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Subject: Re: [PATCH 3/5] page\_cgroup: make page tracking available for blkio  
Posted by [Jonathan Corbet](#) on Tue, 22 Feb 2011 20:01:45 GMT  
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On Tue, 22 Feb 2011 18:12:54 +0100  
Andrea Righi <[arighi@develer.com](mailto:arighi@develer.com)> wrote:

> The page\_cgroup infrastructure, currently available only for the memory  
> cgroup controller, can be used to store the owner of each page and  
> opportunistically track the writeback IO. This information is encoded in  
> the upper 16-bits of the page\_cgroup->flags.  
>  
> A owner can be identified using a generic ID number and the following  
> interfaces are provided to store and retrieve this information:  
>  
> unsigned long page\_cgroup\_get\_owner(struct page \*page);  
> int page\_cgroup\_set\_owner(struct page \*page, unsigned long id);  
> int page\_cgroup\_copy\_owner(struct page \*npage, struct page \*opage);

My immediate observation is that you're not really tracking the "owner" here - you're tracking an opaque 16-bit token known only to the block controller in a field which - if changed by anybody other than the block controller - will lead to mayhem in the block controller. I think it might be clearer - and safer - to say "blkcg" or some such instead of "owner" here.

I'm tempted to say it might be better to just add a pointer to your `throtl_grp` structure into `struct page_cgroup`. Or maybe replace the `mem_cgroup` pointer with a single pointer to `struct css_set`. Both of those ideas, though, probably just add unwanted extra overhead now to gain generality which may or may not be wanted in the future.

jon

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