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Subject: Re: [RFC][PATCH 2/7] RSS controller core  
Posted by [Balbir Singh](#) on Sun, 11 Mar 2007 15:51:30 GMT  
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On 3/11/07, Andrew Morton <akpm@linux-foundation.org> wrote:  
> > On Sun, 11 Mar 2007 15:26:41 +0300 Kirill Korotaev <dev@sw.ru> wrote:  
> > Andrew Morton wrote:  
> > > On Tue, 06 Mar 2007 17:55:29 +0300  
> > > Pavel Emelianov <xemul@sw.ru> wrote:  
> > >  
> > >  
> > >+struct rss\_container {  
> > >+ struct res\_counter res;  
> > >+ struct list\_head page\_list;  
> > >+ struct container\_subsys\_state css;  
> > >+};  
> > >+  
> > >+struct page\_container {  
> > >+ struct page \*page;  
> > >+ struct rss\_container \*cnt;  
> > >+ struct list\_head list;  
> > >+};  
> > >  
> > >  
> > > ah. This looks good. I'll find a hunk of time to go through this work  
> > > and through Paul's patches. It'd be good to get both patchsets lined  
> > > up in -mm within a couple of weeks. But..  
> > >  
> > > We need to decide whether we want to do per-container memory limitation via  
> > > these data structures, or whether we do it via a physical scan of some  
> > > software zone, possibly based on Mel's patches.  
> > i.e. a separate memzone for each container?  
>  
> Yep. Straightforward machine partitioning. An attractive thing is that it  
> 100% reuses existing page reclaim, unaltered.

We discussed zones for resource control and some of the disadvantages at  
<http://lkml.org/lkml/2006/10/30/222>

I need to look at Mel's patches to determine if they are suitable for control. But in a thread of discussion on those patches, it was agreed that memory fragmentation and resource control are independent issues.

>  
> > imho memzone approach is inconvenient for pages sharing and shares accounting.  
> > it also makes memory management more strict, forbids overcommitting  
> > per-container etc.

>  
> umm, who said they were requirements?  
>

We discussed some of the requirements in the RFC: Memory Controller requirements thread

<http://lkml.org/lkml/2006/10/30/51>

> > Maybe you have some ideas how we can decide on this?  
>  
> We need to work out what the requirements are before we can settle on an  
> implementation.  
>  
> Sigh. Who is running this show? Anyone?  
>

All the stake holders involved in the RFC discussion :-) We've been talking and building on top of each others patches. I hope that was a good answer ;)

> You can actually do a form of overcommitment by allowing multiple  
> containers to share one or more of the zones. Whether that is sufficient  
> or suitable I don't know. That depends on the requirements, and we haven't  
> even discussed those, let alone agreed to them.  
>

There are other things like resizing a zone, finding the right size, etc. I'll look at Mel's patches to see what is supported.

Warm Regards,  
Balbir Singh

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