Linux Kernel Issue with Systems Using AGP Graphics

Application Note

Description

Some older Linux kernels have a conflicting cache attribute bug that is exposed by advanced speculative caching in newer AMD Athlon™ and AMD Duron™ family processors including AMD Athlon XP, AMD Athlon 4, AMD Athlon MP processors, and AMD Duron processors model 6 and above. This kernel bug usually shows up under heavy use of accelerated 3D graphics with an AGP Graphics card. The symptom of this bug is a system hang on the display of AGP graphics.

Only those Linux systems that use AGP graphics cards are potentially affected by this bug. Systems not using AGP graphics cards are unaffected by this issue.

Solution

A permanent fix for the Linux kernel is planned. Until the permanent fix is available, Linux kernel 2.4.19 incorporates a bug-fix that effectively eliminates this problem. The fix is also available from individual vendors at each of the following Linux distribution Web sites:

- Red Hat Linux < http://www.redhat.com/ >
- SuSE Linux < http://www.suse.com/ >
- Caldera OpenLinux < http://www.caldera.com/ >
- Turbolinux < http://www.turbolinux.com/ >
- Mandrake Linux < http://www.mandrakesoft.com/ >

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