## Subject: Re: [ckrm-tech] [RFC] [PATCH 00/12] CKRM after a major overhaul Posted by Kirill Korotaev on Mon, 24 Apr 2006 06:38:30 GMT

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```
>>>Yes, it is effective, and the reclamation is O(1) too. It has couple of
>>>problems by design, (1) doesn't handle shared pages and (2) doesn't
>>>provide support for both min shares and max shares.
>>>
>>>Right. I wanted to show proof-of-cencept of the pzone based controller
>>>and implemented minimal features necessary as the memory controller.
>>>So, the pzone based controller still needs development and some cleanup.
>>
>>Just out of curiosity, how it was measured that it is effective?
>
> I don't have any benchmark numbers yet, so I can't explain the
> effectiveness with numbers. I've been looking for the way to
> measure the cost of pzones correctly, but I've not found it out yet.
>
>>How does it work when there is a global memory shortage in the system?
> I guess you are referring to the situation that global memory is running
> out but there are free pages in pzones. These free pages in pzones are
> handled as reserved for pzone users and not used even in global memory
> shortage.
ok. Let me explain what I mean.
```

Imagine the situation with global memory shortage. In kernel, there are threads which do some job behalf the user, e.g. kjournald, loop etc. If the user has some pzone memory, but these threads fail to do their job some nasty things can happen (ext3 problems, deadlocks, OOM etc.) If such behaviour is ok for you, then great. But did you consider it?

Also, I can't understand how it works with OOM killer. If pzones has enough memory, but there is a global shortage, who will be killed?

Thanks, Kirill

Subject: Re: [ckrm-tech] [RFC] [PATCH 00/12] CKRM after a major overhaul Posted by KUROSAWA Takahiro on Mon, 24 Apr 2006 07:12:46 GMT View Forum Message <> Reply to Message

On Mon, 24 Apr 2006 10:45:59 +0400 Kirill Korotaev <dev@openvz.org> wrote:

- >>>>Yes, it is effective, and the reclamation is O(1) too. It has couple of
- >>>>problems by design, (1) doesn't handle shared pages and (2) doesn't
- >>>>provide support for both min\_shares and max\_shares.
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- > Imagine the situation with global memory shortage. In kernel, there are
- > threads which do some job behalf the user, e.g. kjournald, loop etc. If
- > the user has some pzone memory, but these threads fail to do their job
- > some nasty things can happen (ext3 problems, deadlocks, OOM etc.)
- > If such behaviour is ok for you, then great. But did you consider it?

>

- > Also, I can't understand how it works with OOM killer. If pzones has
- > enough memory, but there is a global shortage, who will be killed?

## I understand.

IMHO, only the system processes should use global memory. User processes that may cause such memory shortage should be enclosed in pzones first.

Thanks.

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KUROSAWA, Takahiro