Subject: Variable Number Of Cores
Posted by anonzzz on Wed, 08 Feb 2006 10:15:56 GMT
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Strange projects: "PC without a PC CPU" and MAFA:

http://neil.franklin.ch/Projects/FPGA-PC/

http://www.opencores.org/projects.cgi/web/mafa-pc-board/over view

At present there is only single X86 cores+system inside the FPGA CPU. IMO The performance is slow (486/Pentium I).

Perhaps in the future they can create multiple X86 cores+system on the FPGA or multiple architectures (SPARC, 68K etc).

Can this multiple cores on FPGA CPU (more than 20) compete with modern X86 CPU?

Is it possible to combine multiple cores with OpenVZ?

1. At boot there is a single X86 core for running OpenVZ /Hypervizor.

2. The Hypervizor can create multiple X86 Cores+virtual machine on FPGA CPU, depending on applications / number of OS. Perhaps Hypervizor can also create non X86 Cores+System.

3. OpenVZ will start each Cores.

Is this idea possible?

FPGA machine vendors: Starbridge, Nallatech, Annapolis Micro.

Thank you.

Subject: Re: Variable Number Of Cores
Posted by kir on Sun, 12 Feb 2006 01:27:42 GMT
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That is too early to ask, since first developers needs to grasp a hardware, but there's still no hardware.

Speaking of multi-processor systems, OpenVZ should run fine and scale well even on up to 32-way SMP boxes. And _any_ VPS can use up to all the CPUs in the systems, as long as they are available.

Subject: Re: Variable Number Of Cores

Posted by dev on Mon, 13 Feb 2006 07:22:15 GMT
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not up to 32 CPU. OpenVZ is scalable as std Linux is. Any amount of CPUs is supported, which Linux kernel can handle itself.

about FPGA CPUs: The idea is interesting. I think it will be possible to use, but actually I can't see _much_ benefits why it is needed.