
Subject: Re: recommended swap space

Posted by [Dariush Pietrzak](#) on Thu, 06 Dec 2007 18:36:29 GMT

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> documentation says swap should be physical RAM*2.

This rule was created when HDD were many times faster compared to RAM then they are today (and when programs needed way more virtual space in relation to what could be available).

Imagine how long it would take read/write 32G from HDD..., also, most really large requirements for ram come from various layers of essentially caching. In the 90s it was quite typical to run servers with half of virtual space permanently swapped out (64M ram machine, with 128M swap, and never less then 64M swap used, 512M machine with 1G swap and never less then 512M of swap used etc..).

It was possible to do that, because of large amounts of inactive code/very rarely called code in programs, thus you could safely swap out half of the code and safely assume that it won't ever be needed.

These days, most of ram goes to data, not to code, and a lot of stuff works like hash tables - every single particular page of data is accessed relatively infrequently (thus, it would be swapped out) but there are a lot of such accesses and if you wouldn't want to make them wait for HDD.

As a rule of a thumb, I assume that 10000rpm HDD can't handle swap larger then ~512M-1G and 1500rpm HDD shouldn't be burdened with more then 1-2G of swap.

> Should I really use 32GB swap space for such machine?

If you know that your machine will still run with ~30G swapped out...

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