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Subject: Re: [RFC] [-mm PATCH] Memory controller fix swap charging context in  
unuse\_pte()

Posted by [Hugh Dickins](#) on Tue, 30 Oct 2007 16:57:58 GMT

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On Tue, 30 Oct 2007, Balbir Singh wrote:

>  
> At this momemnt, I suspect one of two things  
>  
> 1. Our mods to swap\_state.c are different

I believe they're the same (just take swap\_state.c back to how it was without mem\_cgroup mods) - or would be, if after finding this effect I hadn't added a "swap\_in\_cg" switch to move between the two behaviours to study it better (though I do need to remember to swapoff and swapon between the two: sometimes I do forget).

> 2. Our configuration is different, main-memory to swap-size ratio

I doubt the swappiness is relevant: just so long as there's some (a little more than 200M I guess); I've got 1GB-2GB on different boxes.

There may well be something about our configs that's significantly different. I'd failed to mention SMP (4 cpu), and that I happen to have /proc/sys/vm/swappiness 100; but find it happens on UP also, and when I go back to default swappiness 60.

I've reordered your mail for more dramatic effect...

>  
> On a real box - a powerpc machine that I have access to

I've tried on 3 Intel and 1 PowerPC now: the Intels show the OOMs and the PowerPC does not. I rather doubt it's an Intel versus PowerPC issue as such, but interesting that we see the same.

>  
> 1. I don't see the OOM with the mods removed (I have swap  
> space at-least twice of RAM - with mem=512M, I have at-least  
> 1G of swap).

mem=512M with 1G of swap, yes, I'm the same.

> 2. Running under the container is much much faster than running  
> swapout in the root container. The machine is almost unusable  
> if swapout is run under the root container

That's rather interesting, isn't it? Probably irrelevant to the OOM issue we're investigating, but worthy of investigation in itself.

Maybe I saw the same on the PowerPC: I simply forgot to set up the cgroup one time, and my sequence of three swapouts (sometimes only two out of three OOM, on those boxes that do OOM) seemed to take a very long time (but I wasn't trying to do anything else on it at the same time, so didn't notice if it was "unusable").

I'll probe on.

Hugh

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Containers mailing list

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