

Re: multiple motherboards

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> ray <pdqxyz@zianet.com> wrote in message news:<3f5bddbe\$1@news.zianet.com>...

> > Suppose I wanted to construct a computer with multiple motherboards as
> > opposed to multiple processors on one board. I'm specifically thinking of
> > several mini-itx boards in one machine. What would be involved and where
> > would I start?

>

Robert E A Harvey wrote:

> I'e built such a device. Each motherboard has 256M of ram, and there
> is a stack of them held up by M4 threaded pillars. I put an
> aluminium plate the same size on the top and added a hard disk and a
> network hub with the plastic case discarded. All of them are joined
> to the network hub using the on-board RJ45 port, and I have a £5
> network card in the top one to connect to the outside world.

>

> I bought some of the PSU plugs from www.farnell.co.uk and made a
> custom wiring loom to run all of them off one 350W PSU. There is a
> small diode (1N4148) in series with each PSU on line, so that if any
> one motherboard tries to turn on the PSU it works and powers all the
> others up as well. When you shut them down the PSU stays on until the
> last motherboard is powered down. The PSU also powers the network
> hub.

>

> The top one boots normally, and then the others boot by NFS using the
> PXE boot built into the bios. They all boot the same tftp image, but
> with different swap files as set up by thier device name which they
> get by DHCP from the master.

>

> At the moment I have toggle switches on the reset lines, so that I can
> get the top one booted before I release the others, but am working on
> a simple buffer board to control the reset lines on the slaves from
> the printer port on the master.

>

> Next trick would be to put a KVM switch in the box too, but havn't
> bothered with that yet.

>

> The box is a cylindrical stainless wastebin with a black pop-up lid.
> I've put some rubber feet under it so that there is a space underneath

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- > *for the cables to come out and the air to get in, and slotted the edge*
- > *of the lid for the air to get out. The only fan is the one in the*
- > *PSU, which is very quiet. I mounted the whole PSU on rubber washers*
- > *(tap washers actually).*
- >
- > *I have to lift the lid to get at the toggle switch array, and may yet*
- > *make a false panel inside with loads of LEDs on it. But I haven't*
- > *bothered yet.*

>

This is fascinating.

What's it good for ?

Perhaps an 'ample' server could be built out of a stack of cheap
CPU mother boards ?

I'm guessing that you have documentation to guide you ?

Such a project could even justify it's own mailing-list.

Is this knowledge 'captured' somewhere ?

== Chris Glur.