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Subject: Re: Dstat plugin for OpenVZ CPU statistics  
Posted by [Dag Wieers](#) on Mon, 23 Oct 2006 07:25:15 GMT  
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On Tue, 17 Oct 2006, Kirill Korotaev wrote:

> I think the following statistics are helpful for OpenVZ:  
>  
> - per VE UBC fail counters (failcnt in /proc/user\_beancounters).  
> I would draw a delta between 2 screen updates and if it is non-zero  
> draw it in red.

I wrote a new vzübc plugin for this and renamed the vz plugin to vzücpu.  
It only displays the per VE failcnt or the total failcnt.  
Feedback welcome.

```
[root@itmphys01 dstat]# ./dstat -c -Mvzücpu,vzübc
Module dstat_vzücpu is still experimental.
Module dstat_vzübc is still experimental.
----total-cpu-usage---- -total-ve-usage total
usr sys idl wai hiq siq|usr sys idl nic|_fcnt
 0  0 98  1  0  0| 0  0 100  0|8471
 0  0 100  0  0  0| 0  0 100  0|  0
 0  0 100  0  0  0| 0  0 100  0|  0
 0  0 97  4  0  0| 0  0 100  0|  0
 1  0 100  0  0  0| 0  0 100  0|  9
 0  0 97  2  0  0| 0  0 100  0|  3
 0  0 100  0  0  0| 0  0 100  0|  0
```

```
[root@itmphys01 dstat]# ./dstat -c -Mvzücpu,vzübc -f
Module dstat_vzücpu is still experimental.
Module dstat_vzübc is still experimental.
-----cpu0-usage-----cpu1-usage----- --ve-301-usage----ve-302-usage- -301---302-
usr sys idl wai hiq siq:usr sys idl wai hiq siq|usr sys idl nic:usr sys idl nic|_fcnt:_fcnt
 0  0 99  1  0  0: 0  0 98  2  0  0| 0  0 100  0: 0  0 100  0|8470  0
 0  0 100  0  0  0: 0  0 100  0  0  0| 0  0 100  0: 0  0 100  0|  0  0
 0  0 100  0  0  0: 1  0 99  0  0  0| 0  0 99  0: 0  0 100  0|  4  0
 0  0 100  0  0  0: 0  0 100  0  0  0| 0  0 100  0: 0  0 100  0|  5  0
 0  0 100  0  0  0: 0  0 100  0  0  0| 0  0 100  0: 0  0 100  0|  3  0
 0  0 96  4  0  0: 1  1 91  7  0  0| 0  0 100  0: 0  0 100  0|  2  0
```

Non-zero is displayed in color.

> - per VE memory limit (kmemsize + privvmpages) and current usage  
> (kmemsize + oomguarpages). Same, if kmemsize or privvmpages  
> failcnt is increasing, then it can be drawn in red.

How do I have to look at this ?

used = kmemsize + oomguarpages

total = kmemsize + privvmpages

percentage used :  $\text{used} * 100 / \text{total}$

> - per VE CPU usage. This one can be calculated from /proc/fairsched2

> here are some details on this:

> <http://forum.openvz.org/index.php?t=tree&th=479&mid=2771&&rev=&reveal=>

Is my current implementation wrong ? It seems to provide correct information. Except maybe for the nice-value. I have never seen it different from zero.

I also don't understand what the idle/strv/uptime values are.

> - per VE and global CPU and memory latency.

I have no clue to what CPU and memory latency means. What is the value displayed in ? How to visualize ?

> - per VE disk I/O stats (stats not available yet).

> - per VE network stats (there is no generic stats yet).

I'm obviously interested in both as well.

Are there any other counters that proof useful, like eg. number of interrupts, number of context-switches, loadavg etc. Are things like that available from openvz ?

dstat needs some infrastructure to pass options/arguments to plugins. At this point that is not possible, limiting the user to specify either the total, or the per VE for \_all\_ VEs. This of course is pretty annoying if you have 50 VEs on a system :)

I'm considering a syntax like this:

```
dstat -M vzcpu:total;301;302 -M vzubc:total;301;302
```

Kind regards,

-- dag wieers, [dag@wieers.com](mailto:dag@wieers.com), <http://dag.wieers.com/> --  
[all I want is a warm bed and a kind word and unlimited power]