
Subject: Re: [PATCH] remove BUG() in possible but rare condition
Posted by [Michal Hocko](#) on Thu, 12 Apr 2012 09:24:15 GMT
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On Wed 11-04-12 15:10:24, Glauber Costa wrote:

> While stressing the kernel with with failing allocations today,
> I hit the following chain of events:
>
> alloc_page_buffers():
>
> bh = alloc_buffer_head(GFP_NOFS);
> if (!bh)
> goto no_grow; <= path taken
>
> grow_dev_page():
> bh = alloc_page_buffers(page, size, 0);
> if (!bh)
> goto failed; <= taken, consequence of the above
>
> and then the failed path BUG()s the kernel.
>
> The failure is inserted a litte bit artificially, but even then,
> I see no reason why it should be deemed impossible in a real box.
>
> Even though this is not a condition that we expect to see
> around every time, failed allocations are expected to be handled,
> and BUG() sounds just too much. As a matter of fact, grow_dev_page()
> can return NULL just fine in other circumstances, so I propose we just
> remove it, then.

I had to be blind yesterday. I have double checked the call chain and this is safe already because __getblk_slow tries to free some memory and then retry the allocation if it gets allocation failure from grow_buffers (grow_dev_page).

>
> Signed-off-by: Glauber Costa <glommer@parallels.com>
> CC: Linus Torvalds <torvalds@linux-foundation.org>
> CC: Andrew Morton <akpm@linux-foundation.org>

Reviewed-by: Michal Hocko <mhocko@suse.cz>

> ---
> fs/buffer.c | 1 -
> 1 files changed, 0 insertions(+), 1 deletions(-)
>
> diff --git a/fs/buffer.c b/fs/buffer.c
> index 36d6665..351e18e 100644

```
> --- a/fs/buffer.c
> +++ b/fs/buffer.c
> @@ -985,7 +985,6 @@ grow_dev_page(struct block_device *bdev, sector_t block,
>  return page;
>
> failed:
> - BUG();
>  unlock_page(page);
>  page_cache_release(page);
>  return NULL;
> --
> 1.7.7.6
>
> --
> To unsubscribe, send a message with 'unsubscribe linux-mm' in
> the body to majordomo@kvack.org. For more info on Linux MM,
> see: http://www.linux-mm.org/ .
> Fight unfair telecom internet charges in Canada: sign http://stopthemeter.ca/
> Don't email: <a href=mailto:"dont@kvack.org"> email@kvack.org </a>
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