



Sun Fire™ Entry-Level Midrange Systems Firmware 5.19.0 Release Notes

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Sun Fire Entry-Level Midrange Systems Firmware 5.19.0 Release Notes

This document provides information on new and revised features, as well as late-breaking news, for firmware release 5.19.0 on Sun Fire E2900 Sun Fire V1280, and Netra 1280 systems.

This document contains the following topics:

- [Firmware Documentation for Sun Fire Entry-Level Midrange \(E2900/V1280/Netra 1280\) Systems](#)
- [Features Introduced in the 5.19.0 Release](#)
- [General Information](#)
- [Known Limitations for Sun Fire Entry-Level Midrange Systems](#)

Firmware Documentation for Sun Fire Entry-Level Midrange (E2900/V1280/Netra 1280) Systems

- *Sun Fire Entry-Level Midrange System Administration Guide* (part number 819-1269-10)
- *Sun Fire Entry-Level Midrange System Controller Command Reference Manual* (part number 819-1268-10)
- *Sun Fire Entry-Level Midrange System Firmware 5.19.0 Release Notes* (part number 819-1267-10)

Features Introduced in the 5.19.0 Release

This section provides a brief description of the new features in 5.19.0 for Sun Fire entry-level midrange systems.

Supported Board Types

The 5.19.0 release supports the following:

- PCI-X I/O Boards – These boards are identified as PCI-X I/O Board in the `showboards` command output. For details on installing or replacing I/O boards, refer to the *Sun Fire E2900 System Service Manual* (817-4054) or *Sun Fire V1280/Netra 1280 Systems Service Manual* (817-0510), and *Sun Fire E2900 PCI-X I/O Assembly Installation Guide* (819-1842-10).
- UltraSPARC IV+ CPU/Memory boards – For information on upgrading systems with UltraSPARC IV+ CPU/Memory boards, refer to the *Sun Fire E2900/V1280 1.5GHz CPU/Memory Board Upgrade Requirements* (819-3242-10) and the *Sun Fire E2900 System Service Manual* (817-4054) or *Sun Fire V1280/Netra 1280 Systems Service Manual* (817-0510).

Support for Watchdog Timer

The watchdog mechanism detects a system hang, or an application hang or crash, should they occur. The watchdog is a timer that is continually reset by a user application as long as the operating system and user application are running.

On Sun Fire entry-level midrange systems, the watchdog is associated with alarm 3.

For information about the watchdog timer and alarm 3, see the *Sun Fire Entry-Level Midrange System Administration Guide*.

POST Performance Improvements

5.19.0 firmware reduces the time required to perform a power-on self-test (POST) operation. Code optimizations as well as the use of parallel testing algorithms have enabled a significant decrease in test time while maintaining the same fault diagnosis coverage as that provided with earlier versions of the firmware.

When comparing the 5.19.0 release to the 5.18.0 release, Sun has measured reductions in POST elapsed time of between 20 and 70 percent. Your experience may differ, depending on your system's configuration and the settings of firmware configuration parameters such as `diag-level` and `verbosity-level`. The largest improvements can be seen on systems with UltraSPARC IV or UltraSPARC IV+ processors, containing substantial amounts of memory, and running with `diag-level` values of `mem1` or `mem2`.

Availability Features Enhanced

The 5.19.0 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 Changed for 5.19.0

The following SC command was added in 5.19.0:

- `forcepci` – Sets the default PCI mode on PCI-X boards.
- `showalarm` – Added alarm 3 argument.
- `setalarm` – Added alarm 3 argument.

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

General Information

Requirements for Entry-Level Midrange Systems

Sun Fire E2900 systems require 5.17.0 firmware or greater and the Solaris 8 2/04 or Solaris 9 4/04 operating environments as the minimum Solaris releases. Sun Fire E2900 systems and Sun Fire V1280 systems with UltraSPARC IV+ CPU/Memory

boards or PCI-X I/O boards (or both) require 5.19.0 firmware and compatible releases of the Solaris 10 or Solaris 9 operating system (when available) as the minimum Solaris releases.

TABLE 1 Minimum Firmware and Software Versions Supported on Entry-Level Midrange Systems

Sun Fire E2900 Systems	Sun Fire V1280/Netra 1280 Systems	Solaris 8 OS	Solaris 9 OS
5.17.0 firmware	5.17.0 firmware	Solaris 8 2/04	Solaris 9 4/04
	5.13.001x firmware	Solaris 8 2/02	Solaris 9 4/03

Certain hardware components require minimum firmware revisions in midrange entry-level systems, as follows:

- UltraSPARC IV CPU/Memory boards require 5.17.0 firmware or greater.
- UltraSPARC IV+ CPU/Memory boards require 5.19.0 firmware or greater.

Note – Entry-Level midrange systems with SC V2s (but without UltraSPARC IV CPU/Memory boards) can be downgraded from 5.17.0 (or greater) to 5.13.001x firmware releases, but note that those earlier releases will not support features introduced in 5.17.0, 5.18.0, or 5.19.0.

Firmware Upgrade and Downgrade

Instructions for updating firmware (upgrade and downgrade) are provided in the *Sun Fire Entry-Level Midrange System Administration Guide*.

Known Limitations for Sun Fire Entry-Level Midrange Systems

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

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

If you change the connection type after updating firmware on entry-level midrange systems from 5.17.x, 5.18.x, or 5.19.x to 5.13.x, then the new connection type (selected in 5.13.x) is not guaranteed once you update firmware back to 5.17.x, 5.18.x, or 5.19.x. If you subsequently update the firmware to 5.17.x, 5.18.x, or 5.19.x from 5.13.x, the original connection type that you had in 5.17.x, 5.18.x, or 5.19.x before the change to 5.13.x will be restored.

Workaround: Set the connection type explicitly (using the `setupnetwork` command) to ensure system security.

Board State Becomes Incorrect After `setkeyswitch` or `testboard` Operations (BugID 5066326)

After a domain panic occurs or when a domain encounters errors, output from a subsequent `setkeyswitch` or `testboard` operation will show that the board processors have an Unknown status.

Workaround: Reboot the system controller.

`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 Solaris software or by the OpenBoot PROM faster than the system controller can write it to the console.

Workaround: None.

Power Failure May Corrupt SEEPROM Contents (BugID 5093450)

If a power failure and SC reboot occurs during an add segment operation, one or more SEEPROM segments may become corrupted upon a reboot. However, even though these error messages display, the availability of the domains is not affected.

Workaround: None.

Message "(tSshConn): memPartAlloc: block too big" Shown on SC Console (BugID 6279689, 6229067)

If multiple users attempt to connect to the SC using SSH connections in parallel, the SC can panic, displaying the following message on the SC console:

```
shostname:A> 0x3c27b78 (tSshConn): memPartAlloc: block too big -  
40947 in partition 0x3b8c7d0.  
[0x3c27b78] xrealloc: out of memory (new_size 40947 bytes)
```

Workaround: None.

showcomponent States disabled While enablecomponent States enabled (BugID 6284667)

When used with an abbreviated form for the name of a component, the enablecomponent command sometimes reports component status incorrectly. For example:

```
lom> showcomp ib6
```

Component	Status	Pending	POST	Description
-----	-----	-----	----	-----
/N0/IB6/P0	enabled	-	untest	IO Controller 0
/N0/IB6/P1	disabled	-	untest	IO Controller 1
/N0/IB6/P0/B0	enabled	-	untest	100/66/33MHz. PCIX/EPCI/PCI Bus
/N0/IB6/P0/B1	enabled	-	untest	33MHz. PCI Bus
/N0/IB6/P1/B0	disabled	-	untest	100/66/33MHz. PCIX/EPCI/PCI Bus
/N0/IB6/P1/B1	disabled	-	untest	100/66/33MHz. PCIX/EPCI/PCI Bus
/N0/IB6/P0/B1/C0	enabled	-	untest	33MHz. 3.3V Short PCI card
/N0/IB6/P0/B1/C1	enabled	-	untest	33MHz. 3.3V Short PCI card
/N0/IB6/P0/B0/C2	enabled	-	untest	100/66/33MHz. 3.3V Long/Short
PCIX/EPCI/PCI card				
/N0/IB6/P0/B0/C3	enabled	-	untest	100/66/33MHz. 3.3V Long/Short
PCIX/EPCI/PCI card				
/N0/IB6/P1/B1/C4	disabled	-	untest	100/66/33MHz. 3.3V Long/Short
PCIX/EPCI/PCI card				
/N0/IB6/P1/B1/C5	disabled	-	untest	100/66/33MHz. 3.3V Long/Short
PCIX/EPCI/PCI card				
/N0/IB6/P1/B0/C6	disabled	-	untest	100/66/33MHz. 3.3V Long/Short
PCIX/EPCI/PCI card				
/N0/IB6/P1/B0/C7	disabled	-	untest	100/66/33MHz. 3.3V Long/Short
PCIX/EPCI/PCI card				

```
lom> enablecomp ib6/c4 ib6/c5 ib6/c6 ib6/c7
```

```
ib6/c4: is already enabled.
```

```
ib6/c5: is already enabled.
```

```
ib6/c6: is already enabled.
```

```
ib6/c7: is already enabled.
```

Workaround: Use a fully specified component name, such as /N0/IB6/P1/B1/C4.

Incorrect Message Output, When poweron Returns Failure (BugID 6287631)

Use of some unsupported components can generate misleading messages, such as *component: does not have grid power*. For example:

```
lom> poweroff all  
...  
/N0/IB6: does not have grid power  
/N0/IB7: does not have grid power  
/N0/IB8: does not have grid power  
/N0/IB9: does not have grid power  
...
```

Workaround: Verify that all components in the specified IB are supported.

RTOS: SC Does not Respond to ping but tNetTask Appears To Be Running (BugID 6287893)

Under some circumstances Ethernet connections to the system controller can hang. However, the serial connection continues to supply access.

Workaround: Reboot the system controller.