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Subject: Re: [PATCH 2/4] Add a \_\_GFP\_SLABMEMCG flag  
Posted by [James Bottomley](#) on Tue, 12 Jun 2012 14:36:27 GMT  
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On Mon, 2012-06-11 at 09:24 -0500, Christoph Lameter wrote:

> On Sat, 9 Jun 2012, James Bottomley wrote:

>

>> On Fri, 2012-06-08 at 14:31 -0500, Christoph Lameter wrote:

>>> On Fri, 8 Jun 2012, Glauber Costa wrote:

>>>

>>>> \*/

>>>> #define \_\_GFP\_NOTRACK\_FALSE\_POSITIVE (\_\_GFP\_NOTRACK)

>>>>

>>>> -#define \_\_GFP\_BITS\_SHIFT 25 /\* Room for N \_\_GFP\_FOO bits \*/

>>>> +#define \_\_GFP\_BITS\_SHIFT 26 /\* Room for N \_\_GFP\_FOO bits \*/

>>>> #define \_\_GFP\_BITS\_MASK ((\_\_force gfp\_t)((1 << \_\_GFP\_BITS\_SHIFT) - 1))

>>>>

>>> Please make this conditional on CONFIG\_MEMCG or so. The bit can be useful

>>> in particular on 32 bit architectures.

>>

>> I really don't think that's at all a good idea. It's asking for trouble

>> when we don't spot we have a flag overlap. It also means that we're

>> trusting the reuser to know that their use case can never clash with

>> CONFIG\_MEMGC and I can't think of any configuration where this is

>> possible currently.

>

> Flag overlap can be avoided using the same method as we have done with the

> page flags (which uses an enum). There are other uses of N bits after

> GFP\_BITS\_SHIFT. On first look this looks like its 4 right now so we cannot

> go above 28 on 32 bit platforms. It would also be useful to have that

> limit in there somehow so that someone modifying the GFP\_BITS sees the

> danger.

But if there's no possible configuration that can use a flag and depends on !CONFIG\_MEMGC then why bother? The main problem is that unless you get two configurations which exactly cancel each other and require a GFP flag, you end up eventually with unbuildable configurations that need >32 flags.

>> I think making the flag define of \_\_GFP\_SLABMEMCG conditional might be a

>> reasonable idea so we get a compile failure if anyone tries to use it

>> when !CONFIG\_MEMCG.

>

> Ok that is another reason to do so.

A reason to make it conditional, not a reason to go to the trouble of making the flags reusable.

James

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