PRIMERGY TX100 S2
Server
Operating Manual

Edition March 2012
The User Documentation Department would like to know your opinion of this manual. Your feedback helps us optimize our documentation to suit your individual needs.

Feel free to send us your comments by e-mail to email: manuals@ts.fujitsu.com.

Certified documentation according to DIN EN ISO 9001:2000

To ensure a consistently high quality standard and user-friendliness, this documentation was created to meet the regulations of a quality management system which complies with the requirements of the standard DIN EN ISO 9001:2000.

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www.cognitas.de

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Before reading this manual

For your safety
This manual contains important information for safely and correctly using this product.

Carefully read the manual before using this product. Pay particular attention to the accompanying manual "Safety Notes and Regulations" and ensure these safety notes are understood before using the product. Keep this manual and the manual "Safety Notes and Regulations" in a safe place for easy reference while using this product.

Radio interference
This product is a "Class A" ITE (Information Technology Equipment). In a domestic environment this product may cause radio interference, in which case the user may be required to take appropriate measures. VCCI-A

Aluminum electrolytic capacitors
The aluminum electrolytic capacitors used in the product's printed circuit board assemblies and in the mouse and keyboard are limited-life components. Use of these components beyond their operating life may result in electrolyte leakage or depletion, potentially causing emission of foul odor or smoke.

As a guideline, in a normal office environment (25°C) operating life is not expected to be reached within the maintenance support period (5 years). However, operating life may be reached more quickly if, for example, the product is used in a hot environment. The customer shall bear the cost of replacing replaceable components which have exceeded their operating life. Note that these are only guidelines, and do not constitute a guarantee of trouble-free operation during the maintenance support period.

High safety use
This product has been designed and manufactured for general uses such as general office use, personal use, domestic use and normal industrial use. It has not been designed or manufactured for uses which demand an extremely high level of safety and carry a direct and serious risk to life or body if such safety cannot be ensured.
These uses include control of nuclear reactions in nuclear power plants, automatic airplane flight control, air traffic control, traffic control in mass transport systems, medical devices for life support, and missile guidance control in weapons systems (hereafter, "high safety use"). Customers should not use this product for high safety use unless measures are in place for ensuring the level of safety demanded of such use. Please consult the sales staff of Fujitsu if intending to use this product for high safety use.

**Measures against momentary voltage drop**

This product may be affected by a momentary voltage drop in the power supply caused by lightning. To prevent a momentary voltage drop, use of an AC uninterruptible power supply is recommended.

(This notice follows the guidelines of Voltage Dip Immunity of Personal Computer issued by JEITA, the Japan Electronics and Information Technology Industries Association.)

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**Harmonic Current Standards**

This product conforms to harmonic current standard JIS C 61000-3-2.

**Only for the Japanese market:**

**About SATA hard disk drives**

The SATA version of this server supports hard disk drives with SATA / BC-SATA storage interfaces. Please note that the usage and operation conditions differ depending on the type of hard disk drive used.

Please refer to the following internet address for further information on the usage and operation conditions of each available type of hard disk drive:

http://jp.fujitsu.com/platform/server/primergy/harddisk/
Only for the Japanese market:

![info]

Although described in this manual, some sections do not apply to the Japanese market. These options and routines include:

- USB Flash Module (UFM)
- Replacing the lithium battery
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preface</td>
<td>9</td>
</tr>
<tr>
<td>1.1</td>
<td>Concept and target groups for this manual</td>
<td>9</td>
</tr>
<tr>
<td>1.2</td>
<td>Documentation overview</td>
<td>10</td>
</tr>
<tr>
<td>1.3</td>
<td>Performance features</td>
<td>11</td>
</tr>
<tr>
<td>1.4</td>
<td>Notational conventions</td>
<td>15</td>
</tr>
<tr>
<td>1.5</td>
<td>Technical data</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Installation steps, overview</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>Important notes</td>
<td>21</td>
</tr>
<tr>
<td>3.1</td>
<td>Safety instructions</td>
<td>21</td>
</tr>
<tr>
<td>3.2</td>
<td>CE conformity</td>
<td>29</td>
</tr>
<tr>
<td>3.3</td>
<td>FCC Class A Compliance Statement</td>
<td>29</td>
</tr>
<tr>
<td>3.4</td>
<td>ENERGY STAR</td>
<td>31</td>
</tr>
<tr>
<td>3.5</td>
<td>Transporting the server</td>
<td>33</td>
</tr>
<tr>
<td>3.6</td>
<td>Environmental protection</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>Installing the hardware</td>
<td>37</td>
</tr>
<tr>
<td>4.1</td>
<td>Unpacking the server</td>
<td>38</td>
</tr>
<tr>
<td>4.2</td>
<td>Setting up the server</td>
<td>39</td>
</tr>
<tr>
<td>4.3</td>
<td>Connecting devices to the server</td>
<td>40</td>
</tr>
<tr>
<td>4.4</td>
<td>Connecting the server to the mains</td>
<td>42</td>
</tr>
<tr>
<td>4.5</td>
<td>Notes on connecting/disconnecting cables</td>
<td>43</td>
</tr>
<tr>
<td>5</td>
<td>Installation and operation</td>
<td>45</td>
</tr>
</tbody>
</table>
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Control and display elements</td>
<td>45</td>
</tr>
<tr>
<td>5.1.1</td>
<td>Front of server</td>
<td>45</td>
</tr>
<tr>
<td>5.1.1.1</td>
<td>Control elements</td>
<td>46</td>
</tr>
<tr>
<td>5.1.1.2</td>
<td>Indicators</td>
<td>46</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Rear of server</td>
<td>47</td>
</tr>
<tr>
<td>5.2</td>
<td>Switching the server on and off</td>
<td>49</td>
</tr>
<tr>
<td>5.3</td>
<td>Configuring the server</td>
<td>51</td>
</tr>
<tr>
<td>5.3.1</td>
<td>Configuring the onboard SATA controller</td>
<td>51</td>
</tr>
<tr>
<td>5.3.2</td>
<td>Configuring the server and installing the operating system with the ServerView Installation Manager</td>
<td>52</td>
</tr>
<tr>
<td>5.3.3</td>
<td>Configuring the server and installing the operating system without the ServerView Installation Manager</td>
<td>53</td>
</tr>
<tr>
<td>5.4</td>
<td>Cleaning the server</td>
<td>53</td>
</tr>
<tr>
<td>6</td>
<td>Property and data protection</td>
<td>55</td>
</tr>
<tr>
<td>6.1</td>
<td>BIOS Setup security functions</td>
<td>55</td>
</tr>
<tr>
<td>7</td>
<td>Troubleshooting and tips</td>
<td>57</td>
</tr>
<tr>
<td>7.1</td>
<td>Power-on indicator remains unlit</td>
<td>57</td>
</tr>
<tr>
<td>7.2</td>
<td>Server switches off itself</td>
<td>58</td>
</tr>
<tr>
<td>7.3</td>
<td>Screen remains blank</td>
<td>58</td>
</tr>
<tr>
<td>7.4</td>
<td>Flickering stripes on monitor screen</td>
<td>59</td>
</tr>
<tr>
<td>7.5</td>
<td>No screen display or display drifts</td>
<td>59</td>
</tr>
<tr>
<td>7.6</td>
<td>Incorrect date and time</td>
<td>60</td>
</tr>
<tr>
<td>7.7</td>
<td>Hard disk drive error messages at system boot</td>
<td>60</td>
</tr>
<tr>
<td>7.8</td>
<td>Added drive reported as defective</td>
<td>61</td>
</tr>
<tr>
<td>7.9</td>
<td>Error message on screen</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Index</td>
<td>63</td>
</tr>
</tbody>
</table>
Preface

The PRIMERGY TX100 S2 server is an Intel-based server for workgroups and small networks. The server is suitable for use as a file server and also as an application, information or Internet server.

Thanks to its highly developed hardware and software components, the PRIMERGY TX100 S2 server offers a high level of data security and availability.

Security functions in the BIOS-Setup and on the system board protect the data on the server against manipulation. The supported RAID levels allow the hard disk controllers to offer error tolerance, through data redundancy, for users who want to provide complete protection for valuable data.

Its low noise level and high energy efficiency make it ideal for office environments.

The PRIMERGY TX100 S2 has a power management function that reduces power consumption to <65 W in typical configurations. The server thus satisfies the requirements of the U.S. Environmental Protection Agency (EPA) - see section "ENERGY STAR" on page 31.

1.1 Concept and target groups for this manual

This operating manual describes how to install, set up and operate your server.

This operating manual is intended for those responsible for installing the hardware and ensuring that the system runs smoothly. It contains all the information you need to put your PRIMERGY TX100 S2 into operation.

To understand the various expansion options, you will need to be familiar with the fields of hardware and data transmission and you will require a basic knowledge of the underlying operating system.
1.2 Documentation overview

More information on your PRIMERGY TX100 S2 can be found in the following documents:

- "Quick Start Hardware - PRIMERGY TX100 S2" leaflet
  "はじめにお読みください - PRIMERGY TX100 S2" for the Japanese market
  (only included as a printed copy)

- "Quick Start Software - Quick Installation Guide" DVD booklet
  (only included with the ServerView Suite as a printed copy) except for the Japanese market

- "Safety notes and other important information" manual
  "安全上の注意およびその他の重要情報" for the Japanese market

- "Warranty" manual
  "保証書" for the Japanese market

- "Returning used devices" manual and "Service Desk" leaflet
  "サポート＆サービス" for the Japanese market

- "PRIMERGY TX100 S2 Server Operating Manual"

- "PRIMERGY TX100 S2 Server Options Guide"

- "System Board D2779 for PRIMERGY TX100 S2 Technical Manual"

- “D2779 BIOS Setup Utility for PRIMERGY TX100 S2 manual”

PRIMERGY manuals are available in PDF format on the ServerView Suite DVD 2. The ServerView Suite DVD 2 is part of the ServerView Suite supplied with every server.

If you no longer have the ServerView Suite DVDs, you can obtain the relevant current versions using the order number U15000-C289 (the order number for the Japanese market: please refer to the configurator of the server http://jp.fujitsu.com/platform/server/primergy/system.html).

The PDF files of the manuals can also be downloaded free of charge from the Internet. The overview page showing the online documentation available on the Internet can be found using the URL (for EMEA market): http://manuals.ts.fujitsu.com. The PRIMERGY server documentation can be accessed using the Industry standard servers navigation option.

For the Japanese market please use the URL:
Further sources of information:

- PRIMERGY Abbreviations and Glossary on the ServerView Suite DVD 2
- Manual for the monitor
- Documentation for the boards and drives
- Operating system documentation
- Information files in your operating system

1.3 Performance features

System board

The features of the system board are described in the technical manual for the system board D2779 for the hardware and in the BIOS Setup manual for the BIOS.

Slots for expansion cards

The server can be flexibly expanded via four slots:

- two PCIe Gen2 x8
- one PCIe Gen2 x4
- one PCI (32 Bit / 33 MHz; 3.3 V)

PCIe Gen2 doubles the bandwidth of currently existing PCIe busses and allows improved system performance.

Hard disk drives

Up to four SATA hard disk drives, each with a maximum height of 1 inch, are built into the drive rack. There is a wire connection to the controller.

The SATA hard disk drives are controlled by the onboard SATA RAID controller.

The optional SAS controller has to be plugged into one of the I/O slots.
Onboard SATA controller

A SATA controller is integrated on the system board; up to four SATA hard disk drives can be connected to the controller. The LSI Embedded MegaRAID software (SATA Software RAID) supports RAID levels 0, 1 and 10.

For more information on configuring the controller, see section "Configuring the onboard SATA controller" on page 51.

Optional SAS RAID controller

As an option you can order an SAS RAID controller.

Up to four SATA hard disk drives can be connected to this SAS RAID controller. The embedded LSI MegaRAID software supports RAID levels 0, 1, 10, and additional RAID levels 5 and 6 for SAS 1.0 and SAS 2.0.

Accessible drives

The first (top) bay contains the server's DVD drive.

The 5.25-inch bay below is available for one additional accessible drive (CD/DVD drives or a magnetic tape drive).

The accessible drives cannot be replaced during operation.

Cooling

The efficient cooling system prevents high temperatures and results in lower fan speed and less noise. The fans use less power.

Power supply

The server has a built-in power supply unit, which automatically sets itself to a mains voltage in the range of 100 V - 240 V.
**High level of availability and data security**

When memory data is accessed, 1-bit errors are identified in the main memory and automatically corrected with the error correcting code (ECC) method. The patented memory scrubbing function regularly starts up the EDC mechanism, ensuring continuous data integrity.

The onboard SATA controller supports different RAID levels and increases the availability and data security of the system.

**Server management**

Server management is implemented using the ServerView Operations Manager software supplied from Fujitsu Technology Solutions.

The ServerView Operations Manager enables the management of all PRIMERGY servers in the network via a central console. The ServerView Operations Manager supports the following functions:

- Wake On LAN
- Monitoring of the ambient and CPU temperatures
- Monitoring of PCI bus loading
- Detailed status and error reports for bus systems, processors and main memory

Preface

ServerView Installation Manager

You can configure the PRIMERGY server quickly and precisely with the ServerView Installation Manager software provided. User-guided menus are available for installing the server operating system (for further details see section "Configuring the server" on page 51).

Service and support

PRIMERGY servers are easy to maintain and modular, thus enabling quick and simple maintenance.

All locks and touch points used to exchange components are colored green to ensure simple and immediate recognition.

In order to prevent the components from being damaged by incorrect handling when they are being installed and removed, the areas of all components that can be touched without damaging them are also marked green.

The Flash EPROM program supplied with the Fujitsu utilities supports a fast BIOS update.
1.4 Notational conventions

The following notational conventions are used in this manual:

<table>
<thead>
<tr>
<th>Text in italics</th>
<th>indicates commands or menu items.</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Quotation marks&quot;</td>
<td>indicate names of chapters and terms that are being emphasized.</td>
</tr>
<tr>
<td>▶</td>
<td>describes activities that must be performed in the order shown.</td>
</tr>
<tr>
<td>CAUTION!</td>
<td>pay particular attention to texts marked with this symbol. Failure to observe this warning may endanger your life, destroy the system or lead to the loss of data.</td>
</tr>
<tr>
<td>i</td>
<td>indicates additional information, notes and tips.</td>
</tr>
</tbody>
</table>

1.5 Technical data

Electrical data

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage range</td>
<td>100 V - 240 V</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz - 60 Hz</td>
</tr>
<tr>
<td>Rated current with basic configuration</td>
<td>100 V - 240 V / 0.7 A - 0.3 A</td>
</tr>
<tr>
<td>Max. rated current</td>
<td>100 V - 240 V / 6.0 A - 3.0 A</td>
</tr>
<tr>
<td>AC outlet</td>
<td>100 V - 240 V / 3.0 A - 1.5 A</td>
</tr>
<tr>
<td>Effective power</td>
<td>26 W - 171 W</td>
</tr>
<tr>
<td>Apparent power</td>
<td>31 VA - 171 VA</td>
</tr>
<tr>
<td>Heat dissipation</td>
<td>94 kJ/h - 616 kJ/h (89 btu/h - 583 btu/h)</td>
</tr>
<tr>
<td>Main power fuse</td>
<td>16 A</td>
</tr>
<tr>
<td>Protection class</td>
<td>I</td>
</tr>
</tbody>
</table>
## Compliance with regulations and standards

<table>
<thead>
<tr>
<th>Product safety and ergonomics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>IEC 60950-1</td>
</tr>
<tr>
<td>Europe</td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>EN 60950-1</td>
</tr>
<tr>
<td>ergonomics</td>
<td>ISO 9241-3</td>
</tr>
<tr>
<td></td>
<td>EN 2941-3</td>
</tr>
<tr>
<td></td>
<td>EK1-ITB 2003:2007</td>
</tr>
<tr>
<td></td>
<td>UL 60950-1</td>
</tr>
<tr>
<td>USA / Canada</td>
<td>CSA-C22.2 60950-1-03</td>
</tr>
<tr>
<td>Taiwan</td>
<td>CNS 14336</td>
</tr>
<tr>
<td>China</td>
<td>GB 4943</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electromagnetic compatibility</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>CISPRA 24</td>
</tr>
<tr>
<td>Europe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EN 55022</td>
</tr>
<tr>
<td></td>
<td>EN 55024</td>
</tr>
<tr>
<td></td>
<td>EN 61000-3-2</td>
</tr>
<tr>
<td></td>
<td>EN 61000-3-3</td>
</tr>
<tr>
<td></td>
<td>ETS 300386</td>
</tr>
<tr>
<td>USA / Canada</td>
<td>47CFR part 15 Class A / ICES-003</td>
</tr>
<tr>
<td>Taiwan</td>
<td>CNS 13438 Class A</td>
</tr>
<tr>
<td>China</td>
<td>GB 9245 / GB 17625</td>
</tr>
<tr>
<td>Japan</td>
<td>VCCI Class A / Jeida</td>
</tr>
<tr>
<td>CE marking to EU directives</td>
<td>Low Voltage Directive 2006/95/EC</td>
</tr>
<tr>
<td></td>
<td>Electromagnetic compatibility 2004/108/EC</td>
</tr>
</tbody>
</table>
Mechanical specifications

<table>
<thead>
<tr>
<th>Width</th>
<th>203 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total depth</td>
<td>388 mm</td>
</tr>
<tr>
<td>Height</td>
<td>390 mm</td>
</tr>
</tbody>
</table>

Weight
Approx. 12 kg (depending on configuration).

Ventilation clearance
At least 200 mm on the front and rear side.

Ambient conditions

<table>
<thead>
<tr>
<th>Environment class</th>
<th>EN 60721 / IEC 721 Part 3-3</th>
<th>Environment class</th>
<th>EN 60721 / IEC 721 Part 3-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3K2</td>
<td></td>
<td>2K2</td>
<td></td>
</tr>
</tbody>
</table>

| Temperature:      |                             |                   |                             |
| Operation (3K2)   | 10 °C .... 35 °C             | Transport (2K2)   | -25 °C .... 60 °C           |
| Humidity          | 10% .... 85% (non condensing)|                   |                             |

Condensation during operation must be avoided!

Noise level

<table>
<thead>
<tr>
<th>Sound power level $L_{WAd}$ (ISO 9296)</th>
<th>&lt; 3.7 B (standby)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 4.0 B (operation)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sound pressure level at adjacent position $L_{pAm}$ (ISO 9296)</th>
<th>&lt; 24 dB(A) (standby)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 24 dB(A) (operation)</td>
<td></td>
</tr>
</tbody>
</table>
2 Installation steps, overview

This chapter contains an overview of the steps you need to carry out to install your server. Links take you to sections where you can find more detailed information about the respective steps:

- First of all, it is essential that you familiarize yourself with the safety information in chapter "Important notes" on page 21.

- Transport the server to the place where you want to set it up.

- Unpack the system, check the contents of the package for visible transport damage and check whether the items delivered match the details on the delivery note (see section "Unpacking the server" on page 38).

- Make sure that you have all necessary manuals (see "Documentation overview" on page 10); print out the PDF files if required.

- Components that have been ordered additionally may be delivered loose with the server. For mounting refer to the original component documentation.

- Set up the server (see section "Setting up the server" on page 39).

- Wire the server. Follow the instructions in sections "Connecting devices to the server" on page 40 and "Notes on connecting/disconnecting cables" on page 43.

- Connect the server to the mains (see section "Connecting the server to the mains" on page 42).

- Familiarize yourself with the controls and indicators on the front and rear of the server (see section "Control and display elements" on page 45).
Installation steps, overview

- Configure the server and install the desired operating system and applications. The following options are available:
  
  - Remote installation with the ServerView Installation Manager:

    With the ServerView Suite DVD 1 provided, you can configure the server and install the operating system in a convenient manner.

    Details on how to operate the ServerView Installation Manager, as well as some additional information, are included in the "ServerView Suite Installation Manager" user’s guide (on ServerView Suite DVD 2 under Industry Standard Servers - Software - ServerView Suite - Server Installation and Deployment).

    Configuration information can also be found in section "Configuring the server and installing the operating system with the ServerView Installation Manager" on page 52.

  - Local configuration and installation with or without the ServerView Installation Manager (see section "Configuring the server and installing the operating system with the ServerView Installation Manager" on page 52 or section "Configuring the server and installing the operating system without the ServerView Installation Manager" on page 53).

    You will find more information on installing the server remotely or locally in the "ServerView Suite Installation Manager" user’s guide (on the ServerView Suite DVD 2 under Industry Standard Servers - Software - ServerView Suite - Server Installation and Deployment).
3 Important notes

In this chapter you will find essential information regarding safety when working on your server.

3.1 Safety instructions

The following safety instructions are also provided in the manual "Safety Notes and Regulations".

This device meets the relevant safety regulations for IT equipment. If you have any questions about whether you can install the server in the intended environment, please contact your sales outlet or our customer service team.

CAUTION!

- The actions described in this manual must be performed by technical specialists.
- Equipment repairs must be performed by service staff. Please note that unauthorized interference with the system will void the warranty and exempt the manufacturer from all liability.
- Any failure to observe the guidelines in this manual, and any improper repairs could expose the user to risks (electric shock, energy hazards, fire hazards) or damage the equipment.
Important notes

Before starting up

CAUTION!

● During installation and before operating the device, observe the instructions on environmental conditions for your device (see section "Technical data" on page 15).

● If the server has been moved from a cold environment, condensation may form both inside and on the outside of the machine.

Wait until the server has acclimatized to room temperature and is absolutely dry before starting it up. Material damage may be caused to the server if this requirement is not met.

● Only transport the server in the original packaging or in packaging that protects it from impacts and jolts.

Installation and operation

CAUTION!

● This unit should not be operated in ambient temperatures above 35 °C.

● If the unit is integrated into an installation that draws power from an industrial power supply network with an IEC309 connector, the power supply's fuse protection must comply with the requirements for non-industrial power supply networks for type A connectors.

● The unit automatically adjusts itself to a mains voltage in a range of 100 V - 240 V. Ensure that the local mains voltage lies within these limits.

● This device must only be connected to properly grounded power outlets or insulated sockets of the rack's internal power supply with tested and approved power cables.

● Ensure that the device is connected to a grounded power outlet close to the device.
Important notes

CAUTION!

- Ensure that the power sockets on the device and the grounded power outlets are freely accessible.

- The On/Off button or the main power switch (if present) does not isolate the device from the mains power supply. To disconnect it completely from the mains power supply, unplug all network power plugs from the grounded power outlets.

- Always connect the server and the attached peripherals to the same power circuit. Otherwise you run the risk of losing data if, for example, the server is still running but a peripheral device (e.g. memory subsystem) fails during a power outage.

- Data cables must be adequately shielded.

- The EN 50173 and EN 50174-1/2 standards apply for LAN cabling. The minimum requirement is the use of a category 5 screened LAN cable for 10/100 Mbit/s Ethernet, or a category 5e cable for Gigabit Ethernet. The requirements from the ISO/IEC 11801 specification must also be met.

- Route the cables in such a way that they do not create a potential hazard (make sure no-one can trip over them) and that they cannot be damaged. When connecting the server, refer to the relevant instructions in this manual.

- Never connect or disconnect data transmission lines during a storm (risk of lightning strike).

- Make sure that no objects (e.g. jewelery, paperclips etc.) or liquids can get inside the server (risk of electric shock, short circuit).

- In emergencies (e.g. damaged casing, controls or cables, penetration of liquids or foreign bodies), switch off the server immediately, remove all power plugs and contact your sales outlet or customer service team.
Important notes

CAUTION!

- Proper operation of the system (in accordance with IEC 60950-1/EN 60950-1) is only ensured if the casing is completely assembled and the rear covers for the installation slots have been fitted (electric shock, cooling, fire protection, interference suppression).

- Only install system expansions that satisfy the requirements and rules governing safety and electromagnetic compatibility and those relating to telecommunication terminals. If you install other expansions, they may damage the system or violate the safety regulations. Information on which system expansions are approved for installation can be obtained from our customer service center or your sales outlet.

- The components marked with a warning notice (e.g. lightning symbol) may only be opened, removed or exchanged by authorized, qualified personnel. Exception: hot-pluggable power supply units can be replaced.

- The warranty is void if the server is damaged during installation or replacement of system expansions.

- Only set screen resolutions and refresh rates that are specified in the operating manual for the monitor. Otherwise, you may damage your monitor. If you are in any doubt, contact your sales outlet or customer service center.
Batteries

**CAUTION!**

- Incorrect replacement of batteries may lead to a risk of explosion. The batteries may only be replaced with identical batteries or with a type recommended by the manufacturer (see the technical manual for the system board).

- Do not throw batteries into the trash can.

- Batteries must be disposed of in accordance with local regulations concerning special waste.

- Replace the lithium battery on the system board in accordance with the instructions in the technical manual for the system board.

- All batteries containing pollutants are marked with a symbol (a crossed-out garbage can). In addition, the marking is provided with the chemical symbol of the heavy metal decisive for the classification as a pollutant:

  Cd Cadmium
  Hg Mercury
  Pb Lead
Important notes

Working with CDs/DVDs/BDs and optical drives

When working with devices with optical drives, these instructions must be followed.

**CAUTION!**

- Only use CDs/DVDs/BDs that are in perfect condition, in order to prevent data loss, equipment damage and injury.
- Check each CD/DVD/BD for damage, cracks, breakages etc. before inserting it in the drive.

Note that any additional labels applied may change the mechanical properties of a CD/DVD/BD and cause imbalance.

Damaged and imbalanced CDs/DVDs/BDs can break at high drive speeds (data loss).

Under certain circumstances, sharp CD/DVD/BD fragments can pierce the cover of the optical drive (equipment damage) and can fly out of the device (danger of injury, particularly to uncovered body parts such as the face or neck).

- High humidity and airborne dust levels are to be avoided. Electric shocks and/or server failures may be caused by liquids such as water, or metallic items, such as paper clips, entering a drive.
- Shocks and vibrations are also to be avoided.
- Do not insert any objects other than the specified CDs/DVDs/BDs.
- Do not pull on, press hard, or otherwise handle the CD/DVD/BD tray roughly.
- Do not disassemble the optical drive.
- Before use, clean the optical disk tray using a soft, dry cloth.
- As a precaution, remove disks from the optical drive when the drive is not to be used for a long time. Keep the optical disk tray closed to prevent foreign matter, such as dust, from entering the optical drive.
- Hold CDs/DVDs/BDs by their edges to avoid contact with the disk surface.
Important notes

- Do not contaminate the CD/DVD/BD surface with fingerprints, oil, dust, etc. If dirty, clean with a soft, dry cloth, wiping from the center to the edge. Do not use benzene, thinners, water, record sprays, antistatic agents, or silicone-impregnated cloth.

- Be careful not to damage the CD/DVD/BD surface.

- Keep the CDs/DVDs/BDs away from heat sources.

- Do not bend or place heavy objects on CDs/DVDs/BDs.

- Do not write with ballpoint pen or pencil on the label (printed) side.

- Do not attach stickers or similar to the label side. Doing so may cause rotational eccentricity and abnormal vibrations.

- When a CD/DVD/BD is moved from a cold place to a warm place, moisture condensation on the CD/DVD/BD surface can cause data read errors. In this case, wipe the CD/DVD/BD with a soft, dry cloth then let it air dry. Do not dry the CD/DVD/BD using devices such as a hair dryer.

- To avoid dust, damage, and deformation, keep the CD/DVD/BD in its case whenever it is not in use.

- Do not store CDs/DVDs/BDs at high temperatures. Areas exposed to prolonged direct sunlight or near heating appliances are to be avoided.

You can prevent damage from the optical drive and the CDs/DVDs/BDs, as well as premature wear of the disks, by observing the following suggestions:

- Only insert disks in the drive when needed and remove them after use.
- Store the disks in suitable sleeves.
- Protect the disks from exposure to heat and direct sunlight.

Laser information

The optical drive complies with IEC 60825-1 laser class 1.

CAUTION!

The optical drive contains a light-emitting diode (LED), which under certain circumstances produces a laser beam stronger than laser class 1. Looking directly at this beam is dangerous.

Never remove parts of the optical drive casing!
Important notes

Modules with Electrostatic-Sensitive Devices

Modules with electrostatic-sensitive devices are identified by the following sticker:

![Figure 1: ESD label](image)

When you handle components fitted with ESDs, you must always observe the following points:

- Switch off the system and remove the power plugs from the power outlets before installing or removing components with ESDs.
- You must always discharge static build-up (e.g. by touching a grounded object) before working with such components.
- Any devices or tools that are used must be free of electrostatic charge.
- Wear a suitable grounding cable that connects you to the external chassis of the system unit.
- Always hold components with ESDs at the edges or at the points marked green (touch points).
- Do not touch any connectors or conduction paths on an ESD.
- Place all the components on a pad which is free of electrostatic charge.

For a detailed description of how to handle ESD components, see the relevant European or international standards (EN 61340-5-1, ANSI/ESD S20.20).
Important notes

Other important information:

- During cleaning, observe the instructions in section "Cleaning the server" on page 53.
- Keep this operating manual and the other documentation (such as the technical manual, documentation DVD) close to the device. All documentation must be included if the equipment is passed on to a third party.

3.2 CE conformity

The system complies with the requirements of the EC directives 2004/108/EC regarding "Electromagnetic Compatibility" and 2006/95/EC "Low Voltage Directive". This is indicated by the CE marking (CE = Communauté Européenne).

3.3 FCC Class A Compliance Statement

If there is an FCC statement on the device, it applies to the products covered in this manual, unless otherwise specified herein. The statement for other products will appear in the accompanying documentation.

NOTE:

This equipment has been tested and found to comply with the limits for a "Class A" digital device, pursuant to Part 15 of the FCC rules and meets all requirements of the Canadian Interference-Causing Equipment Standard ICES-003 for digital apparatus. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in strict accordance with the instructions, may cause harmful interference to radio communications. However, there is no warranty that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and the receiver.
Important notes

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Fujitsu is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Fujitsu. The correction of interferences caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

The use of shielded I/O cables is required when connecting this equipment to any and all optional peripheral or host devices. Failure to do so may violate FCC and ICES rules.

**WARNING:**

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
3.4 ENERGY STAR

In typical configurations the PRIMERGY TX100 S2 satisfies the stringent requirements of the Ecolabel Energy Star for Computers Version 5.0. These requirements ensure energy savings when computers are being used and performing a range of tasks, as well as when they are turned off or into a low power mode. For example, the power consumption of the PRIMERGY TX100 S2 in the operation mode “idle” is less than 65 W.

Products that have been certified compliant with ENERGY STAR and identified as such are in full compliance with the specification at shipping. Note that energy consumption can be affected by software that is installed or any changes that are made to the BIOS or energy options subsequently. In such cases, the properties guaranteed by ENERGY STAR can no longer be assured.

The "ServerView Operations Manager" user guide contains instructions for reading out measurement values, including those relating to current energy consumption and air temperatures. Either the Performance Monitor or the Task Manager can be used to read out CPU utilization levels.

The system has a hibernate mode (S4 mode) from which it can be woken up via WOL (Wake-up On LAN). In order to use this feature, however, the S4 mode must be activated/enabled in the corresponding operating system installed.

The following description is an example and can only serve as a guide for other operating systems.

To bring your system into S4 mode (= hibernate mode), proceed as follows:

**BIOS Setup**

- In the **Power** menu of the BIOS setup, set the **0-Watt PC Feature** parameter to **Disabled**.

**Operating system Microsoft Windows 2008 Enterprise Edition**

**Activation**

- Open a DOS shell using `C:\Windows\System32\cmd.exe` and enter the following command to activate S4 mode:
Important notes

**powercfg -h ON**

**Configuration**

To set the driver for the internal LAN controller:

- Open the *Device Manager* via *Start - Control Panel - System - Device Manager*.
- Select *Network Adapters*.
- Select the internal LAN controller: Intel® 82578DM Gigabit Network Connection.
- Select *Properties* in the overview, and then select *Power Management*.
- In the Wake on LAN field, enable both of the following options:
  - Wake on Magic packet and
  - Wake on Magic Packet from power off state.
- Press *OK*.

**Execution**

To execute the power down command in a DOS shell:

Using the `shutdown /h` command, your system saves all user data (e.g: open windows and running programs), shuts down the system, and transfers it to S4 mode.

**Exiting the hibernate/idle state (S4 mode)**

You switch on the system again either manually using the On/Off button or using the WOL function (WOL= Wake-up On LAN).

To do this, a Magic Packet with the MAC address of the system to be woken up is sent to the internal LAN controller.

You will find the valid MAC address for your device under:


**LINUX operating systems**

**Activation**
Important notes

To activate S4 mode, enter the following command:

\texttt{resume=/dev/sdxx}

Using this command, the memory area in which the data is saved is assigned at the same time.

Execution

Using the following command, the system is switched off and brought into S4 mode:

\texttt{echo -n "disk" > /sys/power/state}

Exiting the hibernate/idle state (S4 mode)

You switch on the system again either manually using the On/Off button or using the WOL function (WOL= Wake-up On LAN).

To do this, a Magic Packet with the MAC address of the system to be woken up is sent to the internal LAN controller.

3.5 Transporting the server

\textbf{CAUTION!}

Only transport the server in its original packaging or in packaging that protects it from impacts and jolts. Do not unpack the server until it is at its installation location.

If you need to lift or transport the server, ask other people to help you.
3.6 Environmental protection

Environmentally-friendly product design and development

This product has been designed in accordance with the Fujitsu standard for "environmentally friendly product design and development". This means that key factors such as durability, selection and labeling of materials, emissions, packaging, ease of dismantling and recycling have been taken into account.

This saves resources and thus reduces the harm done to the environment. Further information can be found at:


Energy-saving information

Devices that do not need to be constantly switched on should be switched off until they are needed as well as during long breaks and after completion of work.

Packaging information

This packaging information doesn’t apply to the Japanese market.

Do not throw away the packaging. You may need it later for transporting the system. If possible, the equipment should only be transported in its original packaging.

Information on handling consumables

Please dispose of printer consumables and batteries in accordance with the applicable national regulations.

In accordance with EU directives, batteries must not be disposed of with unsorted domestic waste. They can be returned free of charge to the manufacturer, dealer or an authorized agent for recycling or disposal.
Important notes

All batteries containing pollutants are marked with a symbol (a crossed-out garbage can). They are also marked with the chemical symbol for the heavy metal that causes them to be categorized as containing pollutants:

Cd Cadmium
Hg Mercury
Pb Lead

Labels on plastic casing parts

Please avoid sticking your own labels on plastic parts wherever possible, since this makes it difficult to recycle them.

Returns, recycling and disposal

Please handle returns, recycling and disposal in accordance with local regulations.

The device must not be disposed of with domestic waste. This device is labeled in compliance with European directive 2002/96/EC on waste electrical and electronic equipment (WEEE).

This directive sets the framework for returning and recycling used equipment and is valid across the EU. When returning your used device, please use the return and collection systems available to you. Further information can be found at http://ts.fujitsu.com/recycling.

Details regarding the return and recycling of devices and consumables within Europe can also be found in the "Returning used devices" manual, via your local Fujitsu branch or from our recycling center in Paderborn:

Fujitsu Technology Solutions
Recycling Center
D-33106 Paderborn
Tel. +49 5251 8 18010
Fax +49 5251 8 333 18010
4 Installing the hardware

CAUTION!

- Follow the safety instructions in the chapter "Important notes" on page 21.
- Do not expose the server to extreme environmental conditions (see "Ambient conditions" on page 17). Protect the server from dust, humidity and heat.
- Make sure that the server is acclimatized for the time indicated in this table before putting it into operation.

<table>
<thead>
<tr>
<th>Temperature difference (°C)</th>
<th>Minimum acclimatization time (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>25</td>
<td>9</td>
</tr>
<tr>
<td>30</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 1: Acclimatization time

In the table "Acclimatization time", the temperature difference refers to the difference between the operating environment temperature and the temperature to which the server was exposed previously (outside, transport or storage temperature).
Installing the hardware

4.1 Unpacking the server

⚠️ CAUTION!

Follow the safety instructions in chapter "Important notes" on page 21.

The server must always be lifted or carried by at least two people.
(For the Japanese market, please refer to "安全上の注意およびその他の重要情報".)

Do not unpack the server until it is at its installation location.

- Transport the server to the place where you want to set it up.
- Unpack all individual parts.
  
  Keep the original packaging in case you want to transport the server again (applies only to EMEA market).
- Check the delivery for any damage during transport.
- Check whether the items delivered match the details on the delivery note.
- Notify your supplier immediately should you discover that the items delivered do not correspond to the delivery note.
4.2 Setting up the server

CAUTION!
Follow the safety instructions in chapter "Important notes" on page 21.

► Set up the server.

CAUTION!

– The device must be protected from direct sunlight.
– Ensure that the minimum clearances (see "Ventilation clearance" on page 17) are observed.
– Access to the rear of the server must be assured so that other devices (e.g. memory subsystems) can be connected.
– The mains plug must be accessible easily and safely.
– A clearance of at least 200 mm must be maintained in front of and behind the system to ensure proper ventilation.

► Wire the server. Read the information in section "Connecting devices to the server" on page 40 and section "Notes on connecting/disconnecting cables" on page 43.

► Connect the system to the mains (see section "Connecting the server to the mains" on page 42).
Installing the hardware

4.3 Connecting devices to the server

Most of the ports for external devices are on the rear of the server. The additional ports available on your server depend on the expansion cards installed. The standard ports (figure 2) are marked with symbols, and some are color-coded.

Figure 2: Connection panel on the rear

<table>
<thead>
<tr>
<th></th>
<th>1 Serial port COM1</th>
<th>3 6 x USB port</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 Monitor port (VGA)</td>
<td>4 LAN port 1</td>
</tr>
</tbody>
</table>
Installing the hardware

The corresponding indicators are explained in section "Rear of server" on page 47.

Some of the devices connected require special software (e.g. drivers) (see documentation for the connected device).

Connect the devices.

Two additional USB ports are located on the front of the server (see figure 4 on page 45).

If components with large power requirements (e.g. external USB hard disk drives) are connected simultaneously, these USB connectors may be switched off.

Connecting the keyboard, mouse and monitor

Connect the monitor, the keyboard and the mouse to the standard ports of the server (see figure 2 on page 40).

Connect the power cable of the monitor to a grounded power outlet of the in-house mains and/or to the mains socket strip of the rack.

CAUTION!

The rated current for the monitor is indicated on the technical data label on the monitor or in the operating manual for the monitor.
4.4 Connecting the server to the mains

The server is fitted with a built-in power supply.

**CAUTION!**

The power supply unit automatically adapts to a mains voltage between 100 V - 240 V. Make sure that your local mains voltage is within the range.

![Figure 3: Connecting the server to the mains](image)

- Connect the insulated connector of the power cable to the power supply unit of the server (1).
- Insert the mains plug into an grounded power outlet (2) in the internal supply network.
4.5 Notes on connecting/disconnecting cables

**CAUTION!**

Always read the documentation supplied with the device you wish to connect.

Never connect, or disconnect cables during a thunderstorm.

Never pull on a cable when disconnecting it. Always take hold of the cable by the plug.

Follow the sequence described below to connect or disconnect external devices to or from the server:

Be sure to wait for 10 seconds or more after shutdown before turning the server on.

**Connecting cables**

- Turn off all power and equipment switches.
- Disconnect all power plugs from the properly grounded power outlets.
- Connect all cables to the server and peripherals.
- Plug all data communication cables into the utility sockets.
- Plug all power cords into the properly grounded power outlets.

**Disconnecting cables**

- Turn off all power and equipment switches.
- Disconnect all power plugs from the properly grounded power outlets.
- Unplug all data communication cables from the utility sockets.
- Disconnect the relevant cables from the server and all the peripherals.

For connecting or disconnecting LAN cables, the server need not to be powered off. To avoid loss of data teaming function has to be enabled.
5  Installation and operation

**CAUTION!**
Follow the safety instructions in chapter "Important notes" on page 21.

5.1  Control and display elements

5.1.1  Front of server

![Figure 4: Front of server](image)

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DVD drive activity indicator</td>
</tr>
<tr>
<td>2</td>
<td>DVD eject button</td>
</tr>
<tr>
<td>3</td>
<td>hard disk activity indicator</td>
</tr>
<tr>
<td>4</td>
<td>power-on indicator / On/Off button</td>
</tr>
<tr>
<td>5</td>
<td>2 x USB port</td>
</tr>
</tbody>
</table>

Figure 4: Front of server
Installation and operation

5.1.1.1 Control elements

On/Off button

When the system is switched off, it can be switched on again by pressing the On/Off button.

When the system is operating, pressing the On/Off button will switch off the system.

The On/Off button does not disconnect the server from the mains voltage. To disconnect from the mains completely, remove the power plug(s).

DVD eject button When the DVD drive button is pressed, the DVD drive opens or closes.

5.1.1.2 Indicators

Power indicator

Glows green when the server is switched on.

Hard disk activity indicator (green)

Lights up green when an internal drive (HDD or backup drive) is being accessed.

DVD drive activity indicator (green)

Lights up green when the storage medium is being accessed.
5.1.2 Rear of server

Push button mains switch

Figure 5: Push button mains switch (1)

A 0-Watt device consumes no current in two cases:

– It is switched off.

– It is in quiescent state.

The 0-Watt device is equipped with a push button mains switch which can be used if the 0-Watt device can no longer be started, for instance because the lithium battery is discharged.

After the push button mains switch has been pressed for a short time, the server can be switched on again using the On/Off button at the front of the server.
### Installation and operation

#### LED indicators on the LAN connection

<table>
<thead>
<tr>
<th></th>
<th>1. LAN line speed (orange/green)</th>
<th></th>
<th>2. LAN connection indicator (green)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Off = 10 Mbit/s (or no connection, if LED 1 is also off).</td>
<td></td>
<td>Lights up when a LAN connection is established.</td>
</tr>
<tr>
<td></td>
<td>Green = 100 Mbit/s. Orange = 1000 Mbit/s.</td>
<td></td>
<td>Flashes when data is being sent or received.</td>
</tr>
</tbody>
</table>
5.2 Switching the server on and off

CAUTION!

If nothing appears on the screen but flickering stripes after switching on the server, switch the server off immediately (see chapter "Troubleshooting and tips" on page 57).

The master switch and the On/Off button do not disconnect the server from the mains voltage. To completely disconnect it from the mains voltage, remove the power plug from the socket.

Switching the server on

The power-on indicator (item 4 in figure 4 on page 45) is off (standby mode) if the server is connected to the mains.

- Starting up for the first time:
  - Press the On/Off button (item 4 in figure 4 on page 45).
  - Insert ServerView Suite DVD 1 in the DVD drive.
  - Follow the on-screen instructions (see also section "Configuring the server and installing the operating system with the ServerView Installation Manager" on page 52 or section "Configuring the server and installing the operating system without the ServerView Installation Manager" on page 53).

- Operating System already installed:
  - Press the On/Off button (item 4 in figure 4 on page 45).

    The server is switched on, performs a hardware self-test and boots the operating system.

    In the case of configurations with a large memory size, the boot process may be prolonged and the screen may remain dark for about 20 seconds.
Installation and operation

Switching the server off

The Power-on indicator (item 4 in figure 4 on page 45) lights up green.

- Shut down the operating system properly.

The server is switched off automatically.

If the operating system does not switch off the server automatically, press the On/Off button for at least four seconds and/or send a control signal for power button override.

Other On/Off options

Besides the On/Off button, the server can be switched ON and OFF in the following ways:

- **Timer-controlled switch-on/off**
  
  Using the ServerView Operations Manager, you can configure that the server is switched on/off controlled by the internal timer.

- **Ring indicator (from modem)**
  
  The server is switched on by an internal or external modem.

- **Wake up On LAN (WOL)**
  
  The server is switched on by a command via the LAN (Magic Packet™).

- **After power failure**
  
  The server automatically reboots following a power failure (depending on the settings in the BIOS).

- **Power button override**
  
  The system can be switched off by pressing and holding down the On/Off button (for approximately 4 - 5 seconds). The system remains in Off state.

**CAUTION!**

There is a risk that data may be lost.
5.3 Configuring the server

This section contains information about configuring the server and installing the operating system.

5.3.1 Configuring the onboard SATA controller

A SATA controller is integrated on the system board. You can configure the onboard SATA controller either before or during installation with the ServerView Installation Manager. Using the ServerView Installation Manager is recommended.

The controller has its own configuration utility. For further information, refer to the “Embedded MegaRAID Software User’s Guide” (on the ServerView Suite DVD 2 under Industry Standard Servers - Expansion Cards - Storage Adapters - LSI RAID / SCSI Controllers).

Descriptions of operating systems not covered in the controller manual are provided in the corresponding readme files on the driver CDs.
5.3.2 Configuring the server and installing the operating system with the ServerView Installation Manager

Using the ServerView Installation Manager on the ServerView Suite DVD 1 provided, you can conveniently configure the server and install the operating system. This includes configuring the server-specific settings using the ServerView Configuration Manager and configuring the RAID controller using the ServerView RAID Manager.

Advantages of the ServerView Installation Manager

- Wizard assisted configuration of your server hardware and disk arrays
- Wizard assisted installation of all leading server operating systems
- Wizard-assisted creation of configuration files for unattended installation of several PRIMERGY servers with identical hardware configurations.
- Installation of drivers and additional software.

The software that can be installed depends on your server’s hardware configuration. This configuration is detected automatically.

Descriptions of operating systems not covered in the RAID controller manual are provided in the corresponding readme files on the driver CDs.

To find out how to operate the ServerView Installation Manager and for further information, refer to the associated manual.

If you are using the ServerView Installation Manager, you can skip the following section on how to configure the server and install the operating system. Continue from section "Cleaning the server" on page 53.
5.3.3 Configuring the server and installing the operating system without the ServerView Installation Manager

Configuring the onboard SATA controller

Configure the controller as described in section "Configuring the onboard SATA controller" on page 51.

Installing the operating system

- Insert the CD/DVD for the operating system you want to install.
- Reboot the server.
- Follow the instructions on screen and in the manual for the operating system.

5.4 Cleaning the server

CAUTION!

Switch the server off and disconnect the power plugs from the properly grounded power outlets.

Do not clean any interior parts yourself; leave this job to a service technician.

Do not use any cleaning agents that contain abrasives or may corrode plastic.

Ensure that no liquid enters the system. Ensure that the ventilation areas of the server and the monitor are clear.

Do not use any cleaning sprays (including flammable types). It may cause a device failure or a fire.

Clean the keyboard and the mouse with a disinfecting cloth.

Wipe the server and monitor casing with a dry cloth. If particularly dirty, use a cloth that has been moistened in a mild domestic detergent and then carefully wrung out.
6 Property and data protection

To prevent it being removed from its location, the server can be secured to a fixed object with a steel cable (or lock) running through a recess on the back (or side cover).

To protect the system and data internally against unauthorized access, you can activate the security functions of the BIOS Setup.

6.1 BIOS Setup security functions

The Security menu in BIOS Setup offers various options for protecting your data from unauthorized access. By combining these options, you can also achieve optimum protection for your system.

A detailed description of the Security menu and how to assign passwords can be found in the BIOS Setup documentation on the ServerView Suite DVD 2.
7 Troubleshooting and tips

CAUTION!
Follow the safety instructions in the "Safety notes and other important information" manual and in chapter "Important notes" on page 21.

If a fault occurs, attempt to resolve it using the measures described:

– in this chapter,
– in the documentation for the connected devices,
– in the help systems of the software used.

If you fail to correct the problem, proceed as follows:

➤ Make a list of the steps performed and the circumstances that led to the fault. Also make a list of any error messages that were displayed.

➤ Switch off the server.

➤ Contact our customer service team.

7.1 Power-on indicator remains unlit

The power-on indicator remains dark after you switch on your device.

Power cable incorrectly connected

➤ Make sure that the power cable(s) is/are correctly connected to the server and the grounded power outlet(s).

Power supply overloaded

➤ Disconnect the server power plug(s) from the grounded power outlet(s).

➤ Wait a few seconds before you plug it/them into the grounded power outlet(s) again.

➤ Switch on your server.

Lithium battery on system board is discharged

➤ Connect the power supply of your server to the mains.
Troubleshooting and tips

- Press the push button mains switch (see figure 5 on page 47 in chapter "Rear of server" on page 47.
- Switch on your server with the power On/Off button at the front bezel.

7.2 **Server switches off itself**

**Server Management has detected an error**

- Check the error list in the System Event Log in ServerView Operations Manager, and attempt to eliminate the error.

7.3 **Screen remains blank**

**Monitor is switched off**

- Switch on your monitor.

**Screen has gone blank**

- Press any key on the keyboard.
  
  or

- Deactivate the screen saver. Enter the appropriate password.

**Brightness control is set to dark**

- Set the brightness control on the monitor to light. For detailed information, refer to the operating manual supplied with your monitor.

**Power cable or monitor cable not connected**

- Switch off the monitor and the server.

- Check whether the power cable is properly connected to the monitor and to the grounded power outlet.

- Check whether the monitor cable is properly connected to the server and monitor (if it is plugged in with a connector). If a separate graphics card is installed in the server, then the monitor cable must be connected to the graphics card.
Troubleshooting and tips

- Switch on the monitor and the server.

**Power On Self Test (POST)**

- Press the On/Off button (item 4 in figure 5 on page 47).

  The server is switched on, and performs a memory self-test.

  ![Information icon]

  In the case of configurations with a large memory size, the boot process may be prolonged and the screen may remain dark for about 30 seconds.

**7.4 Flickering stripes on monitor screen**

**CAUTION!**

Switch off the server immediately. Risk of damaging the server.

**Monitor does not support the set horizontal frequency**

- Find out which horizontal frequency your monitor screen supports. You will find the horizontal frequency (also known as line frequency or horizontal deflection frequency) in the documentation for your monitor.

- Refer to the documentation for your operating system or the software for the screen controller for details of how to set the correct horizontal frequency for your monitor, and follow the procedure accordingly.

**7.5 No screen display or display drifts**

**The wrong horizontal frequency or resolution has been selected for the monitor or for the application program.**

- Find out which horizontal frequency your monitor screen supports. You will find the horizontal frequency (also known as line frequency or horizontal deflection frequency) in the documentation for your monitor.

- Refer to the documentation for your operating system or the software for the screen controller for details of how to set the correct horizontal frequency for your monitor, and follow the procedure accordingly.
7.6 Incorrect date and time

- Set the date and time in the operating system or in the BIOS Setup under the Main menu, using System Date and System Time respectively.

Note that the operating system may affect the system time. For example, the operating system time may deviate from the system time under Linux, and would overwrite the system time in the default setting on shutdown.

If the date and time are still wrong after the server has been switched off and back on again, replace the lithium battery (for a description refer to the Technical Manual for the D2779 system board) or contact our customer service team.

7.7 Hard disk drive error messages at system boot

Various hard disk drive error messages may occur when the system is rebooted. These error messages are caused by modifications in the selected RAID configuration.

RAID controller configuration incorrect

- Check and correct the settings for the drives using the RAID controller configuration program.

For more information on configuring the controller, see section "Configuring the onboard SATA controller" on page 51.
7.8  Added drive reported as defective

RAID controller is not configured for this drive

►  Reconfigure the RAID controller for the drive using the corresponding utility. For further information, refer to the "Embedded MegaRAID Software User's Guide" (on the ServerView Suite DVD 2 under Industry Standard Servers - Expansion Cards - Storage Adapters - LSI RAID / SCSI Controllers).

If the hard disk drive continues to be shown as defective, then replace it (see the "PRIMERGY TX100 S2 Options Guide").

7.9  Error message on screen

The meaning of the error message is explained in the documentation for the relevant components and programs on the ServerView Suite DVD 2.
Index

0-Watt device 47

A
accessible drives 12
acclimatization time 37
ambient conditions 17
ASR&R 13
availability 13

B
batteries 25
BIOS
  security functions 55
BIOS update 14
button
  DVD eject button 45

C
cables
  connecting 43
  disconnecting 43
CE marking 16, 29
Class A Compliance Statement 29
cleaning
  keyboard 53
  monitor 53
  mouse 53
  server 53
Components, hardware/software 9
configuration
  server 51
connecting cables 43
consumables 34
control panel 45
cooling, fans 12
correcting faults 57
CPU, fans 12

D
data manipulation 9
data protection 55
data security 13
date, incorrect 60
delivery note 19
devices, connecting to server 40
diagnostic LEDs 14
disconnecting cables 43
disposal, devices 35
Drive
  “dead” 60
  drive defective 61
  DVD drive activity indicator 45
  DVD drive, indicator 46

E
ECC 13
EDC 13
electrical data 15
electromagnetic compatibility 16, 29
electrostatic-sensitive devices (ESD) 28
EMC directive 16
ENERGY STAR 9, 31
environment class 17
environmental protection 34
Error
  drive “dead” 60
  error
    drifting display on monitor 59
    drive defective 61
    incorrect date 60
    incorrect time 60
    no display on monitor 59
    power-on indicator does not light 57
    screen remains blank 58
    screen shows flickering stripes 59
    server switches itself off 58
Index

Error Correcting Code 13
Error Detection Code 13
error message on screen 61
expansion card 11

F
fans
  CPU 12
  power supply unit 12
  system 12
fault
drifting display on monitor 59
  drive defective 61
  incorrect date 60
  incorrect time 60
  no display on monitor 59
  screen remains blank 58
  screen shows flickering stripes 59
FCC statement 29

G
graphics card 41

H
hard disk activity indicator 45, 46
hard disk drive 11
hot-plug power supply unit 12, 42

I
Indicators
  LAN 48
indicators
  DVD drive 46
  DVD drive activity 45
  hard disk activity 45, 46
  on server 45
  operation 45
information, additional 11
Installing the operating system 53

L
labels 35
LAN port 40
laser information 27
light emitting diode (LED) 27
lithium battery 25
Low Voltage Directive 16, 29

M
mains connection 42
mains voltage 42
mains voltage, connecting server 42
meaning of the symbols 15
memory scrubbing 13
monitor
display drifts 59
no display 59
Monitor port (VGA) 40

N
noise level 17
notational conventions 15

O
On/Off button 45, 46, 47
onboard SATA controller 12, 51
operation 45
overload 13

P
packaging 34, 38
PCIe Gen2 slot 11
PDA 13
Performance features 11
ports 40, 45
power on indicator 46
power supply 42
  0-Watt device 47
power supply unit 12
  fans 12
  redundant 42
power supply, redundant 42
power-on indicator 45
does not light 57
property protection 55
push button mains switch 47
Index

R
RAID controller is not configured for this drive 61
RAID level 13
recycling devices 35
redundancy, fans 12
regulations and standards 16
return of devices 35

S
Safety instructions 21
safety standards 16
SAS controller 12
saving energy 34
screen
  error message 61
  flickering 59
  remains blank 58
  shows flickering stripes 59
security function 9
Serial port COM1 40
Server
  LAN indicator 48
server
  configuration 14
  configuring 51
  connecting external devices 40
  connecting mains voltage 42
  connecting to the mains 42
  control panel 45
  correcting faults 57
  data protection 55
dimensions 17
electrical data 15
indicators 45
operation 45
ports 40
power on indicator 46
property protection 55
startup 45
switches itself off (error) 58
switching off 49

switching on 49
technical data 15
troubleshooting 57
ventilation clearance 17
weight 17
Server management 13
ServerView Installation Manager 14, 52
ServerView Operations Manager 13
supported functions 13
service 14
touch points 14
setting up, server 39
Single Device Data Correction (SDDC) 13
slot, expansion card 11
startup
  server 45
support 14
switch off time, defining 50
switch on time, defining 50
switching off, server 49
switching on, server 47, 49
system board, features 11
system fans 12
system fans, redundant 12

T
target group 9
technical data 15
  ambient conditions 17
  noise level 17
time, incorrect 60
tips 57
touch points 14
transport damage 19, 38
transportation 33
troubleshooting 57
troubleshooting, server 57

U
unpacking 38
USB port 40, 45
Index

V
ventilation clearance  17

W
weight  17