

intel® Technical Advisory

TA-251-1

5200 NE Elam Young Parkway
Hillsboro, OR 97124

March 2, 2000

L440GX+ server management functionality at risk when updating the Baseboard Management Controller (BMC) firmware

Information in this document is provided in connection with Intel products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, life saving, or life sustaining applications. Intel may make changes to specifications and product descriptions at any time, without notice. The L440GX+ may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Products Affected

BOXL440GX, BOXL440GXC, LWBB, LWBBS, SLWBRF5, ISP2150, PBA# 724293-5xx and earlier, AA# 721242-011 and earlier

Description

BMC functionality will be lost at an indeterminate time after performing a flash update of the Baseboard Management Controller (BMC) firmware on the L440GX+ server board.

With the loss of BMC functionality, all server management functions are lost. These include: the ability to power down the system from the Astor2 or Columbus III front panel, the system will no longer log system events in the System Event Log, server management software will not be able to communicate to the on-board sensors, Emergency Management Port (EMP) functionality, and Platform Event Paging (PEP) functionality.

Root Cause

Intel has determined that the method used to update the flash part is causing a degradation of the information retention properties of the flash part. This is causing corruption to the BMC firmware resulting in eventual loss of BMC functionality. The specific time at which the firmware becomes corrupted cannot be determined. A BMC failure may occur immediately after updating the firmware, or it may occur at some time after the update.

L440GX+ based servers with the original BMC firmware, as shipped from Intel's factory, are not affected. Systems that have been updated from their original Intel factory configuration, upto and including BMC firmware 1.07, are affected.

Corrective Action

To fully address this issue, Intel has determined an enhanced method for flashing the BMC firmware to the flash device. The new flash process has been implemented in a new flash update utility, FWUPDATE rev. 2.0. The 2.0 flash utility is now available and must be used to update the BMC firmware to address this issue. The new flash utility will only be compatible with L440GX+ BMC firmware revisions 1.08 and later. Revision 2.0 of the flash utility is NOT backwards compatible to support L440GX+ BMC firmware revisions before 1.08. The revision 2.0 FWUPDATE utility and revision 1.08 L440GX+ BMC firmware will be posted to Intel's Support web site <http://support.intel.com> and to its secure web sites.

intel[®] Technical Advisory

TA-251-1

5200 NE Elam Young Parkway
Hillsboro, OR 97124

March 2, 2000

Intel Recommendations

If the BMC firmware on an L440GX+ based system has been updated from its original Intel factory configuration, Intel recommends updating the BMC firmware to revision 1.08 or later using the FWUPDATE utility revision 2.0 or later.

Systems that have not had the BMC firmware updated from the original Intel factory configuration do not need to be updated.

System integrators that currently have the original Intel factory configuration but wish to update to a later BMC firmware revision should do so using the 2.0 FWUPDATE utility or later, with the L440GX+ BMC firmware revision 1.08 or later.

Please contact your Intel Sales Representative if you require more specific information about this issue.

Server Products Division (SPD)
Intel Corporation