

## Re: Which dual opteron?

**Source:** <http://linux.derkeiler.com/Newsgroups/comp.os.linux.hardware/2004-10/0248.html>

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**From:** Anton Ertl ([anton\\_at\\_mips.complang.tuwien.ac.at](mailto:anton_at_mips.complang.tuwien.ac.at))

**Date:** 10/08/04

Date: Fri, 08 Oct 2004 20:55:56 GMT

Brian Hall <[brihall@nowhere.org](mailto:brihall@nowhere.org)> writes:

>On 2004-10-08, Anton Ertl wrote:  
>> Chris Cox <[ccox\\_nopenotthis@airmail.net](mailto:ccox_nopenotthis@airmail.net)> writes:  
>>>Al Dykes wrote:  
>>>...  
>>>>  
>>>> All opeterons are numa architecture.  
>>>>  
>>>Well... the cheaper dual boards use a shared bus to a common  
>>>bank of memory so in the spirit of numa.. I'd say I don't  
>>>think so. The higher end boards are the ones with the  
>>>separate banks for each processor. Perhaps the shared  
>>>bus is still numa somehow??  
>>  
>> Certainly a single process can see different (i.e., non-uniform)  
>> memory access times on such machines, although now at different times  
>> (if the scheduler changes the CPU of the process) rather than for  
>> different memory areas.  
>>  
>> The consequences for the software are simpler than for normal NUMAs  
>> (the scheduler should prefer one CPU when only one process is ready),  
>> but normal NUMA optimizations (allocate memory close to the process  
>> and schedule the process close to its memory) should also degenerate  
>> to this simpler policy on such a machine.  
>  
>So on a board that does this (like my MSI K8T Master2 FAR), should I  
>enable NUMA or not in the kernel config? If there is no advantage to  
>doing so, I would think it might be better to leave it disabled, since  
>the NUMA code path is less used/tested.

I would expect a slight speedup from enabling NUMA optimizations in some situations (load<2), but I am `_not_` speaking from experience, I don't know if these optimizations will do what I expect, or what effect they have on the stability.

– anton

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M. Anton Ertl

Some things have to be seen to be believed

Re: Which dual opteron?

comp.os.linux.hardware: Re: Which dual opteron?

anton@mips.complang.tuwien.ac.at Most things have to be believed to be seen  
<http://www.complang.tuwien.ac.at/anton/home.html>