



Sun Fire™ Midrange Systems Firmware 5.20.0 Release Notes

Sun Microsystems, Inc.
www.sun.com

Part No. 819-5087-10
April 2006, Revision A

Submit comments about this document at: <http://www.sun.com/hwdocs/feedback>

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.sun.com/patents> and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, docs.sun.com, Java, OpenBoot, Sun Fire, SunStorEdge, and Solaris, are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and in other countries.

All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, Etats-Unis. Tous droits réservés.

Sun Microsystems, Inc. a les droits de propriété intellectuels relatants à la technologie qui est décrit dans ce document. En particulier, et sans la limitation, ces droits de propriété intellectuels peuvent inclure un ou plus des brevets américains énumérés à <http://www.sun.com/patents> et un ou les brevets plus supplémentaires ou les applications de brevet en attente dans les Etats-Unis et dans les autres pays.

Ce produit ou document est protégé par un copyright et distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, docs.sun.com, Java, OpenBoot, Sun Fire, SunStorEdge, et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciées de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



Please
Recycle



Adobe PostScript

Contents

Firmware Documentation for Sun Fire Midrange and Entry-Level Midrange Systems	1
Features Introduced in 5.20.0	2
Supported Board Types	2
Availability Features Receive Further Enhancements in 5.20.0	2
Commands Added or Modified for 5.20.0	2
General Information	3
Requirements for Certain Midrange Systems	3
Firmware Compatibility	3
Using UltraSPARC IV+ System Boards in Domains	4
▼ To Enable UltraSPARC IV+ Domain Support	5
▼ To Display the Status of UltraSPARC IV+ Domain Support	6
UltraSPARC IV+ I/O Board DR Restriction	6
Sun Fire Link Interconnect Supported On Solaris 8 and Solaris 9 Operating Systems Only	7
Firmware Upgrade and Downgrade	7
Power Supply Failures	8
Known Limitations for Sun Fire Midrange Systems	8
Change POSIX timezones 2007 transition dates – U.S. Energy Policy Act of 2005 (BugID 6369788)	9

SNMP: FrameManager Does Not Have an Entry in the MIB and Frame State Traps (RFE 4987286) 9

sgcn_output_line(): OBP console blocked; message data lost (BugID 4939206) 9

Upgrade of Firmware Changes Connection Type (BugID 5060748, 6255332) 10

Power Failure May Corrupt SEEPROM Contents (BugID 5093450) 10

panic:recursive mutex_enter, Then panic:panic sync timeout After cfgadm unconfigure N0.SB0::mem (BugID 6379866) 11

Sun Fire™ Midrange Systems Firmware 5.20.0 Release Notes

This document provides general information and system limitations for firmware release 5.20.0 on Sun Fire E6900/E4900/6800/4810/4800/3800 systems.

This document contains the following topics:

- [Firmware Documentation for Sun Fire Midrange and Entry-Level Midrange Systems](#)
- [Features Introduced in 5.20.0](#)
- [General Information](#)
- [Known Limitations for Sun Fire Midrange Systems](#)

Firmware Documentation for Sun Fire Midrange and Entry-Level Midrange Systems

The following documentation sets are included with the 5.20.0 firmware:

- Sun Fire midrange (E6900/E4900/6800/4810/4800/3800) systems
 - *Sun Fire Midrange Systems Platform Administration Manual* (part number 819-5088-10)
 - *Sun Fire Midrange System Controller Command Reference Manual* (part number 819-5089-10)
 - *Sun Fire Entry-Level Midrange Systems Firmware 5.20.0 Release Notes* (part number 819-5087-10)
 - `install.info` – A text file included with the firmware that describes the firmware upgrade and downgrade procedures for Sun Fire midrange systems.

For firmware upgrade and downgrade information on entry-level midrange (E2900/V1280/Netra 1280) systems, refer to the *Sun Fire Entry-Level Midrange System Administration Guide*.

- Sun Fire entry-level midrange (E2900/V1280/Netra 1280) systems
 - *Sun Fire Entry-Level Midrange System Administration Guide* (part number 819-5086-10)
 - *Sun Fire Entry-Level Midrange System Controller Command Reference Manual* (part number 819-5085-10)
 - *Sun Fire Entry-Level Midrange System Firmware 5.20.0 Release Notes* (part number 819-5084-10)

Features Introduced in 5.20.0

This section provides a brief description of the new features in 5.20.0 for Sun Fire midrange systems.

Supported Board Types

The 5.20.0 release supports UltraSPARC IV+ CPU/Memory boards – For information on upgrading systems with UltraSPARC IV+ CPU/Memory boards, refer to the *Sun Fire Midrange Systems UltraSPARC IV+ CPU/Memory Board Upgrade Requirements* (819-1841-10) and the *Sun Fire High-End and Midrange Systems CPU/Memory Board Installation Guide* (806-2946).

Availability Features Receive Further Enhancements in 5.20.0

The 5.20.0 firmware release, when used on systems with domains running the Solaris 10 Operating System, provides information on Solaris-detected hardware fault events. This information is captured by Solaris software and then communicated to the system controller. The system controller reports this information through automatic diagnosis (AD) and domain (DOM) event messages.

Commands Added or Modified for 5.20.0

The following SC command was added in 5.20.0:

- `setupdomain` – Added `log-reset-data`, `verbose-reset-data`, and `reset-data-ftp-url[]` options.
- `showdomain` – Added display of `log-reset-data`, `verbose-reset-data`, and `reset-data-ftp-url[]` options.

For details on these commands, refer to their descriptions in the *Sun Fire Midrange System Controller Command Reference Manual*.

General Information

Requirements for Certain Midrange Systems

E6900/E4900 systems and midrange systems with UltraSPARC IV+ CPU/Memory boards require 5.20.0 firmware and compatible releases of the Solaris 10 or Solaris 9 operating system (when available) as the minimum Solaris releases.

Firmware Compatibility

System boards running firmware versions 5.12.x through 5.19.x firmware are compatible with each other, but system boards running 5.11.x are not compatible with system boards running firmware versions 5.12.x through 5.19.x. You can check the firmware compatibility of your boards by running the `showboards -p version -v` command. The information displayed indicates whether the firmware for each board is compatible with the ScApp version running on the SC.

Update all your system boards to the same firmware version and activate the new firmware version on your domains as soon as possible. Activate the domain firmware by running the `setkeyswitch off` and `setkeyswitch on` commands. For details on updating your system firmware and verifying firmware compatibility, refer to the `Install.info` file included with this firmware release.

Certain hardware components require minimum firmware revisions, as follows:

- UltraSPARC IV CPU/Memory boards require 5.16.0 firmware or greater. The UltraSPARC IV CPU/Memory boards will not run on firmware releases earlier than 5.16.0.
- UltraSPARC IV+ CPU/Memory boards require 5.19.0 firmware or greater. The UltraSPARC IV+ CPU/Memory boards will not run on firmware releases earlier than 5.19.0.

- COD boards must be running a firmware version that supports COD, which was introduced in firmware release 5.14.0.

Using UltraSPARC IV+ System Boards in Domains

You can mix system boards in your Sun Fire E6900 or 6800 system configurations. The combinations of system boards affect the domain configurations that you can create. However, if a partition includes any UltraSPARC IV+ system boards, only one domain can be active within that partition.

Domain configuration options are illustrated in [TABLE 1](#):

TABLE 1 Sun Fire E6900 or 6800 System Domain System Board Combinations

Configuration	Domain A	Domain B	Domain C	Domain D	setupplatform
					usiv+ Variable
US IV+ in two domains	US III+	Not Supported	US III+	Not Supported	a = true
	US IV		US IV		c = true
	US IV+		US IV+		
US IV+ in one domain	US III+	Not Supported	US III+	US III+	a = true
	US IV		US IV	US IV	c = false
	US IV+				
US IV+ in one domain	US III+	US III+	US III+	Not Supported	a = false
	US IV	US IV	US IV		c = true
			US IV+		
US IV+ in no domains	US III+	US III+	US III+	US III+	a = false
	US IV	US IV	US IV	US IV	c = false

Note that only domains A and B are available in systems configured in a single partition.

Similar considerations apply when configuring domains in Sun Fire E4900 or 4800 systems. See [TABLE 2](#):

TABLE 2 Sun Fire E4900 or 4800 System Dual Partition Domain System Board Combinations

Configuration	Domain A	Domain C	setupplatform usiv+ Variable
US IV+ in two domains	US III+	US III+	a = true
	US IV	US IV	c = true
	US IV+	US IV+	
US IV+ in one domain	US III+	US III+	a = true
	US IV	US IV	c = false
	US IV+		
US IV+ in one domain	US III+	US III+	a = false
	US IV	US IV	c = true
		US IV+	
US IV+ in no domains	US III+	US III+	a = false
	US IV	US IV	c = false

The single-partition case allows for only one active domain containing UltraSPARC IV+ system boards, domain A. See [TABLE 3](#):

TABLE 3 Sun Fire E4900 or 4800 System Single Partition Domain System Board Combinations

Domain A	Domain B	setupplatform usiv+ Variable
US III+	Not	a = true
US IV	Supported	c = true or
US IV+		false
US III+	US III+	a = false
US IV	US IV	c = true or
		false

▼ To Enable UltraSPARC IV+ Domain Support

- Use the `setupplatform` command to change `usiv+` support for Domains A or C

For example,

```
schostname:A> setupplatform -p usiv+

UltraSPARC IV+ Configuration
-----
Is UltraSPARC IV+ going to be deployed in domain A? [false]: true
Is UltraSPARC IV+ going to be deployed in domain C? [false]:
```

For further information about the `setupplatform` command, see the *Sun Fire Midrange System Controller Command Reference Manual*.

Note – The `usiv+` option can be changed *only* while all domains in the affected partitions are off. For information about using the `setkeyswitch` command to power domains on and off, see the *Sun Fire Midrange System Controller Command Reference Manual*.

▼ To Display the Status of UltraSPARC IV+ Domain Support

- Use the `showplatform -p usiv+` command

For example,

```
schostname:A> showplatform -p usiv+

UltraSPARC IV+ is supported in domain A
UltraSPARC IV+ is not supported in domain C
```

UltraSPARC IV+ I/O Board DR Restriction

If your Sun Fire E6900 or E4900 server is configured as:

- A single domain within a single partition, including one or more UltraSPARC IV+ system boards

or

- A two domain (A & C) configuration in dual partition mode, each domain including one or more UltraSPARC IV+ system boards

Then you cannot add an I/O board to the domain using the DR `connect` and `configure` commands. However, you can use the DR `unconfigure` and `disconnect` commands on an I/O board in the described system.

This restriction arises because DR requires a second domain in which the I/O board can be tested. Please refer to the platform administration manual for further information on removing and replacing boards.

Sun Fire Link Interconnect Supported On Solaris 8 and Solaris 9 Operating Systems Only

In order to use the Sun Fire Link interconnect with 5.20.0 firmware, you must use either Solaris 8 or Solaris 9 operating systems.

Firmware Upgrade and Downgrade

Instructions for upgrading firmware are provided in the `Install.info` file included with this firmware release for Sun Fire midrange systems. The `Install.info` file also contains instructions for downgrading to an earlier version of the firmware.

E6900/E4900 systems and systems that contain UltraSPARC IV CPU/Memory boards must run firmware version 5.16.0 or greater. Earlier firmware versions do not support the UltraSPARC IV CPU/Memory boards.

E6900/E4900 systems and systems that contain UltraSPARC IV+ CPU/Memory boards must run firmware version 5.19.0 or greater. Earlier firmware versions do not support the UltraSPARC IV+ CPU/Memory boards.

Midrange systems that contain SC V2s can be downgraded from 5.19.0 or 5.20.0 to earlier firmware releases, but note that those earlier releases will not support features and bug fixes made in 5.19.0 or 5.20.0.



Caution – If you have a redundant system controller (SC) configuration, you must first upgrade the firmware on the spare SC, then on the main SC, as explained in the `Install.info` file.

Power Supply Failures

In some cases powering off or powering on a power supply after you upgrade to firmware version 5.14.x or greater can cause a power supply fault on Sun Fire 6800/4810/4800/3800 systems.

Note – The faults described here do *not* apply to the A184 and A185 power supplies.

The power supply failure might exhibit the following characteristics:

- Only the amber *fault* LED of the power supply is illuminated.
- The showboards command output identifies the Status for the power supply as Failed or the Component Type as No Grid Power.

Use the following workarounds to resolve the power supply failure. Start with Workaround 1. If this workaround is unsuccessful, perform Workaround 2. If the second workaround is unsuccessful, perform Workaround 3.

- Workaround 1 – Turn the power supply switch off and then on. However, if you have a Sun Fire 6800 system, perform Workaround 2 instead, as the power supplies do not have a switch.
- Workaround 2 – Remove the failed power supply from the system, wait 20 seconds, then put it back in. If its green *activated* LED is not the only LED illuminated, repeat the procedure until only the green *activated* LED is illuminated. Several attempts may be necessary.
- Workaround 3 – Reboot the SC, then use the `power on` command to turn on the power supply.

Known Limitations for Sun Fire Midrange Systems

This section describes only those bugs with potentially significant impact. The README file lists all bugs that have been fixed, including those seen only internally at Sun.

Change POSIX timezones 2007 transition dates – U.S. Energy Policy Act of 2005 (BugID 6369788)

New Daylight Saving Time (DST) rules come into effect (depending upon timezone) on Sunday March 11, 2007. For example, In 2006 Pacific Standard Daylight Saving Time (PDT) starts on Sunday April 2, and ends on Sunday October 29. In 2007 PDT starts on Sunday March 11, and ends on Sunday November 4.

The DST rules have changed due to the U.S. Energy Policy Act of 2005 with changes beginning in 2007. A subset of these changes were instituted in 2006 in conjunction with the Australian Commonwealth Games.

As a reminder, the system controller (SC) will issue reboot warning messages on SC consoles, printing once a day starting on January 1, 2007. For example,

WARNING: SC was booted in year 2006, and SC current year is 2007. Please reboot the SC to get the current Daylight Saving Time rules.

To load the new DST rules, reboot the SC between January 1, 2007 and Sunday March 11, 2007.

SNMP: FrameManager Does Not Have an Entry in the MIB and Frame State Traps (RFE 4987286)

SNMP is a private interface for the midrange system controllers. This means that Sun Management Center will not receive FrameManager information through SNMP. If you have a loghost, note that FrameManager and RTU statuses can be monitored from the loghost.

Workaround: None.

`sgcn_output_line(): OBP console blocked; message data lost (BugID 4939206)`

A message indicating that there are dropped console messages is displayed when data is being provided by the Solaris Operating System or OpenBoot PROM faster than the system controller can write it to the console.

Workaround: None.

Upgrade of Firmware Changes Connection Type (BugID 5060748, 6255332)

If you change the connection type after downgrading firmware on midrange systems from 5.17.x, 5.18.x, 5.19.x, or 5.20.x to a lower firmware version, the new connection type selected in the lower firmware version is not guaranteed once you update the firmware back to 5.17.x, 5.18.x, 5.19.x, or 5.20.x. If you subsequently update the firmware to 5.17.x, 5.18.x, 5.19.x, or 5.20.x from the lower firmware version, the original connection type that you had in 5.17.x, 5.18.x, 5.19.x, or 5.20.x before the change to a lower firmware version will be restored.

Workaround: To ensure system security, use the `setupplatform` command to set the connection type explicitly.

Power Failure May Corrupt SEEPROM Contents (BugID 5093450)

If a power failure and Sc reboot occur during an add segment operation, one or more SEEPROM segments may become corrupted upon a reboot. The following example log sequence shows illegal tag statements:

```
Aug 04 14:18:42 schostname-SC0 schostname-sc0 Platform.SC: [ID 470632 local0.error]
/N0/SB2: SepromSegment(constructor): ID at 0x0042: Illegal Tag 0x00 at 0x002b
Aug 04 14:18:42 schostname-sc0 schostname-sc0 Platform.SC: [ID 576073 local0.error]
/N0/SB2: SepromSegment(constructor): PE at 0x00bf: Illegal Tag 0x00 at 0x0102
Aug 04 14:18:42 schostname-sc0 schostname-sc0 Platform.SC: [ID 982808 local0.error]
/N0/SB2: SepromSegment(constructor): PS at 0x01c6: Illegal Tag 0x00 at 0x0000
Aug 04 14:18:42 schostname-sc0 schostname-sc0 Platform.SC: [ID 586548 local0.error]
/N0/SB2: SepromSegment(constructor): FD at 0x01dd: Illegal Tag 0x00 at 0x0002
Aug 04 14:18:46 schostname-sc0 Platform.SC: [ID 139087 local0.notice] Clear
/N0/SB2 invalid segment
.
.
.
```

Even though these error messages are displayed, the availability of the domains is not affected.

Workaround: None.

```
panic:recursive mutex_enter, Then  
panic:panic sync timeout After cfgadm  
unconfigure N0.SB0::mem (BugID 6379866)
```

In some systems using UltraSPARC IV+ cpu/memory boards, the use of this command,

```
# cfgadm -c unconfigure N0.SB0::memory
```

can lead to system panics.

Workaround: Apply the appropriate patches to your Solaris OS.

