



Sun Fire Midrange Systems Firmware 5.21.1 Release Notes

Sun Fire™ E6900/E4900/6800/4810/
4800/3800 Systems

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Sun Fire Midrange Systems Firmware 5.21.1 Release Notes

This document provides general information and system limitations for firmware release 5.21.1 on Sun Fire™ E6900, E4900, 6800, 4810, 4800, or 3800 systems. These release notes provide the following information:

- [“Related Firmware Documentation for Sun Fire Midrange Systems” on page 1](#)
- [“Location of Patch for Download” on page 2](#)
- [“Features and Terminology Introduced in 5.21.0 to Support the Sun Fire USBRDT 5240 Uniboard” on page 3](#)

Related Firmware Documentation for Sun Fire Midrange Systems

The following documentation sets are relevant to the 5.21.1 firmware:

<i>Sun Fire Midrange Systems Platform Administration Manual</i>	Part number 819-5088
<i>Sun Fire Midrange System Controller Command Reference Manual</i>	Part number 819-5089
<i>Sun Fire Midrange Systems Firmware 5.21.1 Release Notes (this document)</i>	Part number 820-4999
<code>Install.info</code>	A text file included with the firmware that describes the firmware upgrade and downgrade procedures for Sun Fire midrange systems.

Note – For firmware upgrade and downgrade information on entry-level midrange (E2900/V1280/Netra™ 1280/Netra 1290) systems, refer to the *Sun Fire Entry-Level Midrange System Administration Guide*.

Finding Information About the 5.20.x Firmware

For information about the following topics, refer to the following release notes:

- *Sun Fire Midrange Systems Firmware 5.20.0 Release Notes* (part number 819-5087)
 - Changes to the `setupdomain` and `showdomain` system controller (SC) commands
 - Enhancements to availability features
 - Requirements for midrange systems
 - UltraSPARC® IV+ I/O board DR restriction
 - Limitations of support for Sun Fire Link Interconnect
 - Upgrading/downgrading firmware
 - Power supply failures
- *Sun Fire Midrange Systems Firmware 5.20.1 Release Notes* (part number 819-6577)
 - Support for limited dual domain operation with UltraSPARC IV+ CPU/memory boards
 - Changes to the `setupplatform`, `showplatform`, `setupdomain`, and `showdomain` SC commands
 - Configuring UltraSPARC IV+ domains
 - Displaying the status of UltraSPARC IV+ domains
 - Supported system board combinations
- *Sun Fire Midrange Systems Firmware 5.20.2 Release Notes* (part number 819-7476)
 - Addition of the `showchs` SC command for depicting faulty components

Location of Patch for Download

To update a system that is running a release of the Sun Fire Midrange Firmware that is earlier than 5.21.0, you can download patch 114528-01 from the SunSolve® website:

<http://www.sun.com/sunsolve>

Note – This patch is preinstalled on the Sun Fire USBRDT 5240 Uniboard.

Features and Terminology Introduced in 5.21.0 to Support the Sun Fire USBRDT 5240 Uniboard

The Sun Fire USBRDT 5240 Uniboard occupies a single board slot in a Sun Fire 4800 (with a required power supply and fan upgrade), E4900, 6800, or E6900 chassis. The board has its own on-board service processor (SP), also referred to as the *board SC*, that provides system management functionalities (Integrated Lights Out Manager [ILOM]) for the Sun Fire USBRDT 5240 Uniboard. The board receives bulk power from the Sun Fire chassis and relies on chassis fans for cooling.

In addition, the Sun Fire USBRDT 5240 Uniboard has CPUs and other components that are referred to in these release notes as the *USBRDT 5240 host* (or simply *the host*). In these release notes, the term “host” is *not* used to refer to the platform.

For more information, refer to the *Sun Fire USBRDT 5240 Uniboard Product Notes*.

The following sections describe the new features in the Sun Fire Midrange Systems Firmware 5.21.0 to support the Sun Fire USBRDT 5240 Uniboard.

Supported Board Types

The Sun Fire Midrange Systems Firmware 5.21.0 supports the Sun Fire USBRDT 5240 Uniboard. For information, refer to the *Sun Fire USBRDT 5240 Uniboard Product Notes*.

You can use the `showboards` command to confirm the presence of the Sun Fire USBRDT 5240 Uniboard, as shown in slot 2 (SB2) in the following example:

```
SC> showboards
```

Slot	Pwr	Component	Type	State	Status	Domain
----	---	-----		----	-----	-----
SSC1	On	System Controller		Main	Passed	-
ID0	On	Sun Fire 4800 Centerplane		-	OK	-
PS0	On	A213 Power Supply		-	OK	-
PS1	On	A213 Power Supply		-	OK	-
PS2	On	A213 Power Supply		-	OK	-
FT0	On	Fan Tray		Low Speed	OK	-
FT1	On	Fan Tray		Low Speed	OK	-
FT2	On	Fan Tray		Low Speed	OK	-
RP0	On	Repeater Board		-	OK	-
RP2	Off	Repeater Board		-	OK	-
/N0/SB0	On	CPU Board V3		Active	Passed	A
SB2	Off	USBRDT-5240 Board		Standby	-	-
/N0/IB6	On	PCI I/O Board		Active	Passed	A
IB8	Off	PCI I/O Board		Assigned	Not tested	Isolated

```
SC>
```

In the preceding example, the `Pwr` column for the SB2 entry has a value of `Off`, which indicates that the Sun Fire USBRDT 5240 Uniboard host is not allowed to power on. The `Pwr` column does not indicate the power state of the host. If, instead, this entry displayed `On`, the board's host would be allowed to power on.

Also in the preceding example, note that the `State` column now shows the poweron state for the Sun Fire USBRDT 5240 Uniboard host, where the following values apply:

- A dash (-) indicates that the Sun Fire USBRDT 5240 Uniboard does not have grid power.
- Standby indicates that the board has grid power, but the host is not powered on.
- Active indicates that the board has grid power, and the host is powered on.

poweron and poweroff Commands

When used with the Sun Fire USBRDT 5240 Uniboard, the platform SC commands `poweron` and `poweroff` are used to enable or disable power on of the slot containing the Sun Fire USBRDT 5240 Uniboard. Once the slot is enabled for power on, the board can be powered on and off in ILOM.

Note – There is no change in the `poweron` and `poweroff` command syntax when the commands are used with a Sun Fire USBRDT 5240 Uniboard.

For more information about using ILOM, refer to the *Sun Integrated Lights Out Manager 3.0 Supplement for Sun USBRDT 5240 Uniboard* (part number 820-7005).

The successful completion of the `poweron` command indicates that the USBRDT 5240 host is allowed to power on. The `Pwr` column in the `showboards` output will display `On`.

```
uni4800-sc0:SC> poweron sb2  
SB2: poweron enabled  
uni4800-sc0:SC>
```

The successful completion of the `poweroff` command indicates that the Sun Fire USBRDT 5240 Uniboard's host is *not* allowed to power on. The `Pwr` column in the `showboards` output for the Sun Fire USBRDT 5240 Uniboard will display `Off`.

```
uni4800-sc0:SC> poweroff sb2  
SB2: poweron disabled  
uni4800-sc0:SC>
```

If a board is active, it cannot be `poweron` disabled. If the `poweron` command is issued, the attempt to power off will fail.

```
uni4800-sc0:SC> poweroff sb2  
SB2: can not disable poweron while the board is still active  
uni4800-sc0:SC>
```

Temperature Monitoring

ILOM that is running on the Sun Fire USBRDT 5240 Uniboard SC monitors the board's temperature by polling various sensors. When ILOM detects a high-temperature condition, it communicates the condition to the Sun Fire SC firmware and requires that the chassis fan speed be set to high.

The firmware only has information about the temperature condition of the Sun Fire USBRDT 5240 Uniboard being normal or high. The firmware does not have information about the actual temperature reading or temperature monitoring thresholds, which is information that ILOM provides.

As shown in the following example, you can use the firmware's `showenvironment` command to determine whether the board's temperature is normal or high. This example shows that the Sun Fire USBRDT 5240 Uniboard's temperature is normal (the value in the `Status` column is OK).

```
uni4800-sc0:SC> showenvironment sb4
```

Slot	Device	Sensor	Value	Units	Age	Status
SB4	Board 0	Temp. 0	-	Degrees C	7 sec	OK

```
uni4800-sc0:SC>
```

In the following example, the Sun Fire USBRDT 5240 Uniboard's temperature is high (the value in the `Status` column is * WARNING HIGH *).

```
uni4800-sc0:SC> showenvironment sb4
```

Slot	Device	Sensor	Value	Units	Age	Status
SB4	Board 0	Temp. 0	-	Degrees C	3 sec	* WARNING HIGH *

```
uni4800-sc0:SC>
```

New Commands Introduced for the Sun Fire USBRDT 5240 Uniboard

This release of the firmware supports the following new commands:

- `resetboardsc`
- `powercycle`

`resetboardsc` Command

The `resetboardsc` command enables you to reset the Sun Fire USBRDT 5240 Uniboard's SC in the event that it becomes unresponsive.

In the following example, SB4 is a slot occupied by a Sun Fire USBRDT 5240 Uniboard, and SB0 is a slot occupied by a traditional uniboard.

```
uni4800-sc0:SC> resetboardsc -h

resetboardsc -- reset the system controller on the named server board

Usage: resetboardsc [-y|-n] <board> ...
       resetboardsc -h

       board -- the board name, typically SB0, SB1, ...

       -y -- do not prompt for confirmation
       -n -- do not execute the command if confirmation is requested
       -h -- display this help message

uni4800-sc0:SC>
uni4800-sc0:SC> resetboardsc sb0
sb0: is not a valid board
uni4800-sc0:SC>
uni4800-sc0:SC> resetboardsc sb4
Are you sure you want to reset the system controller on server board SB4? [no] yes

uni4800-sc0:SC>
```

powercycle Command

The `powercycle` command enables you to power cycle (off and then on) a Sun Fire USBRDT 5240 Uniboard in the event that the board becomes unresponsive and cannot be reset using the `resetboardsc` command.

```
uni4800-sc0:SC> powercycle -h

powercycle -- powers cycle server boards

Usage: powercycle <board> ...
       powercycle -h

       board -- the board name, typically SB0, SB1, ...

       -h -- display this help message

uni4800-sc0:SC>
```

When the Sun Fire USBRDT 5240 Uniboard's host is not powered on or active, the `powercycle` command produces the following output:

```
SC> powercycle sb2
SB2: power cycled
SC>
```

When the board's host is powered on and active, the `powercycle` command produces the following output:

```
SC> powercycle sb2
SB2: This command will power cycle (off then on) the server board
at SB2.
SB2: The server board should not be power cycled while it's still
active.
SB2: Data loss may occur.
SB2: Do you want to forcefully power cycle? [no] no
SC>
```

Hardware and Software Support for the Sun Fire USBRDT 5240 Uniboard

Sun Fire Midrange System Power Supply Upgrade Requirement

The Sun Fire 4800 and E4900 systems must be upgraded to use A213 power supplies and latest fan trays to support the Sun Fire USBRDT 5240 Uniboard. The Sun Fire 6800 and E6900 systems must be upgraded to use A212 power supplies and latest fan trays to support the Sun Fire USBRDT 5240 Uniboard.

Note – The Sun Fire Midrange Systems firmware does not allow you to power on the system until the power supply has been upgraded.

For more information about the power supply upgrade, hardware kits, and other considerations, refer to the *Sun Fire USBRDT 5240 Uniboard Product Notes* (part number 820-2451).

Reassigning a Domain

On Sun Fire midrange systems (4800, E4900, 6800, or E6900 systems that have been upgraded), inserting a Sun Fire USBRDT 5240 Uniboard into a slot removes the slot from the ACL list of all domains. If the slot is later occupied by an UltraSPARC III, IV, or IV+ CPU/Memory board, use the ScApp command `setupplatform -p acl` to add the slot back into the domain ACL list for the UltraSPARC CPU/Memory boards.

