
Subject: Re: Measuring and Adjusting CPU utilization

Posted by [kir](#) on Wed, 07 Jun 2006 00:12:43 GMT

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CPU limit is in per cent units. I.e. if your server has a single CPU, use `--cpulimit 10` to limit a VE to 10% of the CPU.

On a two-way SMP box max. value of `cpulimit` is 200. Say, if you want a VE to use no more than one CPUs, use `--cpulimit 100`.

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>>>
> 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 in
> terms
> of processor's megahertz, and this is what `cpuunits` does. But in
> fact it
> is not a megahertz 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 utilization 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,

> > --

> > Pradeep Padala
> > <http://ppadala.blogspot.com>

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> >Users mailing list
> >Users@openvz.org <<mailto:Users@openvz.org>>
> ><https://openvz.org/mailman/listinfo/users>
> ><<https://openvz.org/mailman/listinfo/users>>

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> Pradeep Padala
> <http://ppadala.blogspot.com>

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