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 am not familiar with the code much but a trivial call chain walk up to
write_dev_supers (in btrfs) shows that we do not check for the return value
from __getblk so we would nullptr and there might be more.
I guess these need some treat before the BUG might be removed, right?

>
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> CC: Linus Torvalds <torvalds@linux-foundation.org>
> CC: Andrew Morton <akpm@linux-foundation.org>
> ---
> 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
>
> --
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> the body to majordomo@kvack.org.  For more info on Linux MM,
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