
Subject: Re: Xeon's, Opteron's, 32 vs 64 bit -- Next steps for the GSI batch farm
Posted by [Anar Manafov](#) on Tue, 29 Mar 2005 20:56:49 GMT

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Christopher Huhn wrote on Tue, 29 March 2005 17:26

The only questions to answer then will be:

Run a 32 or 64bit OS

Buy Intel or AMD

I think they are not only questions, because it is quite easy to find 64b OS.

The main questions would be

When experiments and software will be ready to use 64b? (With everything comes after it)

When developers will learn to program for 64b? (Because it is far from just switch the compiler option)

As a test, just try (one day) to switch to gcc 3.4 or 4.1 as a default compiler (on current 32b OS) and to check how many libraries and software packages of all of the GSI exp. will be still in a good condition. How many programs will be compiled...?! Even this would be a very big change in the environment! And this will make people be busy for some time. OR This idea! As I mentioned in my previous post, I think it is very early to even think about 64b!

I am not sure that there is even a FACTOR of better performance (in 32b mode) in comparing with late 32b CPUs.

The programming for 64b is quite different than current 32b programming schema. You can argue that high level programming languages are safer. Right! But Even with Java you will not get a big (THE factor!) performance on 64b in comparing to 32b (based on the latest test from DDJ).

And I think if we switch the farm to 64b that means we need to switch (change) OS and hardware on all of the GSI machines or it will be a major split of supported environment?

But maybe I don't know something, may be we are in a hurry to switch to 64?

Anyway, I would be a bit patient to start to use 64b in our cluster, IMHO.

Christopher Huhn wrote on Tue, 29 March 2005 17:26

Anyone interested in testing may contact me or Walter Schön to get access to the boxes.

Maybe the Wiki might be a good place for a compilation of the results.

I'd be especially interested in apps that do not run 64bit or do not gain performance.

Thx for the offer! This is very convenient! I' would love to test my stuff.
