
Subject: Re: Kernel text size with pid namespace

Posted by [Pavel Emelianov](#) on Thu, 20 Sep 2007 09:13:22 GMT

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sukadev@us.ibm.com wrote:

> Matt,

>

> The pid-namespace patchset (<http://lkml.org/lkml/2007/8/10/118>)

> was added to the -mm tree in 2.6.23-rc3-mm1.

>

> With CONFIG_CC_OPTIMIZE_FOR_SIZE=y this patchset increases the kernel

> text size by about 5K (closer to 6K when the config token is set to N).

Well, this is a new functionality, so the vmlinux size has to increase.

And as Matt has noticed 5k is not that bad :)

> As a quick test, I unlined several helper functions and with this

> the text size increased by about 4K. But since most of these inline

> functions are used in process creation/termination, we would need to

> keep them inline, when optimizing for performance.

I'd keep them inline for performance reasons.

> We also do not have a config token to select pid namespace (its always

> enabled).

This was one of Andrew's requirements. However, I assume that we can have the cloning code under this option.

> Is there a cause for concern with the 5K to 6K increase in text size ?

> If so, can/should we conditionally inline some functions ? Or move

> some pid namespace creation code under CONFIG_TINY or something ?

> Are there other techniques besides unlinling we could apply ?

>

> For reference, I am including below, some numbers for 2.6.23-rc2-mm2

> kernel for an x86_64 config file. In the following filenames:

>

> "clean" no pid ns patches

> "opt-size" CONFIG_CC_OPTIMIZE_FOR_SIZE=y

> "no-opt" CONFIG_CC_OPTIMIZE_FOR_SIZE=n

> "uninline" uninline several new inline functions.

>

> \$ size vmlinux*

>

> text data bss dec hex filename

>

> 6016101 906266 772424 7694791 7569c7 vmlinux-clean-no-opt-size

> 6021869 906330 772424 7700623 75808f vmlinux-pidns-no-opt-size

> 6020805 906330 772424 7699559 757c67 vmlinux-pidns-no-opt-uninline-task-pid
>
> 5299192 906330 772424 6977946 6a799a vmlinux-clean-opt-size
> 5304588 906394 772424 6983406 6a8eee vmlinux-pidns-opt-size
> 5303348 906394 772424 6982166 6a8a16 vmlinux-pidns-opt-size-uninline-task-pid
>
> Thanks,
>
> Suka
>

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