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**TECHNICAL BULLETIN 00001**

Subject: Memory count up missing 1/2Gbyte  
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Location: Celestica - Salem NH  
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Celestica has received reports of system BIOS not counting the full amount of memory when 4GBytes is populated in A2210 and A8440 systems. This issue results in the appearance that up to 0.5GB of installed memory is unaccounted for in the system during certain diagnostic and benchmark activity.

Celestica has investigated this issue extensively and determined that the unaccounted memory is reserved for PCI Memory Mapped I/O (MMIO) address space. The memory is not in fact missing, and this issue does not affect OS operation or performance.

Although Celestica's A2210 and A8440 BIOS could be rewritten to resolve this issue by allowing for memory remapping, this would disable key features such as bank interleaving, DRAM background ECC scrubbing and node interleaving (a feature of K8 multiprocessing). Celestica's opinion is that these features are critical to server reliability and performance, therefore we have no plan to rewrite system BIOS for the A2210 and A8440.

In summary, this issue does not affect system operation or performance. Since reliability and performance take precedence, Celestica will take no action beyond this notification.