Subject: HN beancounters and system memory.
Posted by glic3rinu on Wed, 27 Jan 2010 06:24:16 GMT
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Hi!

I know that, by default, command 'free' inside a container returns all memory usage including buffers and cache. But what happens in the CT0 (also known as Hardware Node)? I'm asking because the results of the command 'free' in the CT0 are a bit different from results returned by vzcheckmem + CT0 usage

For example.

vzmemcheck -vA reports that I have 2418.08MB of RAM utilization. To know the total RAM utilization of the whole system I need to add to this value the CT0 RAM util. At this moment my CT0 takes 220.36MB of RAM util[1]. In total I have 2638.44MB of RAM util. but free command reports something different: 3337.99MB (without buffers and caches). What is the cause of this difference? what are these uncounted 699MB?

Thank you very much!!
Marc

[1]I get this result using this information:
http://wiki.openvz.org/UBC_systemwide_configuration#Total_RA M
I can guaranty that 220.36MB is the correct value for my CT0 RAM utilization, unless the way for counting RAM util is different for the CT0.

Subject: Re: HN beancounters and system memory.
Posted by glic3rinu on Wed, 27 Jan 2010 09:41:42 GMT
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I'm getting more and more confused

Executing 'free -m' in all containers..

HN# for i in 103 105 106 107; do vzctl exec $i "free -m"; done

```
vid   total used  free shared buffers cached
103:  4000  2797  1202   0      0       0
105:  1536  839   696    0      0       0
106:  1536  416   1119   0      0       0
107: 12000  8480  3519   0      0       0
-------------------------------------------------
         12532
```

*Note: I cut some irrelevant information for better view

Comparing with executing free in the HN...

HN# free -m
total used free shared buffers cached
Mem: 12008 8299 3708 0 288 4231
-/+ buffers/cache: 3779 8229
Swap: 8575 0 8575

How is possible that the container with vid 107 have more memory (8480MB) than the reported by command free in the HN (8299MB)? (Note: swap usage=0)

vzmemcheck reports something similar:

vzmemcheck -vA
Output values in Mbytes
veid LowMem RAM MemSwap Alloc
util util util util
107 1219.66 3436.54 3436.54 8899.95
114 0.02 0.02 0.02 0.02
103 14.31 986.88 986.88 2811.73
105 7.77 600.83 600.83 849.09
106 9.02 223.00 223.00 449.64

Sum: 1250.77 5247.26 5247.27 13010.42

*Note: I cut some irrelevant information for better view

HN# free -m
total used free shared buffers cached
Mem: 12008 8643 3364 0 316 4491
-/+ buffers/cache: 3835 8172
Swap: 8575 0 8575

The total memory used by containers (without caches) (5247.26MB) are higher than the total system memory (without caches) (3835MB).

What am I missing?

I appreciate any comment!

Thanks!