



Late-Breaking News

Note: Read this information before configuring the Intel® Carrier Grade Server TIGW1U. Also be sure to check the support website at <http://www.intel.com/support/telecom/computeboards/tigw1u/> for further late-breaking news, general information, and downloadable BIOS files.

New BIOS Version

New versions of the BIOS for S5000 series server boards have been developed since the Intel® Carrier Grade Server TIGW1U was released to production (BIOS version R0074). Some of these new BIOS versions were developed to address issues of significance to users of TIGW1U servers.

Information on the specific capabilities and issues resolved for each BIOS version is available on the Intel support website at <http://www.intel.com/support/telecom/computeboards/tigw1u/>

It is imperative that you download and install an appropriate updated BIOS version before deploying your TIGW1U server if any of the following conditions apply:

- You have installed the hardware RAID key and will be using hardware RAID.
- You will be using external SAS drives via the rear-panel connector.
- You are using the latest version (G stepping) versions of the Dual-Core Intel® Xeon® Processor 5100 series.

The following paragraphs provide additional details about these three issues.

Hardware RAID Support: With the hardware RAID key device installed, during startup the BIOS provides a preset SSID number to the SAS controller device that is located on the SAS Front Panel board. With BIOS version R0074 and earlier, the BIOS sets an incorrect SSID value. If hardware RAID is used with the incorrect value set, there is the possibility of data loss when BIOS is later updated to a version that sets the correct SSID number.

Caution: Configuring an Intel® Carrier Grade Server TIGW1U with BIOS version R0074 or earlier for hardware RAID creates the potential for data loss when a later BIOS update is performed. To avoid this potential data loss, it is imperative that an appropriate updated BIOS version be installed prior to configuring the server for hardware RAID.

External SAS Drives: Intel® Carrier Grade Server TIGW1U systems with BIOS version R0074 or earlier may exhibit unstable operation of the external SAS drive system, which can cause drive faults or data errors. Appropriate updated BIOS versions contain updated programming for the repeater device that drives signals to the external SAS connector to ensure stable operation of external hard drives.

G-Stepping Processors: An appropriate updated BIOS version is required to provide updated microcode to support the upcoming, G-stepping version of the Dual-Core Intel® Xeon® Processor 5100 series as well as existing steppings of the processor. The factory-installed BIOS (R0074) supports all processor steppings that have been publicly released as of the server's formal release, but does not support the G stepping.



Boot Errors following Battery Interruption

The Intel® Carrier Grade Server TIGW1U enhances availability by maintaining a secondary copy of BIOS and BMC firmware. When the user upgrades the firmware, the system retains the current code in one bank and stores the new code in a second bank. If the upgrade fails, the system automatically falls back to the original code in the redundant bank.

Both copies of BIOS are stored in banks of non-volatile flash memory, and the current bank selection is maintained through normal power interruptions by an on-board battery. If system power is removed and the on-board battery fails or is interrupted for any reason, the circuitry reverts to the default bank, which may contain an older version of BIOS.

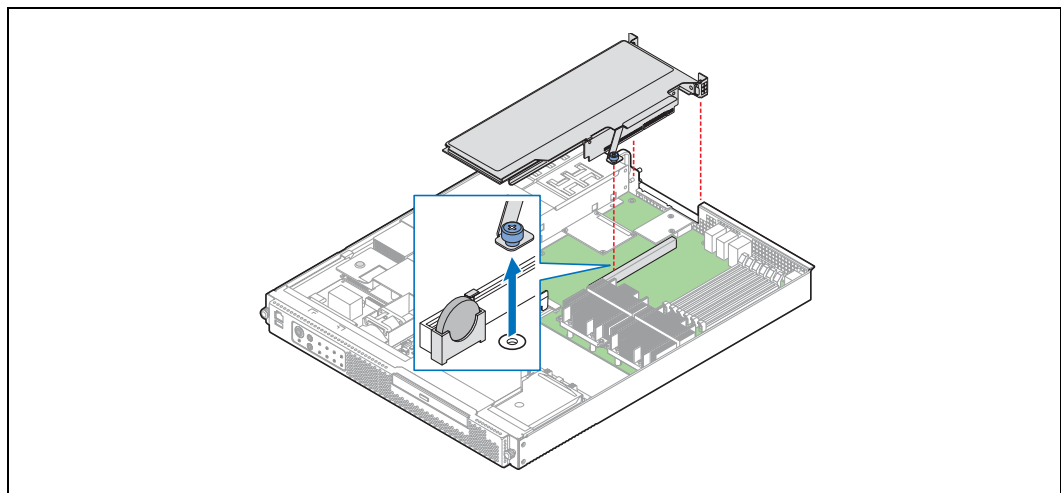
If the banks contain different versions of BIOS, the system may hang in POST during the *first* boot after the battery is restored. (Subsequent boots using the reset button do not hang.) If the system does hang during the first boot, clear the error by selecting Processor Retest mode from the Advanced menu in BIOS Setup.

Note that there are three common causes of battery interruptions:

- Battery failure (dead battery)
- Battery removal or replacement (server maintenance)
- Momentarily shorting the battery when removing or re-installing the PCI riser assembly

To ensure the desired version of BIOS is used after removing or replacing the battery, flash the latest BIOS before removing the battery.

Caution: When removing or installing the riser assembly in an Intel® Carrier Grade Server TIGW1U take particular care not to touch the battery on the server board with the retaining screw bracket or any part of the riser assembly. Touching the battery with a metallic object can reset the bank selection circuitry and possibly cause the next boot to hang during POST.



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