
Subject: Re: [PATCH 11/11] protect architectures where THREAD_SIZE >= PAGE_SIZE against fork bombs

Posted by [Glauber Costa](#) on Tue, 26 Jun 2012 13:37:41 GMT

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On 06/26/2012 05:38 PM, Frederic Weisbecker wrote:

> On Tue, Jun 26, 2012 at 04:48:08PM +0400, Glauber Costa wrote:

>> On 06/25/2012 10:38 PM, Tejun Heo wrote:

>>> On Mon, Jun 25, 2012 at 06:55:35PM +0200, Frederic Weisbecker wrote:

>>>> On 06/25/2012 04:15 PM, Glauber Costa wrote:

>>>>>

>>>>> Because those architectures will draw their stacks directly from
>>>>> the page allocator, rather than the slab cache, we can directly
>>>>> pass __GFP_KMEMCG flag, and issue the corresponding free_pages.

>>>>>

>>>>> This code path is taken when the architecture doesn't define
>>>>> CONFIG_ARCH_THREAD_INFO_ALLOCATOR (only ia64 seems to), and has
>>>>> THREAD_SIZE >= PAGE_SIZE. Luckily, most - if not all - of the
>>>>> remaining architectures fall in this category.

>>>>>

>>>>> This will guarantee that every stack page is accounted to the memcg
>>>>> the process currently lives on, and will have the allocations to fail
>>>>> if they go over limit.

>>>>>

>>>>> For the time being, I am defining a new variant of THREADINFO_GFP, not
>>>>> to mess with the other path. Once the slab is also tracked by memcg,
>>>>> we can get rid of that flag.

>>>>>

>>>>> Tested to successfully protect against :(){ :|:& };:

>>>>>

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>>>>>

>>>> Acked-by: Frederic Weisbecker <fweisbec@redhat.com>

>>>>

>>> Frederic, does this (with proper slab accounting added later) achieve
>>> what you wanted with the task counter?

>>>>

>>>>

>>> A note: Frederic may confirm, but I think he doesn't even need
>>> the slab accounting to follow to achieve that goal.

>

> Limiting is enough. But that requires internal accounting.

>

Yes, but why the *slab* needs to get involved?

accounting task stack pages should be equivalent to what you were doing, even without slab accounting. Right ?
