Subject: Re: [ckrm-tech] [PATCH] BC: resource beancounters (v4) (added user memory)
Posted by Dave Hansen on Tue, 05 Sep 2006 17:46:32 GMT
View Forum Message <> Reply to Message

On Tue, 2006-09-05 at 19:02 +0400, Kirill Korotaev wrote:
> Core Resource Beancounters (BC) + kernel/user memory control.
>
> BC allows to account and control consumption
> of kernel resources used by group of processes.

Hi Kirill,

I've honestly lost track of these discussions along the way, so I hope
you don't mind summarizing a bit.

Do these patches help with accounting for anything other than memory?
Will we need new user/kernel interfaces for cpu, i/o bandwidth, etc...?

Have you given any thought to the possibility that a task might need to
move between accounting contexts? That has certainly been a
"requirement" pushed on to CKRM for a long time, and the need goes
something like this:

1. A system runs a web server, which services several virtual domains
2. that web server receives a request for foo.com
3. the web server switches into foo.com's accounting context
4. the web server reads things from disk, allocates some memory, and
   makes a database request.
5. the database receives the request, and switches into foo.com's
   accounting context, and charges foo.com for its resource use
etc...

So, the goal is to run _one_ copy of an application on a system, but
account for its resources in a much more fine-grained way than at the
application level.

I think we can probably use beancounters for this, if we do not worry
about migrating _existing_ charges when we change accounting context.
Does that make sense?

-- Dave