Subject: What is cached memory in RHEL6 Node containers? Posted by mustardman on Thu, 08 Sep 2011 21:50:01 GMT

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I understand what vswap is in the RHEL6 ovzkernel based node containers but I could not find an explanation anywhere of what cached memory is.

Before with UBC there was no cached memory but now with RHEL6 and vswap there is. I am guessing it's exactly the same as cached memory on dedicated hardware?

The problem is that if it is cached like on dedicated hardware I would assume it would be marked as allocated and not available for use by other containers as physpages if needed. See what I am getting at? If that is the case I would want to be able to limit or eliminate it somehow so containers are only using as much memory as they need and not caching anything like before.

The only way I can see of doing that now is limiting physpages because if it is like cached memory on dedicated hardware the container will eventually use up all it's allocated but unused physpages with cached memory. So this creates a technical as well as sales/marketing problem because before I sold containers as dedicated RAM and not RAM+vswap (I did not market/use burst memory, just made it the same as actual memory).

With the old UBC way it was much simpler to know how much unused RAM was available for other containers because there was no cached memory and no vswap. So I just sold VPS's as 256MB, 512MB etc and when averaged out over several containers and average use I knew how much unused RAM I had available for use on new containers. Now I have to sell them as 128+128, 256+256 etc. Selling with no vswap at all is not an option because of the problem with cached memory eventually using up all the spare physpages.

See what I am getting at?

Seems to me this feature was not well thought out beyond individual containers. It would have been more elegant to prioritize this into the NODE so the NODE could free up cached memory if it needed it for physpages in containers. That way it would have acted more like it did before with burst ram and still keep all the benefits of doing it the new way with vswap.