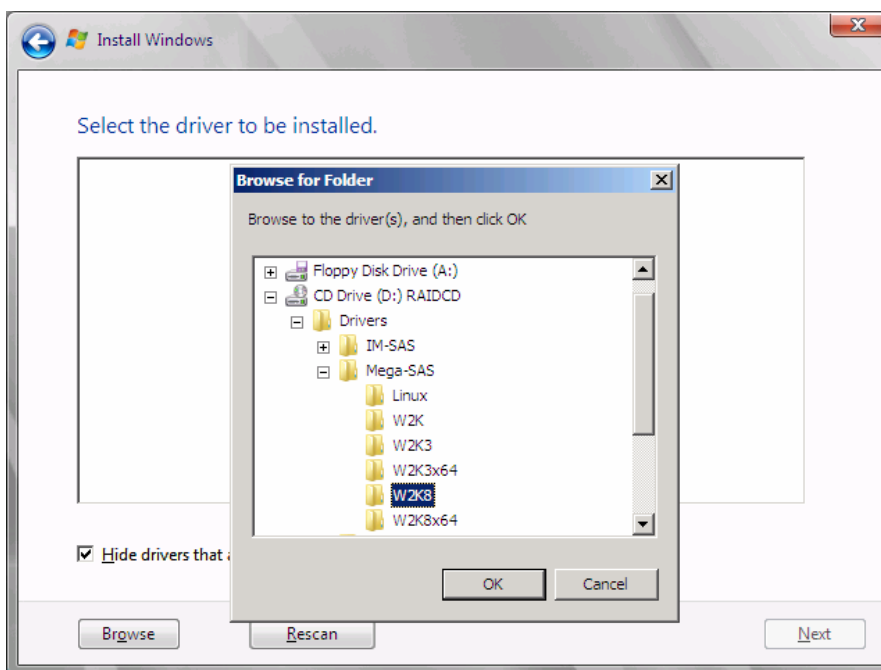


At the display below, change the Windows installation DVD to Array Controller Document & Tool CD. Then click the [Browse].



Select the folder in which the installed driver is saved.

Select the folder at the following location, and click [OK].  
**For Windows Server 2008 Standard/Enterprise (32-bit)**  
[CD/DVD drive]:\Drivers\Mega-SAS\W2K8  
**For Windows Server 2008 Standard/Enterprise (64-bit)**  
[CD/DVD drive]:\Drivers\Mega-SAS\W2K8x64



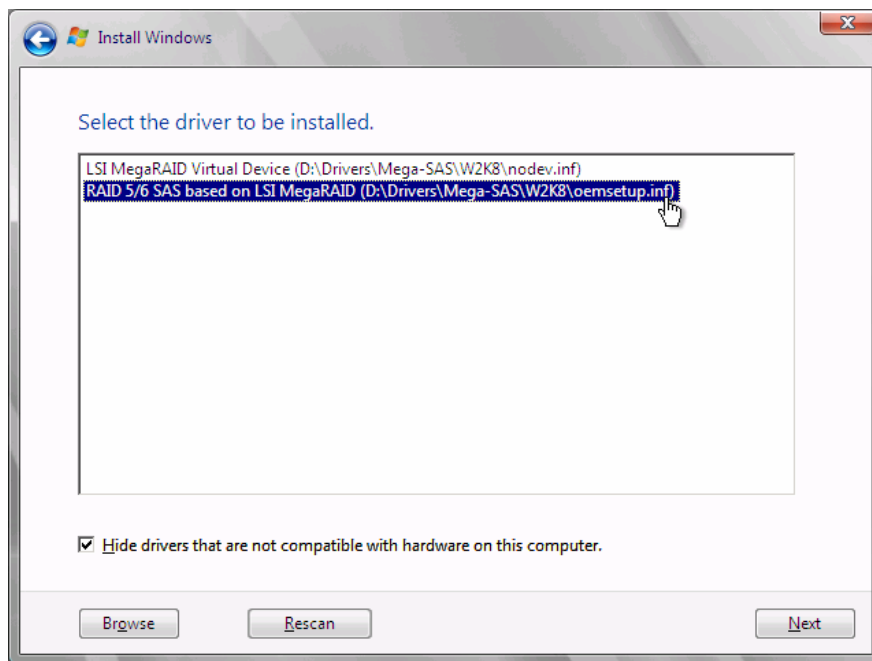
Select the following driver, and click [Next].

**For Windows Server 2008 Standard/Enterprise (32-bit)**

RAID 5/6 SAS based on LSI MegaRAID  
([CD/DVD drive]:\Drivers\Mega-SAS\W2K8\oemsetup.inf)

**For Windows Server 2008 Standard/Enterprise (64-bit)**

RAID 5/6 SAS based on LSI MegaRAID  
([CD/DVD drive]:\Drivers\Mega-SAS\W2K8x64\oemsetup.inf)



Change the disc to Windows installation DVD again, and go on to the **step 4**.

**For SAS controller card or onboard IM (Integrated Mirroring SAS)**

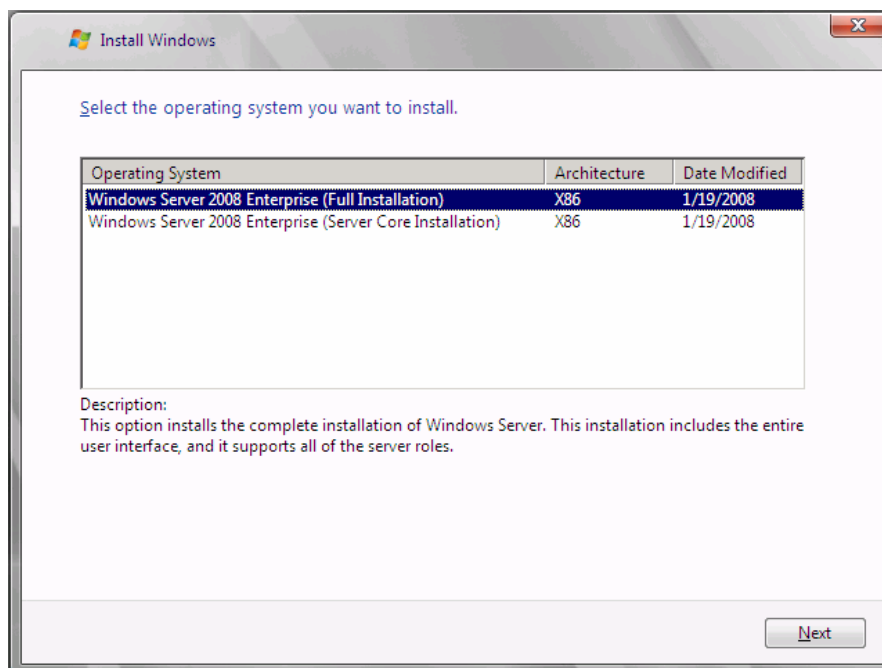
No manual driver installation is required. Go on to the **step 4**.

**For Unconfigured array**

No manual driver installation is required. Go on to the **step 4**.

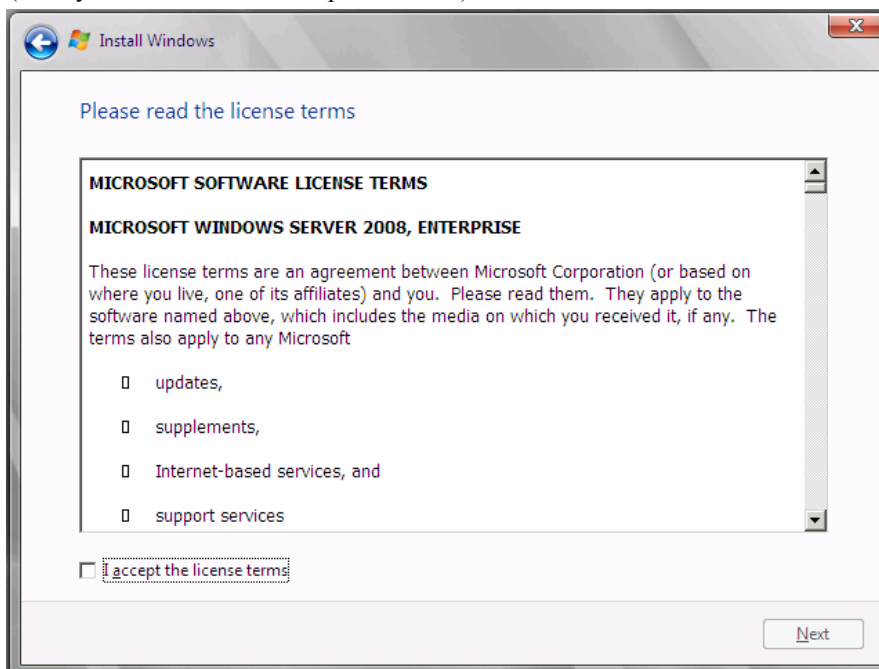
**4 Select OS installation type.**

Select "Windows Server 2008 Enterprise (Full Installation)" and click [Next].



- 5 **When the following window appears, read the license terms and put a checkmark to agree. Then click [Next].**

The program automatically executes the OS installation.  
(The system is rebooted a couple of times.)



- 6 **Install the LAN driver**

For details, refer to "3.3 Installation of LAN Driver".

- 7 **Install the Intel Chipset driver**

**For RX200 S4 / TX300 S4 / RX300 S4 / RX600 S4**

This step is not required. Go on to the **step 8**.

**For ECONE1 100 S2 / RX100 S5 / TX150 S6**

Double click "infnst\_autol.exe" and run the setting wizard. When the installation is completed, restart the system.

- 8 **Install the Display driver**

**For RX100 S5 / TX150 S6 / RX200 S4 / RX300 S4 / TX300 S4**

Double click "install\_kronos2\_vga.bat" and run the setting wizard. When the installation completed, restart the system.

**For RX600 S4**

Double click "ServerEnginesG200e\_Kronos2\_SETUP.exe" and run the setting wizard. When the installation completed, restart the system.

**For ECONE1 100 S2**

1. Click [Start] button - [Administrative Tools] - [Computer Management]
2. From the displayed list, click [Device Manager]
3. Double click "Standard VGA Graphic Adapter" under the "Display adapter". Properties window will appear.

4. Click [Driver] tab, and click the "Update Driver".  
"Updates for Driver software" window appears.
5. Click "Refer to the computer, search the driver software "
6. Click [Browse] and select the folder at the following location.  
**For Windows Server 2008 Standard (32-bit)**  
 [CD/DVD drive]:\ATI\32\_ATI\Driver\XP\_INF  
**For Windows Server 2008 Standard (64-bit)**  
 [CD/DVD drive]:\ATI\64\_ATI\Driver\XP6A\_INF
7. When driver installation is finished, the following message is displayed.  

Installation is finished for the driver software of this device : ATI ES1000
--
8. Restart the server.



➤ VGA chip installation for ECONEL 100 S2 cannot be executed via installer. VGA chip from ATI needs a driver different from other servers. Thus, the driver is not supplied with the Startup Disc. Please download the required driver from the Web page.

## 9 Install Broadcom Advanced Control Suite / Intel PROset

### **For ECONEL 100 S2 / RX600 S4**

Run the "Dxsetup.EXE" file and install Intel PROset as following process.  
When the installation is completed, the tool is available for use.

1. Run the "Dxsetup.EXE" file and install Intel PROset  
**For Windows Server 2008 (32-bit)**  
 [CD/DVD drive]:\DRIVERS\LAN\Intel\APPS\PROSETDX\Vista32\DxSetup.EXE  
**For Windows Server 2008 (64-bit)**  
 [CD/DVD drive]:\DRIVERS\LAN\Intel\APPS\PROSETDX\Vista64\DxSetup.EXE
2. Click [Next]
3. Select [Agree] and click [Next]
4. Select "Driver and/or Intel PROset and Advanced Network Service" and click [Next]
5. Click [Install]
6. Click [Complete]

### **For RX100 S5 / TX150 S6 / RX200 S4 / TX300 S4 / RX300 S4**

Run the "setup.exe" file and install Broadcom Management Programs.  
When the installation is completed, the tool is available for use.

For instructions for the tool, click [Control panel] - [Broadcom Advanced Control Suite 3]

## 10 Configure each setting for RAID Management Tool (ServerView RAID)

Required setting differs depending on the type of array controller. Please refer to the manual enclosed Array Controller Document & Tool CD for detail and setting instruction.

- Setting up an array administrator account
- Setting HDD Check Scheduler
- Setting Battery Recalibration Scheduler
- Monitoring terminal or failure event monitoring setting via e-mail



**1.1 Install ServerView**

ServerView download is available at:

<http://www.fujitsu.com/global/services/computing/server/ia/driver/>

For instructions for installing ServerView, refer to the following manuals.

ServerView Agent	"ServerView User's Guide (For Windows Agent)"
ServerView Console	"ServerView User's Guide"
ServerView RemoteControlService	"ServerView User's Guide (For RemoteControlService)"

The installation of Windows Server 2008 has completed.

**■ Before starting operation**

After installing OS, refer to "Chapter 4 Operations after OS Installation" in "User's Guide", and take necessary procedures.

## 3.3. Installation of LAN Driver

This section explains how to install LAN driver.

### 3.3.1. Updating LAN Driver

Go through the following procedure for all the LAN device names under [Network adapters] and [System device] on [Device Manager].

- 1 **Depending on the mounted LAN device, insert the driver disk created from the PRIMERGY Startup Disc, or set the device where the downloaded driver file is saved, into the server.**

**For Windows Server 2008 install model**

Set the PRIMERGY Startup Disc into the server.

**For other models**

Use the driver released on Web.

- 2 **Click [Start] - [Administrative Tools] - [Computer Manager].**
- 3 **Click [Device Manager].**
- 4 **Double click a LAN device name under [Network adapters].**  
For LAN device name, refer to "3.3.3 LAN Device Name".
- 5 **Double click the LAN Device icon.**  
Properties window appears.
- 6 **Click [Update Driver] on the [Driver] tab window.**  
The "Welcome to the Hardware Update Wizard" window appears.
- 7 **Select "Install the software automatically (Recommended)", and click [Next].**  
Driver installation starts.
- 8 **Click [Browse] and select the folder where the driver is saved.**
- 9 **The following message is displayed when the installation is finished.**

Driver software installation for this device is completed: <Lan device name>
---
- 10 **Click [Close] to close the properties window.**

**For RX200 S4 / RX300 S4 / TX300 S4**

Update the driver for LAN device under the "System Device" with the same process as above.

### 3.3.2. Installing LAN Driver

Use the following procedure and install LAN driver.

- 1 **Insert the driver disk created from the PRIMERGY Startup Disc, or set the device where the driver file downloaded from the webpage is saved, into the server.**

**For Windows Server 2008 installation model**

Set the PRIMERGY Startup Disc into the server.

**For other models**

Use the driver released on Web.

- 2 **Click [Start] - [Administrative Tools] - [Computer Manager].**
- 3 **Click [Device Manager].**
- 4 **Double click [*LAN Device Name*] under the [Network adapters] Properties window appears.**
- 5 **Click [Driver] tab, then click [Updates Driver] tab. "Updating Driver Software" window appears.**
- 6 **Select [Refer to the computer, search the driver software]**
- 7 **Click [Browse], and select the folder where the driver is located.**
- 8 **The following message is displayed when the installation is finished.**

Driver software installation for this device is completed:  
<Lan device name>

- 9 **Click [Close] to close the properties window.**

When the installation is finished, completion message appears.  
For *LAN Device Name*, refer to "3.3.3 LAN Device Name".

### 3.3.3. LAN Device Name

LAN device names differ depending on your PRIMERGY type and LAN card.

- **PRIMERGY ECONEL 100 S2**

[PRIMERGY ECONEL 100 S2](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Intel(R) 82566DM-2 Gigabit Network Connection
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter

- **PRIMERGY RX100 S5**

[PRIMERGY RX100 S5](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	LAN1: Broadcom NetXtreme Gigabit Ethernet LAN2: Broadcom NetXtreme Gigabit Ethernet #2
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY TX150 S6**

[PRIMERGY TX150 S6](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN	Broadcom NetXtreme Gigabit Ethernet
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter

- **PRIMERGY RX200 S4**

[PRIMERGY RX200 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN (Under the Network Adapter / Under the System device)	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client) Broadcom BCM5708C NetXtreme II GigE
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY RX300 S4**

[PRIMERGY RX300 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN (Under the Network Adapter / Under the System device)	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client) Broadcom BCM5708C NetXtreme II GigE
PG-1853L	Intel(R) PRO/1000 GT Desktop Adapter
PG-1863L	Intel(R) PRO/1000 GT Dual Port Server Adapter
PG-1882L	Intel(R) PRO/1000 MF Server Adapter
PG-1892L	Intel(R) PRO/1000 MT Server Adapter
PG-2861L	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289L	Intel(R) PRO/1000 PT Server Adapter
PG-288L	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY TX300 S4**

[PRIMERGY TX300 S4](#)

Onboard LAN / LAN card	LAN device name
Onboard LAN (Under the Network Adapter / Under the System device)	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client) Broadcom BCM5708C NetXtreme II GigE
Onboard LAN	Broadcom BCM5708C NetXtreme II GigE (NDIS VBD Client) Broadcom BCM5708C NetXtreme II GigE
PG-1853	Intel(R) PRO/1000 GT Desktop Adapter
PG-1863	Intel(R) PRO/1000 GT Dual Port Server Adapter
PG-1882	Intel(R) PRO/1000 MF Server Adapter
PG-1892	Intel(R) PRO/1000 MT Server Adapter
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter
PG-288	Intel(R) PRO/1000 PF Server Adapter

- **PRIMERGY RX600 S4**

[PRIMERGY RX600 S4](#)

<b>Onboard LAN / LAN card</b>	<b>LAN device name</b>
Onboard LAN	Mainboard LAN Intel(R) PRO/1000 EB Network Connection with I/O Acceleration I/O riser LAN Intel (R) 82575EB Gigabit Network Connection
PG-2861	Intel(R) PRO/1000 PT Dual Port Server Adapter
PG-289	Intel(R) PRO/1000 PT Server Adapter
PG-288	Intel(R) PRO/1000 PF Server Adapter

## Chapter 4

# Installing Windows Server 2008 Server Core

# 4

**This chapter explains how to install  
Server Core manually.**

- 4.1 Preparation
- 4.2 Installation Procedure
- 4.3 Installation of LAN Driver

\* Windows Server® 2008 corresponding  
The latest information is provided at the URL:  
(<http://www.fujitsu.com/downloads/PRMRGY/support-matrix.pdf>)  
The attached software is not supported for Windows Server® 2008.

## 4.1. Preparation

This section explains required preparation for installation.

### 4.1.1. Creating Driver Disk

When installing the OS manually, it is necessary to create a driver installation disk beforehand. There is a 2-type procedure for creating the driver disk by using PRIMERGY Startup Disc supplied with the server and by downloading from webpage.

- About the procedure for creating a driver disk from PRIMERGY Startup Disc, refer to "User's Guide".
- About the procedure for creating a driver from download file on Web (<http://www.fujitsu.com/global/services/computing/server/ia/driver/>), refer to the published manual on the webpage.
- Create a latest version of Array Controller Document & Tool CD by downloading files from Web site.

#### ■ Driver for array controller

Check your array controller type and create a required driver disk before installing Windows Server 2008 Server Core.

Onboard Software RAID (Embedded MegaRAID SATA)	Create following driver disk from Array Controller Document & Tool CD.  Embedded MegaRAID SATA Windows Server 2008 Drivers Disk or Embedded MegaRAID SATA Windows Server 2008 for x64 Edition Drivers Disk
SAS array controller card (MegaRAID SAS)	No driver disk is necessary. Driver is installed from Array Controller Document & Tool CD directly
SAS controller card or onboard IM (Integrated Mirroring SAS)	No driver installation is required.
Unconfigured array	No driver installation is required.

#### ■ Driver for onboard LAN / expansion card

A driver disk you create differs depending on your PRIMERGY type. Check your PRIMERGY type and create an appropriate driver disk.



- For the latest driver, download files from the website (<http://www.fujitsu.com/global/services/computing/server/ia/driver/>)
- Driver name could be changed.

● **PRIMERGY ECONE1 100 S2**

[PRIMERGY ECONE1 100 S2](#)

Onboard LAN / Expansion card	Driver
Intel Chipset driver	Intel Chipset Driver for Windows Server 2008
Onboard LAN / LAN card (PG-1853)	Onboard / PG-18xx/28xx LAN Driver V12.4
SAS array controller card (PG-248BC)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
Display driver	Windows Server 2008 standard driver
Other expansion card	Driver attached with each expansion card

Note: Driver disk is unable to be created from ServerStart for ECONE1 100 S2.

● **PRIMERGY RX100 S5**

[PRIMERGY RX100 S5](#)

Onboard LAN / Expansion card	Driver
Intel Chipset driver	Intel Chipset Driver for Windows Server 2008
Onboard LAN	Windows 2008 for x64 Edition Drivers Disk V10.62.1.5
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2008 / R2 x64 Edition V7.2.0.0
Display 32-bit driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

● **PRIMERGY TX150 S6**

[PRIMERGY TX150 S6](#)

Onboard LAN / Expansion card	Driver
Intel Chipset driver	Intel Chipset Driver for Windows Server 2008
Onboard LAN	Windows 2008 for x64 Edition Drivers Disk V10.62.1.5
LAN card (PG-1853)	PG-185x/186x/188x/189x PCI LAN Driver for Windows 2008 / R2 x64 Edition V12.4
LAN card (PG-2861 / PG-289)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SAS array controller card (PG-248B / PG-248C)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2008 / R2 x64 Edition V7.0.0.6
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card



**PRIMERGY RX200 S4**

**PRIMERGY RX200 S4**

Onboard LAN / Expansion card	Driver
Onboard LAN & Broadcom Advanced Control Suite for Windows 2008/2008 x64	Windows 2008 Drivers Disk / for x64 Edition Drivers Disk V4.1.3.0
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SAS array controller card (PG-248B / PG-248C / PG-244C1)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2008 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2008 / R2 x64 Edition V1.20a3
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

● **PRIMERGY TX300 S4**

**PRIMERGY TX300 S4**

Onboard LAN / Expansion card	Driver
Onboard LAN & Broadcom Advanced Control Suite for Windows 2008/2008 x64	Windows 2008 Drivers Disk V4.1.3.0 Windows 2008 for x64 Edition Drivers Disk V4.1.3.0
LAN card (PG-1853 / PG-1863 / PG-1882 / PG-1892)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
LAN card (PG-2861 / PG-289 / PG-288)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SAS array controller card (PG-244C / PG-248B / PG-248C1)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281)	Windows Server 2008 standard driver
Fibre Channel card (PG-FC202)	Windows Server 2008 standard driver
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

\* Driver name could be changed.

● **PRIMERGY RX300 S4**

**PRIMERGY RX300 S4**

Onboard LAN / Expansion card	Driver
Onboard LAN & Broadcom Advanced Control Suite for Windows 2008/2008 x64	Windows 2008 Drivers Disk V4.1.3.0 Windows 2008 for x64 Edition Drivers Disk V4.1.3.0
LAN card (PG-1853L / PG-1863L / PG-1882L / PG-1892L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
LAN card (PG-2861L / PG-289L / PG-288L)	PG-286x/288x/289x PCI-ex LAN Driver for Windows 2008 / R2 x64 Edition V12.4
SAS array controller card (PG-244CL / PG-248CL)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281L)	PG-2281L SCSI Driver for Windows 2008 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2008 / R2 x64 Edition V1.20a3
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

\* Driver name could be changed.

- **PRIMERGY RX600 S4**

## PRIMERGY RX600 S4

Onboard LAN / Expansion card	Driver
Onboard LAN / LAN card (PG-2861 / PG-289 / PG-288)	Onboard/PG-18xx/28xx LAN Driver V12.4
SAS array controller card (PG-244C)	MegaRAID SAS Windows Server 2008 Drivers Disk or MegaRAID SAS Windows Server 2008 for x64 Edition Drivers Disk
SCSI card (PG-2281)	PG-2281 SCSI Driver for Windows 2008 / R2 x64 Edition V7.0.0.6
Fibre Channel card (PG-FC202)	PG-FC202 Driver for Windows 2008 / R2 x64 Edition V1.20a3
Display driver	Onboard VIDEO Driver for Windows 2008/2008 x64
Other expansion card	Driver attached with each expansion card

### 4.1.2. Configuring Array

When you operate with array configurations, configure arrays first before you install OS.

1 **Turn on the server.**

2 **Configure an array.**

The method differs depending on your array controller.

**For Onboard Software RAID (Embedded MegaRAID SATA)**

When the following message appears, press the [Ctrl] + [M] keys or the [Enter] key.

Press Ctrl-M or Enter to run LSI Software RAID Setup Utility.

SATA Setup Utility starts up, and Management Menu appears.

For details, refer to "Embedded MegaRAID SATA User's Guide" in Array Controller Document & Tool CD.

**For SAS controller card or onboard IM (Integrated Mirroring SAS)**

When the following message appears, press the [Ctrl] + [C] keys.

Press Ctrl C to start LSI Logic Configuration Utility

BIOS Utility starts up.

For details, refer to "Integrated Mirroring SAS User's Guide" in Array Controller Document & Tool CD.

**For SAS array controller card (MegaRAID SAS)**

Turn on the server. When the following message appears, press the [Ctrl] + [H] keys.

Press <Ctrl><H> for WebBIOS

WebBIOS starts up.

For details, refer to "MegaRAID SAS User's Guide" in Array Controller Document & Tool CD.

3 **Turn off the server.**

### 4.1.3. Installing Internal Options

---

The installation sequence depends on the internal options which must be installed before or after the OS installation. Make sure to read "2.1.1 Installing Internal Options" in "User's Guide", and follow the procedure appropriate for your internal option(s).



If an internal option device that must be installed after the OS installation has been already installed, remove the device, and reinstall the device after completion of the OS installation.

#### ■ Options to be installed before the OS installation

**Examples\*:**

- Internal hard disk unit to install OS
- CPU
- Memory modules
- Expansion cards
- USB floppy disk drive
- Internal DVD-ROM unit

#### ■ Options to be installed after the OS installation

**Examples\*:**

- Optional SCSI/SAS devices
- Internal hard disk units where the OS is not installed
- Internal DAT72 unit or internal data cartridge drive unit
- Internal HDD Unit Bay Conversion kit
- A 5-inch internal device option

\*: Applicable options differ depending on your PRIMERGY type.

## 4.2. Installation Procedure

This section explains how to install Windows Server 2008 Server Core manually.

### 1 Prepare the installation disc for Windows Server 2008

Turn on the server, and immediately insert the Windows Server 2008 DVD-ROM (\*1) into the CD/DVD drive. When the active area is specified on the hard disk, the following message appears.

Press any key to boot from CD or DVD . . . .

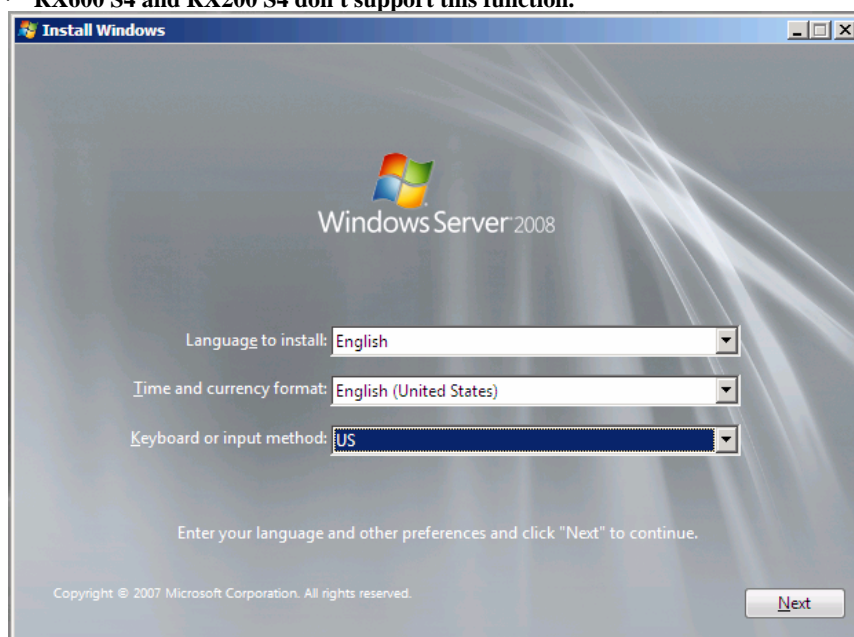
Press any key while this message is displayed to boot from the CD/DVD drive.

\*1: There is 2-type of DVD-ROM; for 32-bit and 64-bit. Please check them before inserting the disc.

### 2 Windows Server 2008 installation setup window appears.

Select the each item and click [Next] button. According to the setup wizard, continue the installation procedure.

- \* If you use Bit Locker, specified partition format is required for installation. For more details, please refer to "Bit Locker manual".
- \* RX600 S4 and RX200 S4 don't support this function.



### 3 Install RAID driver manually.

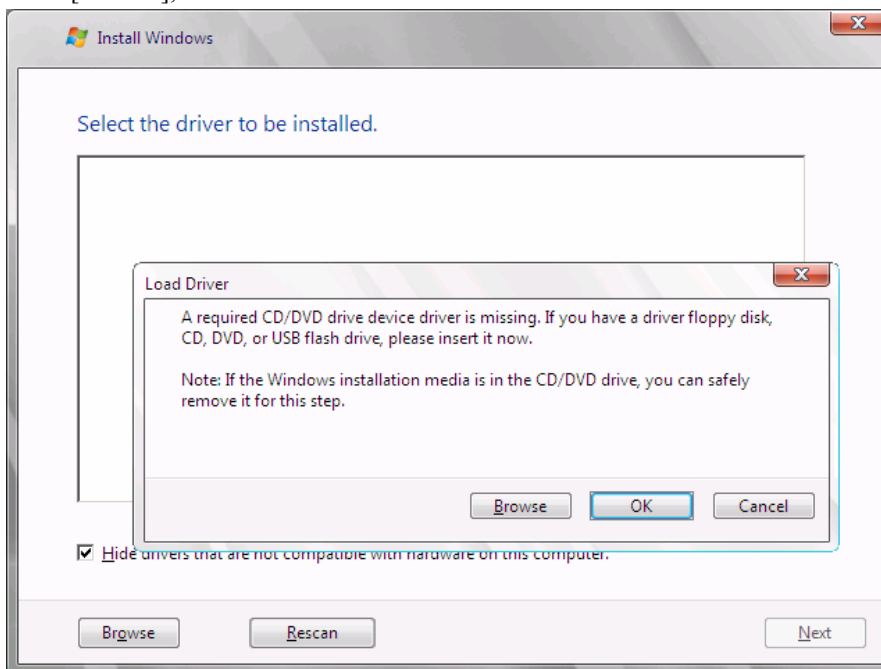
The procedure differs depending on the type of driver.

- For Onboard Software RAID (Embedded MegaRAID SATA), see p.53.
- For SAS array controller card (MegaRAID SAS), see p. 54.
- For SAS controller card or onboard IM (Integrated Mirroring SAS), see p. 56.
- For unconfigured array, see p. 56.

Depending on the system configuration, this step and step 4 and 5 might be reversed.

**For Onboard Software RAID (Embedded MegaRAID SATA)**

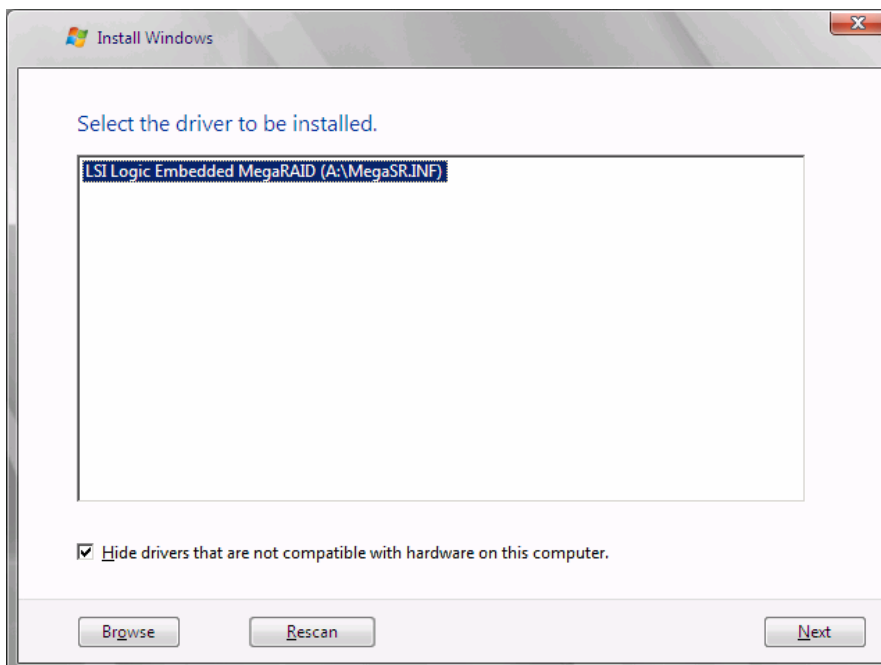
Set the driver floppy disk when the wizard window below is displayed. Click [Browse], and select the folder in which the installed driver is saved.



After selecting the driver, the following message is displayed.

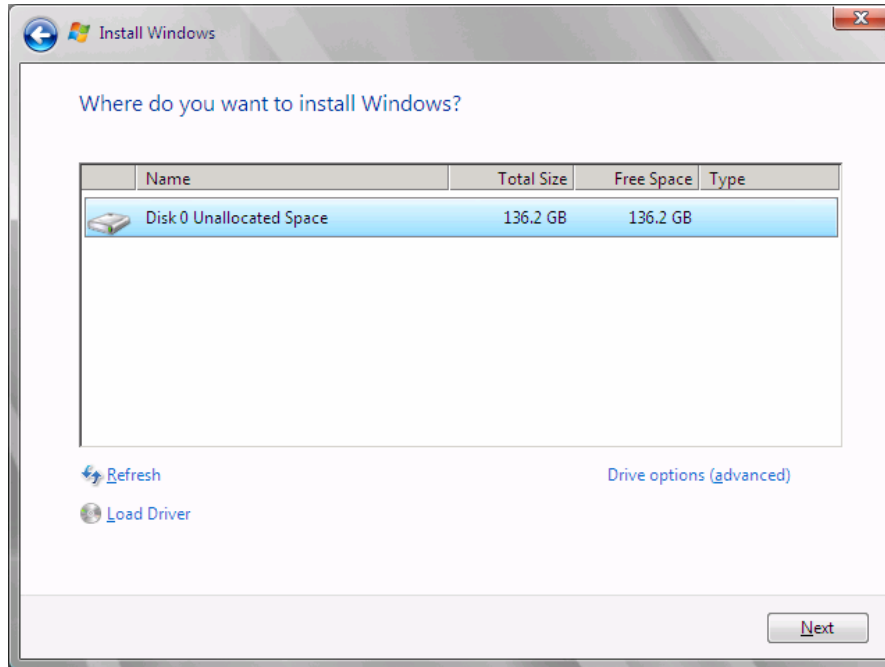
LSI Logic Embedded MegaRAID (A:\MegaSR.INF)

Click [Next] and go on to the **step 4**.

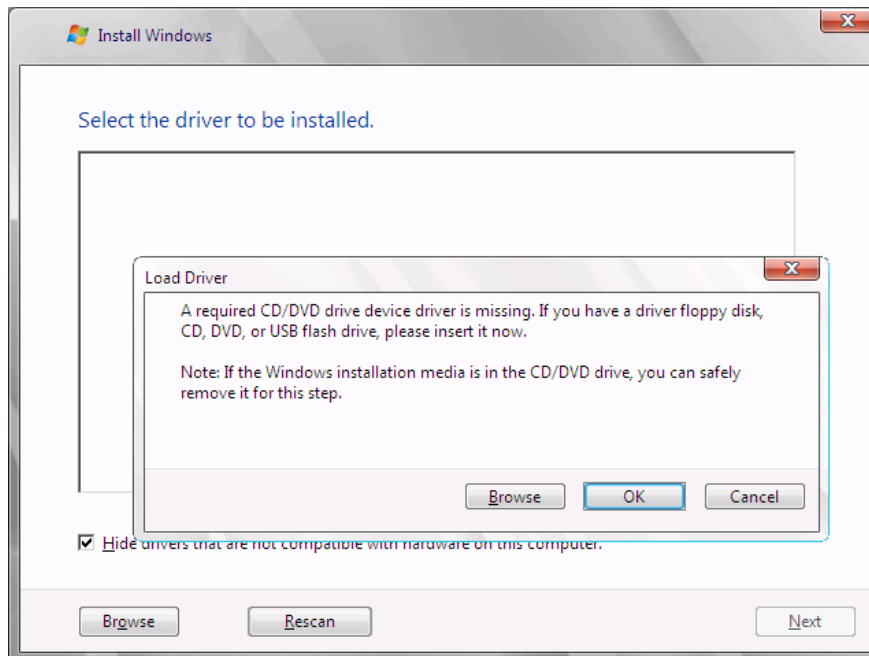


**For SAS array controller card (MegaRAID SAS)**

When the wizard window is displayed as below, click the "Load Driver", go on to the driver installation window.

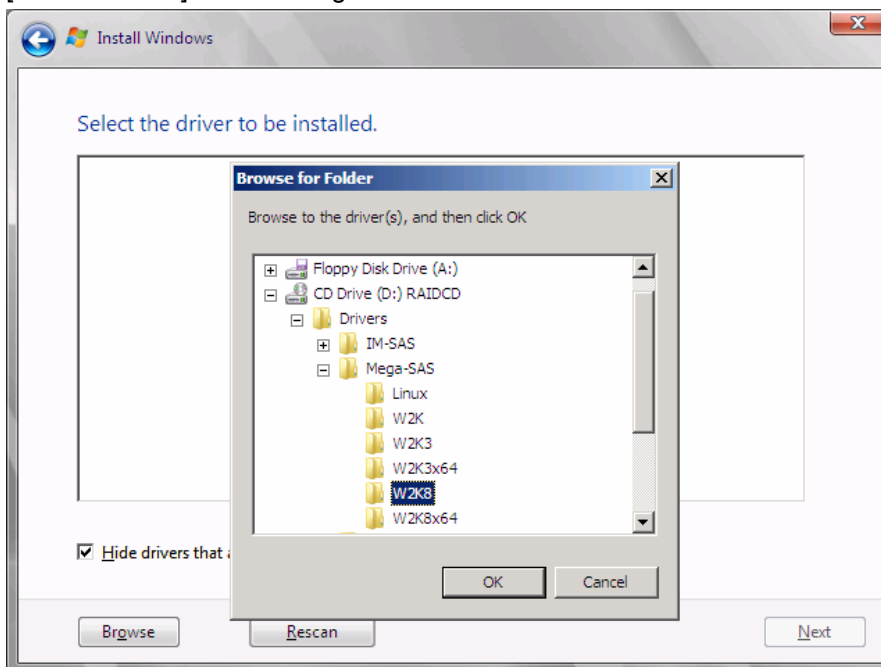


At the display below, change the Windows installation DVD to Array Controller Document & Tool CD. Then click the [Browse].



Select the folder in which the installed driver is saved.

Select the folder at the following location, and click [OK].  
**For Windows Server 2008 Standard/Enterprise (32-bit)**  
[CD/DVD drive]:\Drivers\Mega-SAS\W2K8  
**For Windows Server 2008 Standard/Enterprise (64-bit)**  
[CD/DVD drive]:\Drivers\Mega-SAS\W2K8x64



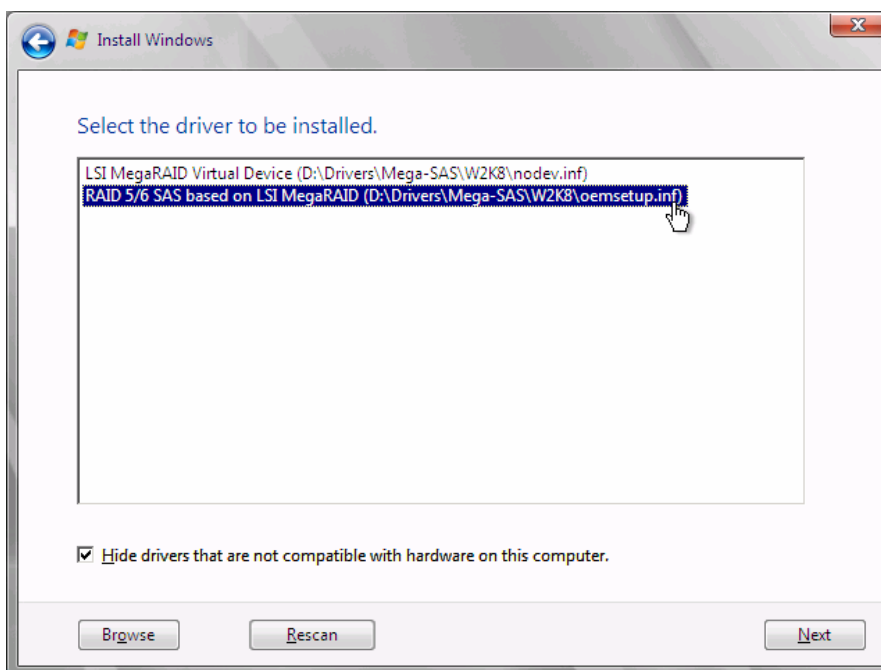
Select the following driver, and click [Next].

**For Windows Server 2008 Standard/Enterprise (32-bit)**

RAID 5/6 SAS based on LSI MegaRAID  
([CD/DVD drive]:\Drivers\Mega-SAS\W2K8\oemsetup.inf)

**For Windows Server 2008 Standard/Enterprise (64-bit)**

RAID 5/6 SAS based on LSI MegaRAID  
([CD/DVD drive]:\Drivers\Mega-SAS\W2K8x64\oemsetup.inf)



Change the disc to Windows installation DVD again, and go on to the **step 4**.

**For SAS controller card or onboard IM (Integrated Mirroring SAS)**

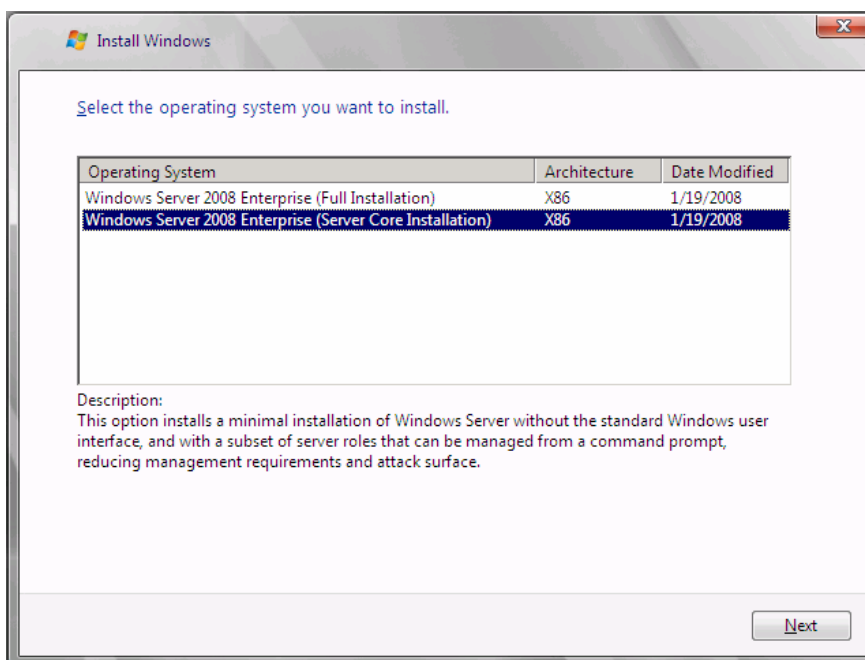
No manual driver installation is required. Go on to the **step 4**.

**For Unconfigured array**

No manual driver installation is required. Go on to the **step 4**.

**4 Select the installing Operation System**

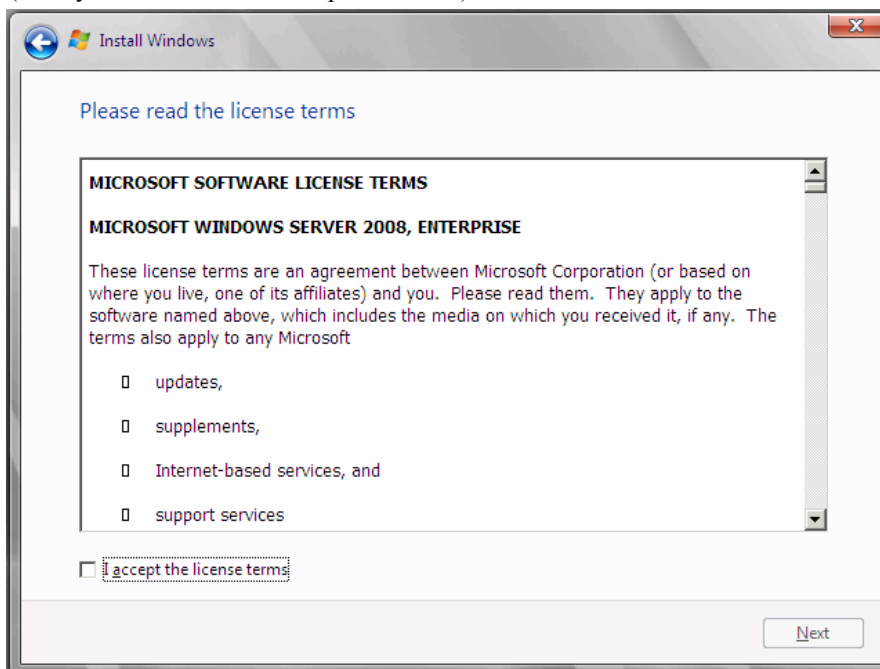
At the window below, select "Windows Server 2008 Enterprise (Server Core installation)" and click [Next].





- 5 **When the following window appears, read the license terms and put a checkmark to agree. Then click [Next].**

The program automatically executes the OS installation.  
(The system is rebooted a couple of times.)



- 6 **Install the LAN driver**

For details, refer to "4.3 Installation of LAN Driver".

- 7 **Install the Intel Chipset driver**

**For RX200 S4 / TX300 S4 / RX300 S4 / RX600**

This step is not required. Go on to the **step 8**.

**For ECONE L 100 S2 / RX100 S5 / TX150 S6**

- 1 Insert the installation disc into the CD/DVD drive.
- 2 Execute commands below under Command Prompt.  
[CD/DVD drive]:\infinst\_autol.exe -s

- 8 **Install the SNMP Service**

1. Execute commands below. (case-sensitive)  
>start /w ocsetup SNMP-SC
2. Confirm installation properly  
>oclist | findstr SNMP

If installed properly, the following message appears.

```
Installed:SNMP-SC
```

### 9 **Configure each setting for RAID Management Tool (ServerView RAID)**

Required setting differs depending on the type of array controller. Please refer to the manual enclosed Array Controller Document & Tool CD for details and setting instruction.

- Setting up an array administrator account
- Setting HDD Check Scheduler
- Setting Battery Recalibration Scheduler
- Monitoring terminal or failure event monitoring setting via e-mail

### 10 **Install ServerView Agent**

ServerView Agent is downloadable at:

<http://www.fujitsu.com/global/services/computing/server/ia/driver/>

For instructions for installing ServerView Agent, refer to "ServerView User's Guide (For Windows Agent)".



- ServerView Console and ServerView RemoteControlService cannot be installed in Windows Server 2008 Server Core. To install and use them, another system which is applicable for them is needed.

The installation of Windows Server 2008 Server Core has completed.

### ■ **Before starting operation**

After installing OS, refer to "Chapter 4 Operations after OS Installation" in "User's Guide", and take necessary procedures.

## 4.3. Installation of LAN Driver

---

This section explains how to install LAN driver.

- 1 **Insert the driver disk created from the PRIMERGY Startup Disc, or set the device where the driver file downloaded from the webpage is saved, into the server.**
  - For Windows Server 2008 installation model**  
Set the PRIMERGY Startup Disc into the server.
  - For other model**  
Use the driver released on Web.
- 2 **At the Management Console, move to the folder where the driver file is stored, and execute the following commands.**

**For RX100 S5 / TX150 S6**

**Windows Server 2008 Standard (32-bit)**

>pnputil -i -a b57nd60x.inf

**Windows Server 2008 Standard (64-bit)**

>pnputil -i -a b57nd60a.inf

**For ECONEL 100 S2**

**Windows Server 2008 Standard (32-bit)**

>pnputil -i -a e1000325.inf

**Windows Server 2008 Standard (64-bit)**

>pnputil -i -a e1e6032e.inf

**For RX200 S4 / RX300 S4 / TX300 S4**

>pnputil -i -a bxnd.inf

>pnputil -i -a bxvbd.inf

**For RX600 S4**

**Windows Server 2008 Standard (32-bit)**

**Main board LAN**

>pnputil -i -a e1e6032.inf

**I/O riser LAN**

>pnputil -i -a e1g6032.inf

**Windows Server 2008 Standard (64-bit)**

**Main board LAN**

>pnputil -i -a e1e6032e.inf

**I/O rider LAN**

>pnputil -i -a e1g6032e.inf

- 3 The following message appears when the driver installation completed properly.

**For RX100 S5 / TX150 S6**

**Windows Server 2008 Standard (32-bit)**

```
Processing inf : b57nd60x.inf
Successfully installed the driver on a device on the system.
Driver package added successfully.
Published name :oem<x>.inf
```

**Windows Server 2008 Standard (64-bit)**

```
Processing inf : b57nd60a.inf
Successfully installed the driver on a device on the system.
Driver package added successfully.
Published name :oem<x>.inf
```

**For ECONEL 100 S2**

**Windows Server 2008 Standard (32-bit)**

```
Processing inf : e1000325.inf
Successfully installed the driver on a device on the system.
Driver package added successfully.
Published name :oem<x>.inf
```

**Windows Server 2008 Standard (64-bit)**

```
Processing inf : e1e6032e.inf
Successfully installed the driver on a device on the system.
Driver package added successfully.
Published name :oem<x>.inf
```

**For RX200 S4 / RX300 S4 / TX300 S4**

```
Processing inf : bxnd.inf
Successfully installed the driver on a device on the system.
Driver package added successfully.
Published name :oem<x>.inf
```

```
Processing inf : bxvbd.inf
Successfully installed the driver on a device on the system.
Driver package added successfully.
Published name :oem<x>.inf
```

**For RX600 S4**

**Windows Server 2008 Standard (32-bit)**

Processing inf : e1e6032.inf  
D Successfully installed the driver on a device on the system.  
Driver package added successfully.  
Published name :oem<x>.inf

Processing inf : e1g6032.inf  
Successfully installed the driver on a device on the system.  
Driver package added successfully.  
Published name :oem<x>.inf

**Windows Server 2008 Standard (64-bit)**

Processing inf : e1e6032e.inf  
Successfully installed the driver on a device on the system.  
Driver package added successfully.  
Published name :oem<x>.inf

Processing inf : e1g6032e.inf  
Successfully installed the driver on a device on the system.  
Driver package added successfully.  
Published name :oem<x>.inf

<x> differs in order of installation.

## **Manual OS Installation**

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