Subject: *SOLVED* Using cpuunits to enforce CPU proportional shares
Posted by Pradeep Padala on Mon, 05 Feb 2007 15:47:44 GMT
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Hi,

I am trying to enforce a CPU usage ratio by using the cpuunits option instead of cpulimit. For ex. I want to make sure that two VEs ve1, ve2 should have a CPU consumption ratio of 3:1 (proportional shares). I know that I can use cpulimit to do this, but is it possible to use cpuunits ? If I run two CPU consuming applications in ve1 and ve2, and specify a 3:1 ratio of cpuunits, would the VEs consume CPU in that ratio ?

I experimented with a simple while(1) loop and it doesn't seem to follow this. If this doesn't work, what's the use of specifying cpuunits ?

Pradeep

Subject: Re: Using cpuunits to enforce CPU proportional shares
Posted by Vasily Tarasov on Mon, 05 Feb 2007 16:46:35 GMT
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Hello,

Actually it should work as you expect: if cpuunits is 3:1, then first VE should have 3 times more CPU. So let's find out why this is not right for you.
Please, provide the information about the kernel you're using, how did you conduct the test, <veid>.conf files, vz.conf files, contents of /proc/user_beancounters, /proc/fairsched, /proc/fairsched2.

Thanks,
Vasily.

Subject: Re: Using cpuunits to enforce CPU proportional shares
Posted by Pradeep Padala on Tue, 06 Feb 2007 19:01:55 GMT
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Ok, I re-checked it, and it works with a non-SMP kernel. But, with SMP kernel, the two processes (while(1)) running in the two VEs take the two CPUs and reach 100% consumption on both, no matter what cpuunits I set.

Subject: Re: Using cpuunits to enforce CPU proportional shares
Posted by dev on Tue, 06 Feb 2007 21:09:51 GMT
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this is correct.
OpenVZ cpu scheduler is work conservative, which means that if the most high priority VE can't consume all the power available to it, this resources are given to others.

in your case, a single process from VE1 can't consume 2 cpus, so second cpu is shared by others.
