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Sun Fire™ V60x and V65x BIOS and Firmware Update ReadMe

For BIOS Release 8.0 (v1191), BMC v1.19,
FRU/SDR v5.5.5

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Sun Fire V60x and V65x Server BIOS and Firmware Update ReadMe

This document describes the updates and installation details for the current BIOS and firmware releases for the Sun Fire™ V60x and V65x servers.

This document contains the following sections:

BIOS Production Release 8.0 (v1191) Release Notes

This section describes the updates to the BIOS production release 8.0 (v1191).

Sign On Message ID

This is the message that you will see when you boot up the machine with the release 8.0 v1191 BIOS:

```
BIOS version SWV25.86B.1191.P08
BMC Firmware Revision: [0119]
SDR Revision: [5.5.5]
```

New Features

These new features are contained in BIOS release 8.0 v1191:

- Added support for the M0-stepping processors (2.2GHz, 2.4GHz, 2.6GHz, 2.8GHz, 3.06GHz, and 3.2GHz).

- Added the latest Adaptec SCSI Option ROM version 41003S2.

- Added the latest microcode updates for the D1- and C1-stepping processors.

Bugs Fixed in This Release

Bugs fixed between release 5.0 (v1175) and the production 8.0 BIOS (v1191) release:

- Corrected an MPS Table issue by freeing up additional space in F000. This was keeping the MPS Table from loading when more thanfour PCI cards were installed in the SR2300 Riser cards.

- Corrected an issue with POST hangs that occurred while rebooting multiple times with Intel® Xeon™ 3.2GHz 1M and 3.06GHz 1M processors.

- Corrected an issue where the BIOS logo screen was incorrectly displayed when many IDE/USB devices were installed (the Option ROM initialization was displayed and the progress bar overwrote text on the screen).

- Corrected an issue where the incorrect SMBIOS Cache Reference was used when L3 Cache was absent.

- Corrected an issue where Sony® SDX-420C & SDX-520C ATAPI tape drives could not work in U-DMA mode.

- Corrected an issue where the following POST error was reported when mixing D1- and M0-stepping processors: `8193:Processor stepping are different.` Mixing D1- and M0-stepping processors is now supported.

- Corrected an issue where the PCI slots on 1U systems returned the number of slots in the system, rather than the value returnedby PCI BIOS function: B1h, sub-function 0Eh (Get PCI IRQ routing option).

- Corrected an issue where DIMM errors occurred during POST with Samsung 1GB DIMMs during AC- or DC-cycle testing.

Known Problems

Known problems with BIOS release 8.0 v1191 are listed here:

- KVM unit issue: Some KVM (keyboard-video-mouse) units cause the system to hang during POST, at checkpoint 78h.
- BIOS update issue: The system will intermittently fail to update the BIOS. If this occurs, remove power from the system for at least 30 seconds. This will reset the system and allow for a successful BIOS update on the next attempt.

Platform and Firmware Supported for BIOS Release 8.0 v1191

- All Sun Fire V60x and Sun Fire V65x systems
- FRU/SDR version 5.5.5
- BMC version 1.19
- The following Intel Xeon™ processor Microcode update versions:

CPU ID	Microcode Update ID
F24	1F
F25	14
F27	38
F29	18

BMC Version 1.19 Production Release Notes

This section describes the updates to the BMC production release, version 1.19.

BMC Core Version Information

Firmware Version: 1.19

Bootblock Version: 0.15

BMC version 1.19 (Bootblock version 0.15), April 22, 2003

Bootblock checksum: 1ABBh   Opcode checksum: 3430h

New Features

No new features are included in this release.

Bugs Fixed in This Release

The following bugs have been fixed with the release of BMC v1.19:

- An issue with the watchdog timer expiration not causing an LED indication on the Telco Alarm Panel has been corrected.
- BMC 1.18 extended the SMI timeout sensor timeout value from 10 to 90 seconds. However, under certain circumstances, the BMC would still use a 10 second timeout. BMC 1.19 corrects this.
- Previous BMC versions did not parse Telco-specific OEM SDR records correctly. BMC 1.19 corrects this.
- In previous BMC versions, the IPMI Get FRU Info command returns the size of the memory device used for FRU storage, rather than the size allocated for FRU data. BMC 1.19 corrects this. Note that the effects of this are only visible on the Telco DC power supply FRU.
- In previous BMC versions, if a DIMM failed, the baseboard DIMM indicator LED would light, but the front panel LED would not indicate that the system was in a degraded state. BMC 1.19 corrects this.

- In previous BMC versions, once the BMC boosted the fans for a fan failure, and the fan was fixed, the BMC would leave the fans boosted after receiving an IPMI Rearm Sensor command. BMC 1.19 corrects this.

Platform and Firmware Supported for BMC v1.19

The following hardware and firmware is supported with BMC version 1.19:

- All Sun Fire V60x and V65x systems
- FRU/SDR version 5.5.5
- BIOS release 8.0 v1191

FRU/SDR Version 5.5.5 Release Notes

This section describes the updates for the FRU/SDR version 5.5.5 release.

New Features

These new features are contained in FU/SDR version 5.5.5:

- For 1U systems, the front-panel ambient temperature thresholds have been raised from 40°C and 45°C to 45°C and 50°C.
- For 1U systems, the fan control now always uses the 2Gb memory speed table.
- For 1U systems, the speed trip point has been lowered from 62°C to 58°C.

Bugs Fixed in This Release

No new bugs were fixed in the version 5.5.5 release:

Platform and Firmware and Supported for FRU/SDR v5.5.5

- All Sun Fire V60x and V65x systems
- BMC firmware version 1.19
- BIOS release 8.0 v1191

Download and Update the BIOS and Firmware

This section contains instructions on downloading and updating the BIOS and firmware for the Sun Fire V60x and 65x servers.

In order to perform the update procedures, you will need the following:

- A Windows, Linux, or Solaris™ x86 system onto which you download the updates from the download site
- Three formatted 1.44MB floppy diskettes
- The Sun Fire V60x or V65x system onto which you are installing the BIOS and firmware updates

To perfom the updates, first use the appropriate section for the platform you will use to download the software:

- "Create BIOS and Firmware Update Diskettes (Windows Users)" on page 7
- "Create BIOS and Firmware Update Diskettes (Linux Users)" on page 8
- "Create BIOS and Firmware Update Diskettes (Solaris X86 Users)" on page 9

Then complete the instructions for updating the BIOS and firmware in "Update the Firmware and BIOS" on page 11.

Note – Please follow the update instructions below carefully and precisely.

Create BIOS and Firmware Update Diskettes (Windows Users)

To download the BIOS and firmware updates to diskettes using a Windows system:

1. **Download the Sun Fire V60x and V65x FRU/SDR self-extracting file (`FSDR555.EXE`) onto a Windows system.**

2. **Insert a formatted 1.44MB diskette into drive A.**

3. **Double click on the `FSDR555.EXE` file and follow the instructions on the screen.**

   The file will automatically extract the update onto the floppy drive.

4. **After the extraction has completed, remove and label the diskette** *Sun Fire V60/V65 FRU/SDR version 5.5.5.*

5. **Download the Sun Fire V60x and V65x BMC self-extracting file (`BMC119.EXE`) onto the Windows system.**

6. **Insert a formatted 1.44MB diskette into drive A.**

7. **Double click on the `BMC119.EXE` file and follow the instructions on the screen.**

   The file will automatically extract the update onto the floppy drive.

8. **After extraction is completed, remove and label the diskette** *Sun Fire V60/V65 BMC version 1.19.*

9. **Download the Sun Fire V60x and V65x BIOS self extracting file (`BIOS1191.EXE`) onto a Windows system.**

10. **Insert a formatted 1.44MB diskette into drive A.**

11. **Double click on the `BIOS1191.EXE` file and follow the instructions on the screen.**

    The file will automatically extract the update onto the floppy drive.

12. **After the extraction is completed, remove and label the diskette** *Sun Fire V60/V65 BIOS version 1191.*

13. **Proceed to "Update the Firmware and BIOS" on page 11.**

Create BIOS and Firmware Update Diskettes (Linux Users)

To download the BIOS and firmware updates to diskettes using a Linux system:

1. **Download the Sun Fire V60x and V65x FRU/SDR image file (**`fsdr555.img`**) and the md5 file (**`fsdr555.md5`**) onto a Linux system.**

2. **Verify that the** `md5sum` **of the file matches the** `fsdr555.md5` **file contents:**

   a. **At the Linux command prompt, type:**

      `#`**`md5sum fsdr555.img`**

      `#`**`cat fsdr555.md5`**

   b. **Compare the output of the** `md5sum` **command with the contents of the** `fsdr555.md5` **file to make sure that they match.**

3. **Insert a formatted 1.44MB diskette into drive A.**

4. **At the Linux command prompt, type:**

   `#` **`dd if=fsdr555.img of=/dev/fd0`**

   The file will automatically extract the update onto the floppy drive.

5. **The extraction is complete, remove and label the diskette** *Sun Fire V60/V65 FRU/SDR version 5.5.5.*

6. **Download the Sun Fire V60x and V65x BMC image file (**`bmc119.img`**) and the md5 file (**`bmc119.md5`**) onto a Linux system.**

7. **Verify that the** `md5sum` **of the file matches the** `bmc119.md5` **file contents:**

   a. **At the Linux command prompt, type:**

      `#` **`md5sum bmc119.img`**

      `#` **`cat bmc119.md5`**

   b. **Compare the output of the** `md5sum` **command with the contents of** `bmc119.md5` **to make sure that they match.**

8. **Insert a formatted 1.44MB diskette into drive A.**

9. **At the Linux command prompt, type:**

   `#` **`dd if=bmc119.img of=/dev/fd0`**

   The file will automatically extract the update onto the floppy drive.

10. **After the extraction is complete, remove and label the diskette** *Sun Fire V60/V65 BMC version 1.19.*

11. **Download the Sun Fire V60x and V65x BIOS image file (**`bios1191.img`**) and the md5 file (**`bios1191.md5`**) onto a Linux system.**

12. **Verify that the** `md5sum` **of the file matches the** `bios1191.md5` **file contents:**

    a. **At the Linux prompt, type:**

       # `md5sum bios1191.img`

       # `cat bios1191.md5`

    b. **Compare the output of the** `md5sum` **command with the contents of** `bios1191.md5` **to make sure that they match.**

13. **Insert a formatted 1.44MB diskette into drive A.**

14. **At the Linux command prompt, type:**

    # `dd if=bios1191.img of=/dev/fd0`

    The file will automatically extract the update onto the floppy drive.

15. **After the extraction is complete, remove and label the diskette** *Sun Fire V60/V65 BIOS 1191.*

16. **Proceed to "Update the Firmware and BIOS" on page 11.**

Create BIOS and Firmware Update Diskettes (Solaris X86 Users)

To download the BIOS and firmware updates to diskettes using a Solaris™ x86 system:

1. **Log into the Solaris system as superuser.**

2. **Turn off the** `volmgt` **daemon by typing:**

   # `/etc/init.d/volmgt stop`

3. **Download the Sun Fire V60x and V65x FRU/SDR image file (**`fsdr555.img`**) and the sum file (**`fsdr555.sum`**) onto the Solaris system.**

4. **Verify that the** `.sum` **file matches the** `fsdr555.img` **file contents:**

   a. **At the Solaris prompt, type:**

      # `sum fsdr555.img`

      # `cat fsdr555.sum`

   b. **Compare the output of the** `sum` **command with the contents of the** `fsdr555.sum` **file to make sure that they match.**

5. **Place a formatted 1.44MB diskette into drive A.**

6. **At the Solaris command prompt, type:**

   `# dd if=fsr555.img of=/dev/fd0`

7. **The file will automatically extract the update onto the floppy drive.**

8. **The extraction is complete, remove and label the diskette *Sun Fire V60/V65 FRU/SDR version 5.5.5.***

9. **Download the Sun Fire V60x and V65x BMC image file (**`bmc119.img`**) and the sum file (**`bmc119.sum`**) onto the Solaris system.**

10. **Verify that the** `.sum` **file matches the** `bmc119.img` **file contents:**

   a. **At the Solaris prompt, type:**
      `# sum bmc119.img`
      `# cat bmc119.sum`

   b. **Compare the output of the** `sum` **command with the contents of the** `bmc119.sum` **file to make sure that they match.**

11. **Insert a formatted 1.44MB diskette into drive A.**

12. **At the Solaris command prompt, type:**

   `# dd if=bmc119.img of=/dev/fd0`

   The file automatically extracts the update onto the floppy drive.

13. **After the extraction is complete, remove and label the diskette *Sun Fire V60/V65 BMC version 1.19.***

14. **Download the Sun Fire V60x and V65x BIOS image file (**`bios1191.img`**) and the sum file (**`bios1191.sum`**) onto the Solaris system.**

15. **Verify that the** `.sum` **file matches the** `bios1191.img` **file contents:**

   a. **At the Solaris prompt, type:**
      `# sum bios1191.img`
      `# cat bios1191.sum`

   b. **Compare the output of the** `sum` **command with the contents of the** `bios1191.sum` **file to make sure that they match.**

16. **Insert a formatted 1.44MB diskette into drive A.**

17. **At the Solaris command prompt, type:**

    # **dd if=bios1191.img of=/dev/fd0**

    The file automatically extracts the update onto the floppy drive.

18. **After the extraction is complete, remove and label the diskette** *Sun Fire V60/V65 BIOS 1191.*

19. **Turn on the** volmgt **daemon by typing:**

    # **/etc/init.d/volmgt start**

20. **Proceed to "Update the Firmware and BIOS" on page 11.**

Update the Firmware and BIOS

1. **Power off or reboot the Sun Fire V60x or V65x server system.**

2. **Insert the FRU/SDR update diskette into the server and power on the system.**

   The system automatically boots to the FRU/SDR diskette and a banner displays identifying the platform and software.

3. **After a menu of options appears that prompts you to select the function you want to perform, Select Option 1, Update FRUs and the SDR repository.**

4. **You are prompted to indicate whether you want to update serial number and asset tag information.**
   - Select N for No if you don't want to update this information (the existing serial number and asset tag will remain unchanged).
   - Select Y for Yes if you want to update any of this information. Follow the prompts to continue the update.

   The FRU/SDR update continues and the system returns to the command prompt when completed.

5. **Power off or reboot the Sun Fire V60x or V60x server.**

6. **Insert the BMC update diskette into the server and power on the system.**

   The system automatically boots to the BMC update diskette and a banner displays identifying the platform and software.

7. **Press any key to proceed with the update when prompted.**

   The update continues and the system returns to the command prompt when done.

8. **Power off or reboot the Sun Fire V60x or V65x server.**

9. **Insert the BIOS update diskette into the server and power on the system.**

   The system automatically boots to the BIOS update diskette and a banner displays identifying the platform and software.

10. **Press any key to proceed with the update when prompted.**

    The update continues and the system returns to the command prompt when completed, then it automatically reboots.

    Note – Watch the system carefully so that you are aware of when the update is complete and the system begins to automatically reboot. As described in the next step, you must remove the floppy diskette from drive A before the system reboots.

    ---

11. **When the update is completed, remove the floppy diskette from drive A.**

    The system will automatically reboot when the update is completed.

12. **Press the F2 key to select SETUP as soon as the option appears on the screen.**

13. **Once you are in the main page of the SETUP menu, use the arrow key to select the Server menu.**

14. **In the Server screen, select the System Management option, then press Enter.**

    The newly updated BIOS and other firmware revisions are displayed as shown here:

    ```
    BIOS version: [SWV25.86B.1191.P08]
    BMC Firmware Revision: [0119]
    SDR Revision: [5.5.5]
    ```

15. **If the BIOS and firmware revisions display correctly, proceed to Step 16. If any of the firmware components do not show the correct revision, do the following:**

    a. **Make a note of the incorrect revisions.**

    b. **Turn off the server.**

    c. **Unplug the AC power cord for about 30 seconds and then plug it back in.**

    d. **Power on the server.**

    e. **Return to the beginning of this section and reinstall the updates for the BIOS or firmware components that do not display the correct revision.**

16. **Press the F9 key to select default settings.**

17. **Select Yes and press the Enter key.**

18. **Press the F10 key to select Save and Exit.**

19. **Select Yes and press the Enter key.**

20. **The system automatically reboots.**

    The BIOS and firmware update procedures are completed.