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Preface

This document provides a detailed guide to unpacking, installing and setting up the Sun Fire V250 server.
Using UNIX Commands

This document does not contain information on basic UNIX® commands and procedures such as shutting down the system, booting the system, and configuring devices.

See one or more of the following for this information:

- *Solaris Handbook for Sun Peripherals*
- Other software documentation that you received with your system

Typographic Conventions

<table>
<thead>
<tr>
<th>Typeface</th>
<th>Meaning</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>AaBbCc123</td>
<td>The names of commands, files, and directories; on-screen computer output</td>
<td>Edit your .login file. Use <code>ls -a</code> to list all files. <code>% You have mail.</code></td>
</tr>
<tr>
<td>AaBbCc123</td>
<td>What you type, when contrasted with on-screen computer output</td>
<td><code>% su</code> Password:</td>
</tr>
<tr>
<td>AaBbCc123</td>
<td>Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.</td>
<td>Read Chapter 6 in the <em>User’s Guide</em>. These are called <em>class</em> options. You <em>must</em> be superuser to do this. To delete a file, type <code>rm filename</code>.</td>
</tr>
</tbody>
</table>
Shell Prompts

<table>
<thead>
<tr>
<th>Shell</th>
<th>Prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>C shell</td>
<td>machine-name%</td>
</tr>
<tr>
<td>C shell superuser</td>
<td>machine-name#</td>
</tr>
<tr>
<td>Bourne shell and Korn shell</td>
<td>$</td>
</tr>
<tr>
<td>Bourne shell and Korn shell superuser</td>
<td>#</td>
</tr>
<tr>
<td>ALOM shell</td>
<td>sc&gt;</td>
</tr>
<tr>
<td>OpenBoot PROM shell</td>
<td>ok</td>
</tr>
</tbody>
</table>

Related Documentation

<table>
<thead>
<tr>
<th>Application</th>
<th>Title</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latest information</td>
<td>Sun Fire V250 Server Product Notes</td>
<td>817-1003-xx</td>
</tr>
<tr>
<td>Unpacking</td>
<td>Sun Fire V250 Server Quick Start Guide</td>
<td>817-0898-xx</td>
</tr>
<tr>
<td>Administration</td>
<td>Sun Fire V250 Server Administration Guide</td>
<td>817-0900-xx</td>
</tr>
<tr>
<td>Compliance and Safety</td>
<td>Sun Fire V250 Server Compliance and Safety Manual</td>
<td>817-1959-xx</td>
</tr>
<tr>
<td>Lights Out Management</td>
<td>ALOM Online Help</td>
<td>817-3175-xx</td>
</tr>
<tr>
<td>Latest information</td>
<td>Sun Fire V250 Server Product Notes</td>
<td>817-1003-xx</td>
</tr>
</tbody>
</table>

Read the *Sun Fire V250 Server Compliance and Safety Manual* before performing any of the procedures documented in this manual.
Accessing Sun Documentation Online

You can view, print, or purchase a broad selection of Sun documentation, including localized versions, at:

http://www.sun.com/documentation/

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docfeedback@sun.com

Please include the part number of the document in the subject line of your email.
CHAPTER 1

Introduction

This chapter describes the Sun Fire V250 server and provides an overview of the installation process. It contains the following sections:

- “Unpacking the Server” on page 2
- “Lifting the Server” on page 2
- “Overview of the Sun Fire V250 Server” on page 3
- “Advanced Lights Out Manager” on page 7
- “Installation Overview” on page 8
- “Using the Sun Fire V250 Server Documentation CD” on page 8
Unpacking the Server

The server is supplied with the components listed in TABLE 1-1.

Make sure that all the parts are present in the ship kit. If any are missing, contact your Sun sales representative.

TABLE 1-1  Sun Fire V250 Server Ship Kit Contents

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antistatic wrist strap</td>
<td>1</td>
<td>250-1691-xx</td>
</tr>
<tr>
<td>RJ-45 to DB-25 adapter</td>
<td>1</td>
<td>530-2889-xx</td>
</tr>
<tr>
<td>RJ-45 to DB-9 adapter</td>
<td>1</td>
<td>530-3100-xx</td>
</tr>
<tr>
<td>RJ-45 cable, Cat 5</td>
<td>2</td>
<td>530-2961-xx</td>
</tr>
<tr>
<td>Key</td>
<td>2</td>
<td>240-4341-xx</td>
</tr>
<tr>
<td>Sun Fire V250 Server Quick Start</td>
<td>1</td>
<td>817-0898-xx</td>
</tr>
<tr>
<td>Sun Fire V250 Server Installation</td>
<td>1</td>
<td>817-0899-xx</td>
</tr>
<tr>
<td>Sun Fire V250 Server Documentation</td>
<td>1</td>
<td>705-0495-xx</td>
</tr>
<tr>
<td>Sun Fire V250 Server Compliance and</td>
<td>1</td>
<td>817-1959-xx</td>
</tr>
<tr>
<td>Safety Manual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sun Fire V250 Server Product Notes</td>
<td>1</td>
<td>817-1003-xx</td>
</tr>
</tbody>
</table>

Lifting the Server

Close the door before you lift the server. The server should be lifted by two people, using the top part of the door at the front and the PSU handles at the back as gripping points.
Overview of the Sun Fire V250 Server

The Sun Fire V250 server is a one- or two-processor server. It is optimised for deployment in an office environment, being housed in a vertical casing to minimise the amount of floorspace it occupies.

Server Features

The Sun Fire V250 server has the features listed below.
- One or two UltraSPARC™ IIIi processor(s)
- Sun™ Advanced Lights Out Manager software
- Four DDR DIMM slots per processor
- One 10/100/1000 BASE-T autonegotiating Ethernet port
- One Ultra160 SCSI multimode port
- One RJ-45 serial port for server management
- One 10BASE-T Ethernet port for server management
- One DB-9 general purpose serial port
- Four USB ports
- Six PCI expansion ports
- DVD-ROM drive
- Up to eight SCSI hard disk drives
- System configuration card
- Capacity for dual redundant power supplies

Front Panel Overview

You access the front panel features by unlocking and opening the door of the server. The door key supplied in the shipkit.

See FIGURE 1-2 for the location of each front panel component.
FIGURE 1-2 Front Panel Features

- DVD-ROM drive
- Tape drive (optional)
- System configuration card
- On/Standby button
- Operation mode switch
- Front fans
- Hard disk drives
- Antistatic grounding point
- Door
Back Panel Overview

FIGURE 1-3  Back Panel Features
Advanced Lights Out Manager

The Sun Fire V250 server is shipped with Sun™ Advanced Lights Out Manager (ALOM) software installed. By default, console output is directed to SER MGT. On startup, ALOM boot information is displayed and the user is automatically logged in as user admin.

ALOM enables you to monitor and control your server over either a serial connection (using the SERIAL MGT port), or Ethernet connection (using the NET MGT port). For information on configuring an Ethernet connection, refer to the ALOM Online Help which is contained on the Sun Fire V250 Server Documentation CD.

**Note** – The ALOM serial port, labeled SERIAL MGT, is for server management only. If you need a general purpose serial port, use the serial port labeled 10101.

ALOM can be configured to send email notification of hardware failures and other events related to the server or to ALOM. For more details, refer to the ALOM Online Help.

The ALOM circuitry uses standby power from the server. This means that:

- ALOM is active as soon as the server is connected to a power source, and until power is removed by unplugging the power cable(s).
- ALOM firmware and software continue to be effective when the server operating system goes offline.

See TABLE 1-2 for a list of the components monitored by ALOM and the information it provides for each.

<table>
<thead>
<tr>
<th>Component</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard disk drives</td>
<td>Presence and status</td>
</tr>
<tr>
<td>System and CPU fans</td>
<td>Speed and status</td>
</tr>
<tr>
<td>CPUs</td>
<td>Presence, temperature and any thermal warning or failure conditions</td>
</tr>
<tr>
<td>Power supplies</td>
<td>Presence and status</td>
</tr>
<tr>
<td>System temperature</td>
<td>Ambient temperature and any thermal warning or failure conditions</td>
</tr>
<tr>
<td>Server front panel</td>
<td>Operation mode switch position and LED status</td>
</tr>
</tbody>
</table>
Installation Overview

Each step in this procedure refers you to the relevant section of the documentation for more information. Complete each step in the order listed.

1. **Verify that you have received all the components that should ship with your system.**
   - See TABLE 1-1.

2. **Set up a terminal or a console for installing your server.**
   You can either establish a **tip** connection from another server or use an ASCII terminal connected to the SERIAL MGT.
   - See “Setting Up a Console Connection to the Server” on page 22.

3. **Power on and configure the server.**
   The Solaris operating environment is preinstalled on the server. When you power on, you will automatically be taken through the Solaris operating environment configuration procedure.

4. **Load additional software from the Solaris media kit (optional).**
   The Solaris media kit (sold separately) includes several CDs containing software to help you operate, configure, and administer your server. See the documentation provided with the Solaris media kit for a complete listing of included software and detailed installation instructions.

5. **Load online documentation from the Sun Fire V250 Documentation CD.**
   - See the installation instructions that accompany the CD in the Sun Fire V250 documentation set or “Using the Sun Fire V250 Server Documentation CD” on page 8 of this document.

---

Using the Sun Fire V250 Server Documentation CD

The following documents are shipped in hardcopy:

- **Sun Fire V250 Server Quick Start Guide**
- **Sun Fire V250 Server Installation Guide**
- **Sun Fire V250 Server Compliance and Safety Manual**
The following documents are shipped in PDF format on the documentation CD:

- **Sun Fire V250 Server Product Notes**
- **Sun Fire V250 Server Administration Guide**
- **Advanced Lights Out Manager Online Help**

▼ **To Use the Documentation CD**

1. Load the documentation CD into the CD tray.
2. Navigate to the CD directory.
3. Open the file named `HOME.PDF`.

   The page that opens is an interface to the Sun Fire V250 server documentation in PDF format. From this page you can select the documents you want to view or print, and search the platform documentation set.
CHAPTER 2

Installing the Hardware

This chapter describes how to install the server and attach the cables. It includes the following sections:

- “Connecting the Cables” on page 12
- “Physical Specifications” on page 16
- “Environmental Requirements” on page 16
- “Acoustic Noise Generated” on page 19
Connecting the Cables

I/O ports are on the back panel of the server, and arranged as shown in FIGURE 2-1.

FIGURE 2-1  Sun Fire V250 I/O Ports
Power

**Caution** – The socket-outlet (receptacle) must be installed near the equipment and be easily accessible.

The Sun Fire V250 has a single AC inlet, or dual AC inlets if redundant power supplies are installed. The AC inlets are on the rear of each power supply unit. The operating ranges are given in TABLE 2-1. While the server is connected to a power source, the server is in Standby power mode. The only way to turn server power fully off is to remove the server from the power source by disconnecting the power cable.

**TABLE 2-1**  Power Supply Unit Inlet Operating Range

<table>
<thead>
<tr>
<th>Input Parameter</th>
<th>AC Inlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC input voltage</td>
<td>90V to 264V (power systems with nominal voltages of 100V to 240V)</td>
</tr>
<tr>
<td>AC input frequency</td>
<td>47 Hz to 63 Hz (power systems with nominal frequencies of 50 Hz or 60 Hz)</td>
</tr>
</tbody>
</table>

**Ethernet Ports**

The Sun Fire V250 server has one autonegotiating 10/100/1000BASE-T Ethernet system domain interface, the transfer rates for which are given in TABLE 2-2. The port uses a standard RJ-45 connector.

**TABLE 2-2**  Ethernet Connection Transfer Rates

<table>
<thead>
<tr>
<th>Connection Type</th>
<th>IEEE Terminology</th>
<th>Transfer Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>10BASE-T</td>
<td>10 Mbit/s</td>
</tr>
<tr>
<td>Fast Ethernet</td>
<td>100BASE-T</td>
<td>100 Mbits/s</td>
</tr>
<tr>
<td>Gigabit Ethernet</td>
<td>1000BASE-T</td>
<td>1000 Mbit/s</td>
</tr>
</tbody>
</table>

In addition, the server has one 10BASE-T Ethernet management domain interface, labeled NET MGT, which is reserved for server management. For information about configuring this port for use with ALOM, see the ALOM Online Help which is included on the Sun Fire V250 Server Documentation CD.
Serial Ports

The server has two serial ports, which are labeled SERIAL MGT and 10101.

- SERIAL MGT port uses an RJ-45 connector. Use this port only for server management—it supports only ASCII connections to an external console.
- 10101 uses a DB-9 connector. Use this port for general purpose serial data transfer.

Default serial connection settings are shown in TABLE 2-3.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>SERIAL MGT or 10101</td>
</tr>
<tr>
<td>Rate</td>
<td>9600 baud</td>
</tr>
<tr>
<td>Parity</td>
<td>No</td>
</tr>
<tr>
<td>Stop bits</td>
<td>1</td>
</tr>
<tr>
<td>Data bits</td>
<td>8</td>
</tr>
</tbody>
</table>

If you connect to the SERIAL MGT port with a DB-9 or DB-25 connector, instead of an RJ-45 connector, the adapter you use will need to perform the crossovers given in TABLE 2-4 or TABLE 2-5.
RJ-45 to DB-9 Adapter Crossovers

### TABLE 2-4  
**RJ-45 to DB-9 Adapter Crossovers**

<table>
<thead>
<tr>
<th>Serial Port (RJ-45 connector) Pin</th>
<th>Adapter (DB-9) Pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (RTS)</td>
<td>8 (CTS)</td>
</tr>
<tr>
<td>2 (DTR)</td>
<td>6 (DSR)</td>
</tr>
<tr>
<td>3 (TXD)</td>
<td>2 (RXD)</td>
</tr>
<tr>
<td>4 (Signal Ground)</td>
<td>5 (Signal Ground)</td>
</tr>
<tr>
<td>5 (Signal Ground)</td>
<td>5 (Signal Ground)</td>
</tr>
<tr>
<td>6 (RXD)</td>
<td>3 (TXD)</td>
</tr>
<tr>
<td>7 (DSR)</td>
<td>4 (DTR)</td>
</tr>
<tr>
<td>8 (CTS)</td>
<td>7 (RTS)</td>
</tr>
</tbody>
</table>

RJ-45 to DB-25 Adapter Crossovers

### TABLE 2-5  
**RJ-45 to DB-25 Adapter Crossovers**

<table>
<thead>
<tr>
<th>Serial Port (RJ-45 connector) Pin</th>
<th>Adapter (DB-25) Pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (RTS)</td>
<td>5 (CTS)</td>
</tr>
<tr>
<td>2 (DTR)</td>
<td>6 (DSR)</td>
</tr>
<tr>
<td>3 (TXD)</td>
<td>3 (RXD)</td>
</tr>
<tr>
<td>4 (Signal Ground)</td>
<td>7 (Signal Ground)</td>
</tr>
<tr>
<td>5 (Signal Ground)</td>
<td>7 (Signal Ground)</td>
</tr>
<tr>
<td>6 (RXD)</td>
<td>2 (TXD)</td>
</tr>
<tr>
<td>7 (DSR)</td>
<td>20 (DTR)</td>
</tr>
<tr>
<td>8 (CTS)</td>
<td>4 (RTS)</td>
</tr>
</tbody>
</table>

USB Ports

The server has four USB ports for attaching supported devices, each conforming to USB 1.1 standard.
External SCSI Port

The SCSI port is a multilmode Ultra160 SCSI interface. To operate at Ultra160 SCSI speeds, it must be in LVD mode. If a single-ended device is connected to the server, it automatically switches to single-ended mode. (The internal SCSI bus is not affected.)

Physical Specifications

| TABLE 2-6  | External Dimensions
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification</td>
</tr>
<tr>
<td>Height</td>
</tr>
<tr>
<td>Width</td>
</tr>
<tr>
<td>Depth</td>
</tr>
<tr>
<td>Weight</td>
</tr>
</tbody>
</table>

Environmental Requirements

You can operate and store the system safely under the conditions specified in TABLE 2-7, FIGURE 2-2 and FIGURE 2-3.

| TABLE 2-7  | Operating and Storage Specifications
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Ambient temperature</td>
</tr>
<tr>
<td>Maximum ambient temperature is derated by 1°C per 500m altitude above 500m</td>
</tr>
<tr>
<td>Relative humidity</td>
</tr>
<tr>
<td>Altitude</td>
</tr>
</tbody>
</table>
FIGURE 2-2  Temperature and Altitude Operating Ranges

FIGURE 2-3  Temperature and Relative Humidity Ranges
Recommended Operating Environment

Your environmental control system must provide intake air for the server that complies with the limits specified in “Environmental Requirements” on page 16.

To avoid overheating, do not direct warmed air towards the server’s intake panels.

**Note** – When you receive your system, leave it in its shipping crate in the environment in which you will install it for 24 hours. This is to prevent thermal shock and condensation.

The server has been tested to the environmental operating limits shown in TABLE 2-7 in order to meet its functional requirements. However, operating computer equipment in extremes of temperature or humidity increases the failure rate of hardware components. To minimize the chance of component failure, use the server within the *optimal* temperature and humidity ranges which are outlined below.

**Optimal Ambient Temperature**

An ambient temperature range of 70°F to 73°F (21°C to 23°C) is optimal for system reliability. At 71°F (22°C), safe relative humidity levels are easily maintained, and a buffer exists in the event of an environmental support system failure.

**Optimal Ambient Relative Humidity**

An ambient relative humidity level in the range of 45% to 50% is the most suitable for data processing operations, to:

- Prevent corrosion
- Provide an operating time buffer in the event of environmental control system failure
- Help avoid failures caused by the intermittent interference from static discharges that occur when relative humidity is too low.

**Note** – When relative humidity is below 35%, electrostatic discharge (ESD) is easily generated and less easily dissipated. This effect becomes critical when levels drop below 30%.
Airflow

The Sun Fire V250 server is self-cooling when operating in still air.
- Ensure unobstructed airflow through the chassis.
- Inlet air enters at the front of the server and exits from the side and back.

Acoustic Noise Generated

The system generates less than 5.8dB in an ambient temperature of 81˚F (27˚C).

Operating Power Statistics

**TABLE 2-8** Operating Power Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating current</td>
<td>7.1A at 100 VAC (one PSU)</td>
</tr>
<tr>
<td></td>
<td>7.6A at 100 VAC (two PSU)</td>
</tr>
<tr>
<td>Maximum in-rush current</td>
<td>25A peak for each PSU</td>
</tr>
<tr>
<td>Operating input voltage range</td>
<td>90V to 264V (100V to 240V nominal)</td>
</tr>
<tr>
<td>Voltage frequency range</td>
<td>47 Hz to 63 Hz (50 Hz to 60 Hz nominal)</td>
</tr>
<tr>
<td>Power factor</td>
<td>0.93 minimum, 0.99 typical</td>
</tr>
<tr>
<td>Maximum volt-ampere rating</td>
<td>710 VA max (one PSU)</td>
</tr>
<tr>
<td></td>
<td>760 VA max (two PSU)</td>
</tr>
</tbody>
</table>

**Note** – Logic ground and chassis ground are connected internally.

**Note** – As long as the server is connected to a power source, the server is in Standby power mode. The only way to turn the server fully off is to remove the server from the power source by unplugging all power cables.
Calculating Power Consumption

TABLE 2-9 shows the estimated power consumed by components in a fully powered system.

All power measurements taken at mains input to PSU.

**TABLE 2-9 Estimated Power Consumption of Server Components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Power consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CPU base configuration</td>
<td>45W</td>
</tr>
<tr>
<td>2 CPU base configuration</td>
<td>275W</td>
</tr>
<tr>
<td>Memory (per pair of DIMMs)</td>
<td></td>
</tr>
<tr>
<td>256</td>
<td>7W</td>
</tr>
<tr>
<td>512</td>
<td>8W</td>
</tr>
<tr>
<td>1GB</td>
<td>10W</td>
</tr>
<tr>
<td>Hard disk drive</td>
<td></td>
</tr>
<tr>
<td>36GB</td>
<td>16W</td>
</tr>
<tr>
<td>73GB</td>
<td>16W</td>
</tr>
<tr>
<td>DVD-ROM drive</td>
<td>10W</td>
</tr>
<tr>
<td>DAT Drive</td>
<td>10W</td>
</tr>
</tbody>
</table>

Calculating Heat Dissipation

To calculate the heat generated by a server, convert the power requirement figure from watts to BTU/hr. A general formula for doing this is to multiply the figure for the power requirement by 3.415.
CHAPTER 3

Communicating With The Server

This chapter provides information about connecting a console device to the server.

The chapter contains the following section.
- “Setting Up a Console Connection to the Server” on page 22
- “Connecting to the Server Using a System Running Microsoft Windows” on page 23
Setting Up a Console Connection to the Server

In order to communicate with the server you must connect a console to it. You can use either a Sun workstation or an ASCII terminal as a console. Whichever type of device you use, make the physical connection to the server by connecting to the appropriate port on the console and to the SERIAL MGT port on the back of the server.

▼ To Connect to the Server Using a Sun Workstation

1. Connect to the server using an RJ-45 patch cable.
2. Use the `tip` command to connect to the terminal session:

```bash
# tip /dev/term/a -9600
```

The `tip` command above is for a workstation that is using its `ttya` serial port to connect to the server. If you later configure your workstation to use `ttyb`, type the following to set up a `tip` session:

```bash
# tip /dev/term/b -9600
```

**Note** – The commands given here will change if the serial connection settings have been reconfigured.

▼ To Connect to the Server Using an ASCII Terminal

1. Set up a connection between the terminal and the Sun Fire V250 server.
   
   For the General terminal settings, refer to the terminal’s operating manual.
2. Make the following setting changes:

<table>
<thead>
<tr>
<th>Property</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplex</td>
<td>Full</td>
</tr>
<tr>
<td>Bit Rate</td>
<td>9600</td>
</tr>
<tr>
<td>Parity</td>
<td>No</td>
</tr>
<tr>
<td>Data Bits</td>
<td>8</td>
</tr>
<tr>
<td>Stop Bit</td>
<td>1</td>
</tr>
<tr>
<td>Flow Control</td>
<td>None</td>
</tr>
<tr>
<td>VT100 Emulation</td>
<td>On (if applicable)</td>
</tr>
</tbody>
</table>

For information about how to power on and configure the server, see “Powering On the Server” on page 26.

Connecting to the Server Using a System Running Microsoft Windows

If you want to configure and operate a Sun Fire V250 server from a PC or laptop running Microsoft Windows, you can do so using the Windows Hyperterminal.

**Note** – The following procedure relates to Windows 98. Other variants of Microsoft Windows may differ slightly.

**Note** – Hot Sync Manager must be closed. If it is open, you will not be able to communicate with the server from your PC or laptop.

▼ To Connect to the Server

1. Connect the RJ-45 patch cable to the port labeled SERIAL MGT on the rear of the server.

2. Connect the other end of the patch cable to the DB-9 adapter.
3. Connect the DB-9 serial adapter to the COM1 serial port on your PC or laptop.

4. Open a Windows Hyperterminal:
   a. Choose Start > Programs > Accessories > Communications > Hyperterminal
   b. Run Hyperttrm.exe

5. In the Set Up New Session window:
   a. Name the session.
   b. Choose an icon.
   c. Click OK.

6. In the Connect To window:
   a. Click Edit.
   b. Click Connect Using.
   c. In the drop-down menu, click Direct to COM1.
   d. Click OK.

   **Note** – If you connected the DB-9 adaptor to a port other than COM1 on your PC or laptop, choose the appropriate option from the list in the drop-down menu.

   d. Click OK.

7. In the COM1 Properties window:
   a. Change the Bits Per Second value to 9600.
   b. Set Flow Control to Xon/Xoff.
      The correct values for all settings in this window are as shown below.

<table>
<thead>
<tr>
<th>Property</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bits Per Second</td>
<td>9600</td>
</tr>
<tr>
<td>Data Bits</td>
<td>8</td>
</tr>
<tr>
<td>Parity</td>
<td>None</td>
</tr>
<tr>
<td>Stop Bits</td>
<td>1</td>
</tr>
<tr>
<td>Flow Control</td>
<td>Xon/Xoff</td>
</tr>
</tbody>
</table>

   c. Click OK.
      The `sc>` prompt appears in the Windows Hyperterminal.
Powering On and Configuring the Server

This chapter tells you how to power on and configure the server to suit your application. It contains the sections:

- “Powering On the Server” on page 26
- “Powering Off the Server” on page 28
- “Configuring the Server” on page 29
- “Accessing the ALOM Software” on page 32
Powering On the Server

To power on the server, you can use either the On/Standby button located behind the door, or the keyboard. Powering on from the keyboard is better, because you can then see the system output which is generated as the server powers on.

Operation Mode Switch

Before you begin the procedures in this section, make sure that the operation mode switch is in the normal or diagnostics position. With the switch in that position, the On/Standby button is able to control the power state of the server. For more information on the operation mode switch, see the Sun Fire V250 Server Administration Guide.

To Power On From the Keyboard

1. Connect the server to the power supply.

   The server automatically goes into Standby power mode when it is connected to a power source.

2. Set up a connection to the SERIAL MGT port.

   For details, see “Setting Up a Console Connection to the Server” on page 22.

   When you switch to the ALOM prompt after initial poweron, you will be logged in as the admin user and prompted to set a password. You must set this password in order to execute certain commands.

3. When prompted to do so, set a password for the admin user.

   The prompt to set a password appears after you try to execute a command.

   
   ```
   sc> console
   Warning: the console command is being ignored because the password for admin is not set.
   Setting password for admin.
   New password: *******
   Re-enter new password: *******
   ```
The password must conform to the following rules:

- contain at least two alphabetic characters
- contain at least one numeric or one special character
- be at least six characters long

Once the password is set, the admin user has full permissions and can execute all ALOM command line interface (CLI) commands.

4. Turn on power to any peripherals and external storage devices you have connected to the server.
   Read the documentation supplied with the device for specific instructions.

5. At the console `sc>` prompt, type:

   ```
   sc> poweron
   ```

6. Type:

   ```
   sc> console
   ```

---

To Power On Using the On/Standby Button

**Caution** – Never move the system when the system power is on. Movement can cause catastrophic disk drive failure. Always power off the system before moving it.

1. Connect the server to the power supply.
   The server automatically goes into standby power mode when it is connected to a power source.

2. Turn on power to any peripherals and external storage devices you have connected to the server.
   Read the documentation supplied with the device for specific instructions.

3. Open the door.

4. Set the operation mode switch to the Normal or Diagnostics position.

5. Press the On/Standby button and release it within four seconds.
   a. Turn the operation mode switch to the Locked position.
      This prevents the server from being inadvertently powered off.
6. Close the door.

Powering Off the Server

Whenever possible, you should initiate an orderly shutdown, as forcing an immediate hardware shutdown can corrupt the disk drive and cause loss of data.

- Pressing and releasing the On/Standby button initiates an orderly software shutdown.
- Pressing and holding the button for four seconds causes an immediate hardware shutdown.

**Note** – Applications running on the Solaris operating environment can be adversely affected by a poorly executed system shutdown. Shut down any applications before you power off the system.

▼ To Power Off from the Keyboard

1. Notify users that the system will be powered off.
2. Back up the system files and data, if necessary.
3. Type:

```
sc> poweroff
Are you sure you want to power off the system [y/n]? y
SC Alert: SC Request to Power Off Host.
sc>
SC Alert: Host system has shut down.
```

▼ To Power Off Using the On/Standby Button

1. Notify users that the system will be powered off.
2. Back up the system files and data, if necessary.
3. Open the door and put the operation mode switch into the Normal or Diagnostics position.
4. Press and release the On/Standby button.
   The system begins an orderly software system shutdown.

Configuring the Server

The Sun Fire V250 server comes with the Solaris operating environment preinstalled. When you power on the server for the first time, you will automatically be taken through a configuration procedure. This procedure consists of a number of questions, your answers to which determine the server’s configuration.

Choose the configuration that best suits your requirements from the list below, and follow the instructions in the appropriate section to configure your server.

- “To Configure With the Server’s Details Registered at a Name Server” on page 29
- “To Configure Without the Server’s Details Registered at a Name Server” on page 30
- “To Configure a Standalone Server for the First Time” on page 31
- “To Clear the Configuration and Start Again” on page 31

To Configure With the Server’s Details Registered at a Name Server

Note – Follow the instructions in this section only if you have a name server installed on your network. For instructions about using a name server to automate the process of configuring the Solaris operating environment on multiple servers, refer to the Solaris Advanced Installation Guide that accompanies the Solaris operating environment CDs.

During the power on procedure, you will be prompted for certain information. The information you provide determines the configuration of the server.

1. Specify the type of terminal with which you are communicating with the server.
2. Specify whether you need IPv6 enabled, and then follow the instructions on the screen.
3. Specify whether you want to enable the Kerberos Security mechanism, and then follow the instructions on the screen.
4. When prompted, give a password (if needed) for users who will log in as root.
To Configure Without the Server’s Details
Registered at a Name Server

Follow the instructions in this section if you do not have a name server configured on your network.

**Tip** – Read these instructions through before you follow them, to see what information the system will prompt you for when you start it for the first time.

During the power on procedure, you will be prompted for certain information. The information you give determines the configuration of the server.

1. Specify your type of terminal.
2. When prompted whether you want the server to be networked, answer Yes.
3. When prompted, specify an IP address.
4. Specify whether the IP address is to be configured by DHCP.
5. Specify the Ethernet port as the primary Ethernet connection.
6. Specify a host name for the server.
7. Specify whether you need IPv6 enabled, and then follow the instructions on the screen.
8. Specify whether you want to enable the Kerberos Security mechanism, and then follow the instructions on the screen.
9. Specify the name service you want the server to use.
10. Specify the name of the domain of which the server will be a part.
11. Specify whether you want the system to search the network for a name server or use a particular name server.
    If you choose to use a particular name server, specify the host name and IP address of the name server you want to use.
12. At the name server, create entries in the network administration files for the system you are setting up.
13. At the system you are setting up, follow the prompts to provide time and date information.
14. When prompted, give a password (if needed) for users who will log in as root.
To Configure a Standalone Server for the First Time

1. Specify the type of terminal you are using to communicate with the server.
2. When prompted to indicate whether you want the server to be networked, type No.
3. Specify a Host Name for the server.
4. Confirm the information you have given.
5. Specify the date and time information.
6. When prompted, give a password (if needed) for users logging in as root.

Clearing Your Configuration

If you want to start the power on process again, as if from a previously unused server, you must clear the configuration of the server.

To Clear the Configuration and Start Again

1. At the Solaris prompt, type:

```
# sys-unconfig
```

2. When prompted for confirmation to create a “blank” server, type y.
3. When the OpenBoot PROM prompt appears, type:

```
ok> boot
```

4. Follow the instructions in one of the following sections:
   - “To Configure With the Server’s Details Registered at a Name Server” on page 29
   - “To Configure Without the Server’s Details Registered at a Name Server” on page 30
   - “To Configure a Standalone Server for the First Time” on page 31
Accessing the ALOM Software

For a brief introduction to the Advanced Lights Out Manager (ALOM) software, see “Advanced Lights Out Manager” on page 7.

The ALOM software is preinstalled on your server hardware and is ready to run as soon as power is applied to the server. However, you need to perform some basic configuration steps to customize the ALOM software to suit your application.

For detailed ALOM instructions, and information about how to configure ALOM, refer to the ALOM Online Help, which is included on the Sun Fire V250 Server Documentation CD.

▼ To Display the ALOM Prompt

You need to be at the ALOM prompt to use ALOM commands, and connected via either the NET MGT or SERIAL MGT port.

1. Type the default keystroke sequence:

```
# #.
```

When you switch to the ALOM prompt after initial poweron, you will be logged in as the admin user and be prompted to set a password. You must set this password in order to execute certain commands.

● If you are prompted to do so, set a password for the admin user.

The password must:
- contain at least two alphabetic characters
- contain at least one numeric or one special character
- be at least six characters long

Once the password is set, the admin user has full permissions and can execute all ALOM CLI commands.
To Display the Server Console Prompt

1. Type:

```
sc> console
```

More than one ALOM user can be connected to the server console stream at a time, but only one user is permitted to type input characters to the console.

If another user is logged on and has write capability, you will see the message below after issuing the `console` command:

```
sc> Console session already in use. [view mode]
```

To Take Console Write Capability Away From Another User

1. Type:

```
sc> console -f
```

Provide confirmation when prompted to do so.
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