Subject: Re: Xeon's, Opteron's, 32 vs 64 bit -- Next steps for the GSI batch farm
Posted by Anar Manafov on Fri, 25 Mar 2005 01:21:52 GMT
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Walter F.J. Müller wrote on Thu, 24 March 2005 10:35Soon we have to decide whether this years upgrade of the batch farm is done with 32bit or 64bit systems, whether we stick with Xeon's or switch to Opteron's.

First test results were reported in the last 'DV Ausschuss', see Report of W. Schön.

On the HEPix Autumn Meeting Stephan Wiesand summarized the experience gained at DESY, see his HEPix presentation.

Further input, comments, and suggestions are very welcome.

Good day, Walter!

This subject is quite engaging.

I looked for the documents you provided.
I only cannot reach Walter’s report. Is it possible to get access to the report of Walter Schön (from DV Ausschuss)? It seems the document is in the restricted area.
May be you could provide a copy, if it is not really restricted.

I wonder, do we have any machine for test already?
I would love to see at least some test machines and play with them; I have a bit of code (my test 64b development in C++ and Java) to test on 64b stones.

There will be better 64b integer arithmetic. Pointers can address up to 2^64 bytes (theoretically ), but still there is Linux kernel restriction, as far as I know, it can't address mo than 2^42 bytes. In anyway it is better that 2^32.
Than we can work with large files more efficient... Try real 64b software (so much advertised)…

Walter, do you know any details on the specification of machines with 64b stone, which GSI probably wants to order?
(vender, memory size, disc, bus and so on...)

From my point of view, I would order only view machines for DB management and WEB servers, maybe some for J2EE app-server if GSI has a development on it (I read very good test reports on that) and couple for test purpose.
Concerning, GSI batch farm, IMHO, it is too early to switch it to 64b.

BTW, the complete hardcopy issue of Dr.Dobb's journal (March 2005; www.ddj.com) covers the 64-bit computing. I have successfully proposed to order DDJ for GSI library two month ago. There are 2 (3) issues already in the library.