

Re: a dozen cpu's on a chip

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- *From:* panteltje@xxxxxxxxxx
 - *Date:* Tue, 13 May 2008 08:05:12 -0700 (PDT)
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On 8 mei, 04:48, John Larkin

<jjlar...@xx> wrote:

<http://www.eetimes.com/news/latest/showArticle.jhtml;jsessionid=CESEX...>

I bet we'll see 256 one of these days.

John

It is of course completely of-topic, but jus tto contribute for test :-) to the noise, I am sure I have seen a 512 core chip several years ago.

The problem is what to do with > 6 cores.
As you al probably know Sony PS3 has a Cell processor with one big and 6? small 'helper' processors.
Now in a multimedia application, or networking, two ways, say signal processsing decryption decoding graphics that will maybe use 4 cores.
It is not easy to slit a program over more then one core.
Even if threaded, it makes not always sense,
I have written threaded programs where some threads use very few resources,
running those on a separate core woul make little sense,
Some multi media stuff uses no threads at all (Linux mplayer IIRC), while others, xine media player for example `_is_ threaded`.
And this is from the POV of embedded.
Now sure, you could run some FPGA synthesize on one core, PCB routing on the other, SPICE on a third.. however how often do you use it at the same time.
So, and I am not even thinking Microsoft, they only have binaries for X86 of their OS, but the software that takes full advantage of so many cores for a `_general purpose_ OS`, has, as far as I know, not been invented yet.
And are sequential cores always the best solution? Not sure, in the above example the decryption could be done faster by FPGA (1 clock) perhaps.

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So, unless they come up with a software solution that makes full use of those cores, perhaps the only other option is to try to up the clock speed, new techniques to reduce power consumption are mentioned here and there.
So how about 10 GHz or 20 GHz clock, would that not make more sense?

So, end of test message,.

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