
Subject: Re: [RFC PATCH 0/4] [RESEND] Change default MSGMNI tunable to scale with lowmem

Posted by [Nadia Derby](#) on Tue, 15 Jan 2008 15:30:19 GMT

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Resending with the right address for the containers mailing list.
So sorry...

Nadia Derby wrote:

> Hi,
>
> Yesterday, I posted to lkml a series of patches that make the ipc
> tunable msgmni scale with lowmem (see thread
> <http://lkml.org/lkml/2008/1/14/196>).
>
> Since these patches watch for memory hotplug notifications, I thought
> that comments from linux-mm people would be interesting.
>
> Also, since these patches change the ipc_namespace structure, comments
> from people subscribed at the containers mailing list would be welcome too.
>
> Notes:
> 1) please, Cc me since I'm not subscribed to linux-mm.
> 2) sorry for lkml subscribers who are receiving this mail for the 2nd
> time, but I wanted all the comments to be shared.
>
>
> Here is patch 0, the complete series can be found in the thread
> mentioned above.
>
> -----
>
> On large systems we'd like to allow a larger number of message queues.
> In some cases up to 32K. However simply setting MSGMNI to a larger value
> may cause problems for smaller systems.
>
> The first patch of this series introduces a default maximum number of
> message queue ids that scales with the amount of lowmem.
>
> Since msgmni is per namespace and there is no amount of memory dedicated
> to each namespace so far, the second patch of this series scales msgmni
> to the number of ipc namespaces.
>
> In the last patch, a notifier block is added to the ipc namespace
> structure to manage memory hotplug. The callback routine is activated
> upon memory add/remove and it recomputes msgmni. One callback routine is
> added to the memory notifier chain each time an ipc namespace is

> allocated. It is removed when the coresponding ipc namespace is freed.
>
> I still have 1 issue that I'll try to solve next:
> . use the notification mechanism to recompute all the msg_ctlmni each
> time an ipc namespace is created / removed.
>
>
> These patches should be applied to 2.6.24-rc7, in the following order:
>
> [PATCH 1/4]: ipc_scale_msgmni_with_lowmem.patch
> [PATCH 2/4]: ipc_scale_msgmni_with_namespaces.patch
> [PATCH 3/4]: ipc_slab_memory_callback_prio_to_const.patch
> [PATCH 4/4]: ipc_recompute_msgmni_on_memory_hotplug.patch
>
>
> Regards,
> Nadia
>

Containers mailing list
Containers@lists.linux-foundation.org
<https://lists.linux-foundation.org/mailman/listinfo/containers>
