
Subject: Re: [ckrm-tech] [PATCH] BC: resource beancounters (v4) (added user memory)

Posted by [Pavel Emelianov](#) on Mon, 11 Sep 2006 08:13:59 GMT

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Balbir Singh wrote:

> Pavel Emelianov wrote:

>> Balbir Singh wrote:

>>> Dave Hansen wrote:

>>>> On Fri, 2006-09-08 at 11:33 +0400, Pavel Emelianov wrote:

>>>>> I'm afraid we have different understandings of what a "guarantee" is.

>>>> It appears so.

>>>>

>>>>> Don't we?

>>>>> Guarantee may be one of

>>>>>

>>>>> 1. container will be able to touch that number of pages

>>>>> 2. container will be able to sys_mmap() that number of pages

>>>>> 3. container will not be killed unless it touches that number of

>>>>> pages

>>>> A "death sentence" guarantee? I like it. :)

>>>>

>>>>> 4. anything else

>>>>>

>>>>> Let's decide what kind of a guarantee we want.

>>> I think of guarantees w.r.t resources as the lower limit on the

>>> resource.

>>> Guarantees and limits can be thought of as the range (guarantee, limit]

>>> for the usage of the resource.

>>>

>>>> I think of it as: "I will be allowed to use this many total pages, and

>>>> they are guaranteed not to fail." (1), I think. The sum of all of

>>>> the

>>>> system's guarantees must be less than or equal to the amount of free

>>>> memory on the machine.

>>> Yes, totally agree.

>>

>> Such a guarantee is really a limit and this limit is even harder than

>> BC's one :)

>>

>> E.g. I have a node with 1Gb of ram and 10 containers with 100Mb

>> guarantee each.

>> I want to start one more. What shall I do not to break guarantees?

>

> Don't start the new container or change the guarantees of the existing

> ones

> to accommodate this one :) The QoS design (done by the administrator)

> should

> take care of such use-cases. It would be perfectly ok to have a container
> that does not care about guarantees to set their guarantee to 0 and set
> their limit to the desired value. As Chandra has been stating we need two
> parameters (guarantee, limit), either can be optional, but not both.

If I set up 9 groups to have 100Mb limit then I have 100Mb assured (on
1Gb node)

for the 10th one exactly. And I do not have to set up any guarantee as
it won't affect

anything. So what a guarantee parameter is needed for?
