Subject: Re: Measuring and Adjusting CPU utilization
Posted by dev on Wed, 07 Jun 2006 08:20:05 GMT
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> Thanks ! This solved the problem. However, I still see the loadavg at
> 100% (got from cat /proc/loadavg), but if I run top and see the CPU% for
> the one particular application (while(1) loop), it is limited to 10% CPU.
This is also correct, since load average means 'average number of
processes in running + uninterruptible state'. Since you busy loop is
constantly in running state, it is accounted as 1.0 in loadavg.

> I can add up the CPU% for all the processes running in the container,
> and can get the current % utilization of the container. Is there a
> better way to do this?
Sorry, didn't got what you mean... Probably you ask how to calculate the
amount of CPU being consumed by VPS in %?
To do so, you need to monitor /proc/vz/vestat file.
http://forum.openvz.org/index.php?t=msg&goto=2790&&a mp;srch=vestat#msg_2790

Thanks,
Kirill

> Pradeep
>
>
> Pradeep Padala wrote:
>
> > Thanks for the explanation, but I DID use the --cpulimit parameter.
> >
> > I set the limit to 1000 units, I run a while(1) loop, and I see a
> 100%
> > loadavg on the host node. Shouldn't it be somewhere around 10% ?
> >
> > Pradeep
> >
> > On 6/6/06, *Kir Kolyshkin* <kir@openvz.org
> <mailto:kir@openvz.org> <mailto:kir@openvz.org <mailto:kir@openvz.org>>>
> > wrote:
> >
> > Looks like you misunderstand the concept of cpuunits.
> cpuunits is
> > not a
> > hard limit, but just a suggestion, and a CPU time is shared
> > proportionally to the values given. So, if you will have 9
> VEs and the
> > host system with cpuunits set to 1000 for all of them, and
> run the
> > loop

> > in all of them, each VE will use 10% of the CPU time.
> >
> > In case you will stop the loop running in 5 VEs so there will
> be 4
> > such
> > VEs (plus the host system) left, each of them will use 20% of
> the CPU.
> > So, all the CPU time is distributed between VEs which will
> need it,
> > according with their proportional cpuunits.
> >
> > More to say, the concept of "total CPU units" is purely fiction,
> > and is
> > here just for the convenience. People do want to set CPU units is
> > terms
> > of processor's megaherts, and this is what cpuunits does. But in
> > fact it
> > is not a megaherts but just a relative weights. I.e. all the
> cpuunits
> > values are relative to each other, it doesn't matter what the
> actual
> > numbers are -- what matters is a number given to a VE in relation
> > to the
> > sum of all cpuweights (which is expressed as "total CPU units"
> > just for
> > the convenience).
> >
> > So, cpuunits, if you do not oversell them, are a CPU
> guarantee, not a
> > limit. If you want CPU limit -- use cpulimit parameter.
> >
> > Pradeep Padala wrote:
> >
> > > Hi,
> > >
> > > I am trying to measure the CPU utlilization of the VZ
> > containers, and
> > > change the cpu share dynamically. I have poured over most
> of the
> > > documentation, and looked at the code as well, and it seems
> like
> > > there's no utility that can directly show the current CPU
> > utilization
> > > of a container (some thing like 30% of CPU). A search on the
> > user list
> > > got me a message, where someone suggested using loadavg.
> > However, It
> > > seems like the loadavg is not showing the proper

> utilization (or
> > > showing the total CPU utilization). This is what I am doing.
> > >
> > > I setup a container with 1000 units limit (total CPU units:
> > > ~10000). I
> > > wrote a small do {; }while(1); loop and ran it in the
> container,
> > > now I
> > > do cat /proc/loadavg in both the container and on the host
> node.
> > > Since, the container is only using 1000 units, I should see
> > > something
> > > like 100% loadavg in the container, and 10% loadavg in the
> hostnode.
> > > But, I see 100% at both places. Am I doing something wrong?
> How do I
> > > get the current cpu utilization of a container?
> > >
> > > Thanks,
>
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> ---------- ----------
>