

Re: a dozen cpu's on a chip

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- *From:* MooseFET <kensmith@xxxxxxxxxx>
 - *Date:* Fri, 9 May 2008 07:42:29 -0700 (PDT)
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On May 8, 8:27 am, John Larkin
<jjlar...@xx> wrote:

On Thu, 8 May 2008 07:42:04 -0700 (PDT), MooseFET <kensm...@xxxxxxxxxx>
wrote:

On May 7, 7:48 pm, 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.

When you get to large numbers of CPUs it seems to make sense to stop making them identical. For servers this would be doubly so. Many of the CPUs won't need to do floating point operations.

Right. Amybe a few cpu's would have serious floating point power, or a few separate fp engines could be assigned to cpu's as needed. Lots of cpu's, doing stuff like file i/o or serial stuff, could be less powerful. I suppose we'll always need special graphics hardware, but just a few of those per chip.

It could go even further. You could have a situation where the "boss" integer only CPU does this:

Dear Mr Floating processor #1: Please go perform the code at the following address.

Hey Byte slinger processor #7: Go make this memory move.

Hey I/O processor #3: go do this work.

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.... etc

Early in the era of the 8086 there was an 8089 which was called a DMA processor even though it really was programmed I/O in its own instruction set. It could do I/O way faster than the 8086. If a CPU is intended to be part of a server, it could have parts like that in it for doing the things needed for fast disk operations.