Subject: GameServer out of memory
Posted by martin18 on Wed, 08 Mar 2006 11:11:41 GMT
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Hello.

I am trying to run a cod2 game server with openvz. but i get a error from the game server (out of memory)

The server is 64bit software and has 2GB of memory.

What can i do ??

(sorry for my bad eng)

tanks Martin

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meminfo

MemTotal: 2050688 kB
MemFree: 10584 kB
Buffers: 3064 kB
Cached: 1743616 kB
SwapCached: 1260 kB
Active: 1147536 kB
Inactive: 730132 kB
HighTotal: 0 kB
HighFree: 0 kB
LowTotal: 2050688 kB
LowFree: 10584 kB
SwapTotal: 2031608 kB
SwapFree: 2004872 kB
Dirty: 0 kB
Writeback: 0 kB
Mapped: 137808 kB
Slab: 145792 kB
Committed_AS: 312784 kB
PageTables: 2048 kB
VmallocTotal: 536870908 kB
VmallocUsed: 6336 kB
VmallocChunk: 18014398509481980 kB

Subject: Re: GameServer out of memory

Posted by LayerFour on Wed, 08 Mar 2006 16:10:10 GMT
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Have you setup your User Beancounters properly for the VE?

Subject: Re: GameServer out of memory
Posted by kir on Wed, 08 Mar 2006 16:38:51 GMT
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In VPS you should look into /proc/userbeancounters, not /proc/meminfo. It is user beancounters which limit VPS memory.

If you see there is some parameter for which failcnt (last column) is more than zero, you have to increase it (say, multiply both barrier and limit by 1.5 then apply using vzctl set NNN --paramname new_barrier:new_limit --save). Then, do vzcfgcheck /etc/sysconfig/vz-scripts/NNN.conf and if there are some errors, fix them as suggested.

Run your app again and watch /proc/user_beancounters. If failcnt grows, increase the appropriate parameter again, and do not forget to check new VPS config using vzcfgcheck.

That way you will end up with an optimal config for a VPS running your particular application.

Subject: Re: GameServer out of memory
Posted by martin18 on Wed, 08 Mar 2006 17:50:59 GMT
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okay there is someting wrong .....

how to setup Beancounters ???

Version: 2.5

uid	resource	held	maxheld	barrier	limit	failcnt
1:	kmemsize	3248554	5242876	5242880	5242880	57576330
	lockedpages	0	0	32	32	0
	privvmpages	5886	237787	262144	262144	52
	shmpages	683	1979	8192	8192	0
	dummy	0	0	0	0	0
	numproc	18	33	80	100	0
	physpages	3016	60573	32768	32768	0
	vmguarpages	0	0	131072	131072	0
	oomguarpages	3056	92402	32768	32768	0

numtcpsock	4	11	80	80	0
numflock	2	4	100	110	0
numpty	1	5	16	20	0
numsiginfo	0	10	256	256	0
tcpsndbuf	4672	109792	319488	524288	0
tcprcvbuf	0	328640	319488	524288	249
othersockbuf	2336	16608	132096	336896	0
dgramrcvbuf	0	13152	132096	132096	0
numothersock	4	18	80	80	0
dcachesize	154208	284992	1048576	1097728	0
numfile	238	522	1280	1280	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
numiptent	10	10	128	128	0

Subject: Re: GameServer out of memory
Posted by kir on Mon, 20 Mar 2006 06:40:19 GMT
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Here is a step-by-step instruction

(0) Start with the known working VPS config. It can be vps.basic config, you can apply it to a VPS using this command:
vzctl set VPSID --applyconfig vps.basic --save

(1) See /proc/user_beancounters if there are some beancounters for which failcnt>0. In your case this is kmemsize, privvmpages and tcprcvbuf. You need to increase them.

(2) For each beancounter you want to increase, take the current values of barrier and limit, and multiply it by some factor (e.g. 1.2 or 1.5 or 2 or 4). Apply the newly calculated values using this command:
vzctl set VPSID --beancounter newbarrier:newlimit --save
Please note that in most cases there should be a safety gap between a barrier and a limit.

(3) Check the resulting configuration using vzcfgvalidate:
vzcfgvalidate /etc/sysconfig/vz-scripts/VPSID.conf
If there are some errors or warnings -- fix them as suggested, or run vzcfgvalidate with -r switch to fix automatically.

(4) Notice the current value of failcnt for the parameter you have just increased. Try running your

application in VPS again. Check if there is some problems in its log files. Check if failcnt is growing. If it is growing, go back to step 2.

(5) You should end up with your application fully working, without increasing failcnts for all the beancounters, and with a valid VPS config (vzcfgvalidate should not complain). To be sure, restart your VPS and check /proc/user_beancounters again. Then try to create some load for your application to check it works under load as well.

Subject: Re: GameServer out of memory
Posted by dev on Mon, 20 Mar 2006 13:31:52 GMT
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This output shows that you have configured too tight resource restrictions for your VPS.

the last column in /proc/user_beancounters output shows you which resource was experiencing shortage.
in your case it is kmemsize, privvmpages, tcprcvbuf.
you can increase these limits using:

vzctl set <VPSID> --kmemsize barrier:limit --save
vzctl set <VPSID> --privvmpages barrier:limit --save
vzctl set <VPSID> --tcprcvbuf barrier:limit --save

in your case I would try to increase it, something like this:

vzctl set 111 --kmemsize 10000000:11000000 --tcprcvbuf 5242880:5842880 --save

Also, check whether you game server has parameter which allows to limit its memory desires. I found the following parameters for cod2:
Quote:
set com_hunkMegs "96" // Amount of memory dedicated to server
set com_zoneMegs "32" // File memory

here: http://www.codboards.com/lofiversion/index.php/t8798.html

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