Re: IBM xSeries 336 dual Xeon hangs on boot when APIC enabled

Source: http://unix.derkeiler.com/Mailing−Lists/FreeBSD/stable/2006−08/msg00260.html

- *From*: John Baldwin <jhb@xxxxxxxxxxx>
- *Date*: Tue, 15 Aug 2006 08:03:25 −0400

On Tuesday 15 August 2006 05:25, Arjan van Leeuwen wrote:

> 2006/8/14, John Baldwin <jhb@xxxxxxxxxxx>:
>
> > On Monday 14 August 2006 04:45, Arjan van Leeuwen wrote:
> >
> > > 2006/8/13, Michael Landin Hostbaek
> > > <mich@xxxxxxxxxxx>:
> > >
> > > > Arjan van Leeuwen (avleeuwen) writes:
> > > >
> > > > > I'm trying to boot FreeBSD
> > > > > 6.1−RELEASE/amd64 on
> > > > > an IBM xSeries 336
> > > >
> > > > machine
> > > >
> > > > > with dual Xeons 3.2GHz
> > > > > installed.
> > > > >
> > > > > The installation was
> > > > > successful, but
> > > > > if I try to boot the SMP
> > > > > kernel, it hangs after
> > > > > detection of SCSI
> > >
> > > and
> > >
> > > > ATA
> > > >
> > > > > devices (possibly when
> > > > > doing the initialization of
> > > > > the mpt0 RAID
> > > >
> > > > controller,

> > or when it tries to start the
> > second CPU?).
>
> I've just had a similar problem with an IBM
> xSeries 232 − it would not
> boot with apic enabled.. I chased the
> problem down to the network
> adapter (fxp) − and when disabling the
> planar ethernet in BIOS it

would

> boot with SMP.

Yes! Indeed, the system boots perfectly well if I disable both network
adapters (bge, see
dmesg.boot
posted earlier). However, I need at least one functioning network

adapter...

I managed to get both NIC and SMP working by disabling a bunch of stuff

> in the BIOS, fx both serial ports and also the
> floppy drive.

... and this doesn't seem to work for me.

So:
1) Why does my system hang if I enable the network adapter?
2) Why does it only hang if APIC is enabled?

Arjan

Compile DDB into your SMP kernel. When it 'hangs', break into ddb and run 'show intrcnt' to see if you are having an interrupt storm.

> I can't break into DDB during the hang, it's not responding. I can do
> it just before the hang, but that doesn't seem very helpful.
>
> Is there another way to force it to break?

If you can't break into DDB then it must be spinning with interrupts
disabled. If you have firewire you can try running kgdb over firwire
to debug it.

−−
John Baldwin