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

Posted by [Pavel Emelianov](#) on Mon, 11 Sep 2006 06:56:59 GMT

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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?

>

>> If we knew to which NUMA node the memory was going to go, we might as

>> well take the pages out of the allocator.

>>  
>> -- Dave  
>>

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