

bootup and cpufreq driver support for ZFx86 processor

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2004-03/5939.html>

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Date: 03/24/04

Date: Wed, 24 Mar 2004 23:21:37 +0900

To: Alexey Shinkin <alex@elesy.tusur.ru>, Thaly Palanisamy <thalaps@gerg.tamu.edu>

Hi, Alex and Thaly,

I wrote Cyrix/NatSemi MediaGX setup/driver in linux.
I can get ZFx86 CPU datasheet, and look at it,
it seems similar to MediaGX, I think .
But datasheets is not well informative.

I'm just start trying the CPUFreq driver
and setup cpu codes.

Can you wait and try testing my code?
And can you send me some informations?

I want results of 'lspci -v', dmesg of bootup, 'cat /proc/cpuinfo'.
I need a 'vendor id' and a 'cpuid' of that cpu which is not on a datasheet.

At Wed, 18 Feb 2004 10:42:16 +0600,
Alexey Shinkin wrote in LKML:

>
> hi!
>
> I am playing with Linux 2.6.0 on a PC-104 board with
> ZFx86 CPU - it is Cyrix core based 486. Kernel 2.4.18 detects the CPU
> as Cyrix Cx486DX2, but 2.6.0 says it is 486.
>
> I looked through /arch/i386/kernel/setup.c in 2.4.18 sources,
> /arch/i386/kernel/cpu/common.c in 2.6.0 sources and found the
> identify_cpu() function that seems to be working a bit incorrectly in
> 2.6.0.
>
> In 2.4.18 it checks if the CPU able to execute CPUID, if cannot - the
> id_and_try_enable_cpuid() is called, which identifies old Cyrixes and
> tries to turn on CPUID on some of them. Even if the CPU is not
> CPUID-capable, Cyrix is detected by test_cyrix_52div(), at least, the
> function fills x86_vendor & x86_vendorid fields in for Cyrixes. The

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> *fields are used later for vendor-specific initialization.*
>
> *In 2.6.0 identify_cpu() does not check CUID-uncapable CPUs by*
> *test_cyrix_52div() and*
> *doesn't try to enable CUID on them, so, further generic_identify()*
> *considers my CPU as usual 486, doesn't find vendor in get_cpu_vendor*
> *and after all default CPU init procedure is performed instead of*
> *vendor-specific.*
>
> *I understand that now people are more focused on newest P4's,*
> *Athlons64 etc, but I think that support for old CPUs also shouldn't be*
> *broken...*
>
>
> --
> *Best regards,*
> *Alex Shinkin*
>

At Wed, 25 Feb 2004 14:33:18 -0600,
Thaly Palanisamy wrote on CPUFreq-devel ML:

>
> *Hello,*
> *Does the cpufreq driver support the Zfx86 processor runnix Linux (2.4.21)?*
> *The ZFx86 is on a PC104 single board computer(Prometheus from Diamond*
> *Systems Corporation- DSC). I tried the DSC forum, but no one was aware of.*
> *I need to slow down the Zfx currently running at 100 MHz to save power.*
> *Can anybody help me?*
> *Thanks,*
> *Thaly*
>
> --
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