

Re: a dozen cpu's on a chip

Yes, but would it run faster?

Since it wouldn't spend a lot of time context switching, and since it wouldn't crash and require reboots, and since it wouldn't leak memory

Leaking memory and IO handles has to do with untidy application programmers failing to free resources correctly. It has absolutely nothing to do having separate CPUs. I have even seen a VAX die that way, the last thing on its system console was a failure by the supervisor to open a channel to report that it had run out of IO channels.

and require reboots, and since it wouldn't trash virtual page files, and since everything would keep running (as opposed to everything pausing for 10 seconds now and then), yes, for me I'd come out ahead.

You really should investigate *why* your PCs are so unreliable rather than blathering on about how the world would be all sweetness and light if only Intel would make a 256 core CPU.

XP isn't bad, especially to people whose standards were lowered by '95 and '98. To people who used to run DEC timeshare systems, or who do hard realtime stuff that may not have bugs, it's still pretty bad.

I have worked on plenty of PDP11 and VAX in my time. DEC-10 was kind of cute too. However, the VAX could very occasionally crash even so. The mechanical disk drives were its weakest component.

Remind me. Just how many CPUs did a VAX 11/780 have?
Hint: I know how many a 782 and 784 (exceedingly rare) had.
Google "VAX 784 problems field rework" shows a relevant summary as top hit although the actual page cached and pointed to has been sanitised.
DEC had a lot of bother with the 784 and 785 was a faster single CPU.
Do you begin to see the fallacy of your argument?

It is nothing to do with how many CPUs there are and everything to do with a protected memory OS and process priviledge environment where threads are given only the resources they strictly need to do their job.

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And the ultimately privileged kernel is kept as small as possible. Memory ownership is way more important to system integrity than putting every thread on its own CPU whatever you may think.

Windows is hobbled by the backwards compatibility with badly behaved games and other programs that peek and poke directly at hardware.

If you really hanker after the old VAX environment you could try:

<http://hoffmanlabs.org/openvms/hwvax.shtml>

Hardware emulators exist and hobbyist licences are apparently available.

Blathering? Do you think that computer architectures are perfected, and will never change? Do you think that all the multicore CPU's being introduced will only be used to make things more complex and less reliable?

For $N > 4$ basically yes, unless very special circumstances apply that allow some of the CPUs to be dedicated to specific CPU intensive tasks or the problem has extremely high symmetry or is divisible in some other way that lends itself to spreading the load across many CPUs.

It will simply waste power and silicon to no good end in a general purpose PC. This doesn't mean it won't happen, but it will most likely be done to make some meaningless benchmark run faster.

Sure, pile OS virtualization on top of a heap of the gigabyte dogs we're running now, and use the extra cpu's to run multiple threads of Adobe products.

I use mine to run very CPU intensive things in the background whilst still having more than enough horsepower to do normal work.

On the whole, this newsgroup should be renamed sci.electronics.tradition. It's practically impossible to get anyone to riff on ideas; these guys mostly want to defend current and comfortable practice. I shouldn't complain... I make a lot of money taking business away from people who refuse to think.

Your idea is so bad and misguided as to be risible. If you cannot understand this then there is no point in continuing.

http://www.news.com/2100-1006_3-6119618.html

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<http://blogs.computerworld.com/node/6072>

http://www.efluxmedia.com/news_Tilera_Unveils_64_core_CPU_07885.html

Dvorak has vague inklings as to what's going on:

<http://www.pcmag.com/article2/0,1895,2129596,00.asp>

John

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