Subject: Re: first stable release of OpenVZ kernel virtualization solution
Posted by dev on Tue, 06 Dec 2005 19:44:21 GMT
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> * Kirill Korotaev <dev@sw.ru> wrote:
>
>
>>>my point is, that such a swap or writeout related slowdown of a highprio
>>>instance can be just as bad as a real DoS - and it brings us essentially
>>>back to where we started with vserver. (and writeout related slowdowns
>>>of unrelated instances cannot be avoided even with the most conservative
>>>UBC settings, correct?)
>
>
>>We plan to use CFQv2 in some near future, but currently writeout is
>>not controlled by UBC anyhow. The only note is that currently used
>>disk I/O scheduler (anticipatory) behaves quite well when one VPS is
>>doing massive writes... Disk I/O is a kind of problem for any of
>>existing virtualization solutions and OpenVZ is not different here...
>
>
> it's not just massive disk IO and IO starvation of another instance
> (which can be mitigated by isolating the disks of instances), it's also
> the starvation of RAM of another instance.
>
> Or is that solved already? I.e. can high-prio instances have a
> guaranteed amount of RAM set aside for them - even if they do not make
> use of that guaranteed amount at the moment?
Ah, I see your question now. Right now it is guaranteed only if no
overcommitment on the node, i.e. we have no guarantees in UBCs. But
actually I suppose it is not hard to implement such guarantees for
memory via page pools for VPSs which require such guarantees.
There were no real demands or at least we never heard such.

> this is where the Xen approach still seems to differ so much: there the
> RAM assigned to an instance truly belongs to that instance. I.e. you can
> achieve guaranteed service, no matter what another instance does.
sure, the approach is different. Our goals were bit different - to get
the highest VPS density.
BTW, AFAIK Xen is trying to implement so-called "balooning", which
actually is a direction to OpenVZ approach, when memory is not locked
behind the VPS.

Kirill