
Subject: Strange memory usage patterns...

Posted by [Wildy](#) on Fri, 24 Apr 2009 09:32:08 GMT

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(x-posted and translated from Russian, since the activity there is very low)

We have a problem once again...

The server layout is: 2x Xeon 5140 (4 cores total), 16 GB RAM, SAS RAID 1. Installed are: OpenVZ, Debian (in the HN and VE alike), drbd. After some days of usage the machine started to show lack of free memory, and the most of it is Inactive in /proc/meminfo. After we've killed absolutely everything (with SysRQ+E!) the memory wouldn't free.

Inside of the node are various components (the HN is clean) - apache2+php, mysql5, mail, ejabberd, bind9.

Here are the stats.

```
uname -a
```

```
Linux real2 2.6.18-openvz-13-51.3d1-amd64 #1 SMP Tue Dec 25 22:50:42 MSK 2007 x86_64
```

```
GNU/Linux
```

```
cat /proc/meminfo
```

```
MemTotal:    16390204 kB
MemFree:     377592 kB
Buffers:     275640 kB
Cached:      3262192 kB
SwapCached:    0 kB
Active:      5873892 kB
Inactive:    9432296 kB
HighTotal:        0 kB
HighFree:        0 kB
LowTotal:    16390204 kB
LowFree:     377592 kB
SwapTotal:    7815612 kB
SwapFree:    7815576 kB
Dirty:       3328 kB
Writeback:      0 kB
AnonPages:   3613180 kB
Mapped:      73072 kB
Slab:       552916 kB
PageTables:   71704 kB
NFS_Unstable:  0 kB
Bounce:       0 kB
CommitLimit: 16010712 kB
Committed_AS: 5950124 kB
VmallocTotal: 34359738364 kB
VmallocUsed:  303316 kB
VmallocChunk: 34359433888 kB
```

cat /proc/user_beancounters

Version: 2.5

uid	resource	held	maxheld	barrier	limit	failcnt
107:	kmemsize	7472644	9994715	36845281	39078329	
0						
	lockedpages	0	0	35	35	0
	privvmpages	137614	139832	262144	262144	
0						
	shmpages	18	18	8192	8192	0
	dummy	0	0	0	0	0
	numproc	25	40	239	239	0
	physpages	117896	119132	0	9223372036854775807	
0						
	vmguarpages	0	0	6144	9223372036854775807	
0						
	oomguarpages	117896	119132	6144	9223372036854775807	
0						
	numtcpsock	8	34	200	200	0
	numflock	1	9	1000	1100	0
	numpty	0	3	16	16	0
	numsiginfo	0	4	256	256	0
	tcpsndbuf	139520	514024	8388608	12582912	
0						
	tcprcvbuf	131072	3511264	5582617	6343884	
0						
	othersockbuf	83992	322008	1395653	4194304	
0						
	dgramrcvbuf	0	44816	159835	159835	
0						
	numothersock	39	56	1024	1024	0
	dcachesize	307053	378828	1536000	1920000	
0						
	numfile	871	1104	10000	10000	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	numiptent	10	10	5000	5000	0
106:	kmemsize	4920770	7640718	33554432	33554432	
0						
	lockedpages	0	0	32	32	0
	privvmpages	52230	77929	262144	307200	
0						
	shmpages	18	1026	8192	8192	0
	dummy	0	0	0	0	0
	numproc	22	40	100	120	0

0	physpages	37441	49031	0	9223372036854775807
0	vmguarpages	0	0	6144	9223372036854775807
0	oomguarpages	37441	49031	6144	9223372036854775807
0	numtcpsock	25	49	80	80 0
0	numflock	1	7	100	110 0
0	numpty	0	2	16	16 0
0	numsiginfo	0	6	256	256 0
0	tcpsndbuf	160328	543144	1048576	2097152
0	tcprcvbuf	722872	1809864	8388608	8388608
0	othersockbuf	2312	28472	132096	336896
0	dgramrcvbuf	0	10768	132096	132096
0	numothersock	2	12	80	80 0
0	dcachesize	264798	358581	1048576	1097728
0	numfile	656	948	4000	4500 0
0	dummy	0	0	0	0 0
0	dummy	0	0	0	0 0
0	dummy	0	0	0	0 0
0	numiptent	10	10	128	128 0
104:	kmemsize	1360171	3342912	10485760	15728640
0	lockedpages	0	16	32	32 0
0	privvmpages	19210	33829	65536	65536
0	shmpages	0	1008	8192	8192 0
0	dummy	0	0	0	0 0
0	numproc	12	27	65	65 0
0	physpages	6562	11308	0	9223372036854775807
0	vmguarpages	0	0	6144	9223372036854775807
0	oomguarpages	6562	11308	6144	9223372036854775807
0	numtcpsock	6	11	80	80 0
0	numflock	1	5	100	110 0
0	numpty	0	2	16	16 0
0	numsiginfo	0	4	256	256 0
0	tcpsndbuf	0	30784	319488	524288 0
0	tcprcvbuf	98304	1057432	1048576	2097152
209	othersockbuf	23120	215808	212738	336896

35175	dgramrcvbuf	0	39368	1048576	2097152	
0	numothersock	11	108	140	140	0
	dcachesize	123009	214092	1048576	1097728	
0	numfile	638	992	2048	2048	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
103:	kmemsize	6853032	25775467	61238573	75987811	
0	lockedpages	0	16	32	32	0
	privvmpages	482320	943071	1048576	1048576	
0	shmpages	0	1344	8192	8192	0
	dummy	0	0	0	0	0
	numproc	40	600	600	650	521
	physpages	445994	547246	0	9223372036854775807	
0	vmguarpages	0	0	6144	9223372036854775807	
0	oomguarpages	445994	547246	6144	9223372036854775807	
0	numtcpsock	23	589	3000	3000	0
	numflock	125	129	500	510	0
	numpty	0	1	16	16	0
	numsiginfo	0	4	256	256	0
	tcpsndbuf	732480	2659600	13841203	16777216	
0	tcprcvbuf	376832	1286280	4956160	6717440	
0	othersockbuf	4624	292480	309760	460800	
0	dgramrcvbuf	0	2576	132096	132096	0
	numothersock	3	13	200	200	0
	dcachesize	457293	1156848	2560000	2560000	
0	numfile	1326	8000	8800	8800	3852
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	numiptent	10	10	128	128	0
102:	kmemsize	15004300	27179230	40529809	42986161	
0	lockedpages	0	16	32	32	0
	privvmpages	221050	395998	524288	524288	

0	shmpages	0	992	8192	8192	0
	dummy	0	0	0	0	0
	numproc	79	176	239	239	0
	physpages	198442	228764	0	9223372036854775807	
	0					
	vmguarpages	0	0	6144	9223372036854775807	
0	oomguarpages	198442	228764	6144	9223372036854775807	
	0					
	numtcpsock	44	97	500	550	0
	numflock	16	81	1000	1100	0
	numpty	2	3	16	16	0
	numsignifo	0	12	256	256	0
	tcpsndbuf	831040	3273568	8388608	12582912	
0	0					
	tcprcvbuf	603008	4730384	5582617	6343884	
0	0					
	othersockbuf	398904	1077840	1395653	4194304	
0	0					
	dgramrcvbuf	0	127416	159835	159835	
0	0					
	numothersock	226	551	1024	1024	0
	dcachesize	606340	930686	11520000	11520000	
0	0					
	numfile	3100	6778	30000	35000	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	numiptent	158	358	5000	5000	0
101:	kmemsize	87853961	229649570	314572800	314572800	
	0					
	lockedpages	2123	2331	2409	2409	0
	privvmpages	237523	678464	774400	774400	
0	0					
	shmpages	3491	6067	8192	8192	0
	dummy	0	0	0	0	0
	numproc	319	681	825	825	0
	physpages	107222	375679	0	9223372036854775807	
	0					
	vmguarpages	0	0	6144	9223372036854775807	
0	0					
	oomguarpages	107222	375679	6144	9223372036854775807	
	0					
	numtcpsock	124	1289	2024	2024	0
	numflock	3	519	1000	1100	0
	numpty	0	3	16	16	0
	numsignifo	0	512	563	563	0

0	tcpsndbuf	4200888	17778336	40600862	45782302	
0	tcprcvbuf	1440792	9217944	11534336	19031488	
0	othersockbuf	261256	757392	1108607	2048576	
0	dgramrcvbuf	0	88872	159835	159835	
0	numothersock	234	296	512	512	0
0	dcachesize	915525	2337171	11520000	11520000	
	numfile	4246	7290	10000	10000	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	dummy	0	0	0	0	0
	numiptent	14	16	128	128	0
0:	kmemsize	11926576	14721714	9223372036854775807		
9223372036854775807		0				
	lockedpages	43913	43929	9223372036854775807		
9223372036854775807		0				
	privvmpages	11478	49790	9223372036854775807		
9223372036854775807		0				
	shmpages	1292	2028	9223372036854775807		
9223372036854775807		0				
	dummy	0	0	9223372036854775807	9223372036854775807	
	0					
	numproc	102	121	9223372036854775807		
9223372036854775807		0				
	physpages	8158	15017	9223372036854775807		
9223372036854775807		0				
	vmguarpages	0	0	9223372036854775807		
9223372036854775807		0				
	oomguarpages	8167	15026	9223372036854775807		
9223372036854775807		0				
	numtcpsock	9	14	9223372036854775807		
9223372036854775807		0				
	numflock	1	6	9223372036854775807	9223372036854775807	
	0					
	numpty	2	2	9223372036854775807	9223372036854775807	
	0					
	numsiginfo	1	872	9223372036854775807		
9223372036854775807		0				
	tcpsndbuf	848056	1379048	9223372036854775807		
9223372036854775807		0				
	tcprcvbuf	993320	1592016	9223372036854775807		
9223372036854775807		0				
	othersockbuf	62424	84352	9223372036854775807		
9223372036854775807		0				

```

dgramrcvbuf          0      430952 9223372036854775807
9223372036854775807    0
numothersock         62      82 9223372036854775807
9223372036854775807    0
dcachesize          1589698 1633831 9223372036854775807
9223372036854775807    0
numfile             2262    3261 9223372036854775807
9223372036854775807    0
dummy                0      0 9223372036854775807 9223372036854775807
0
dummy                0      0 9223372036854775807 9223372036854775807
0
dummy                0      0 9223372036854775807 9223372036854775807
0
numiptent            1438    1462 9223372036854775807
9223372036854775807    0

```

vzmemcheck

Output values in %

LowMem	LowMem	RAM	MemSwap	MemSwap	Alloc	Alloc	Alloc
util	commit	util	util	commit	util	commit	limit
1.99	10.06	23.06	15.62	3.33	19.53	3.33	52.01

uptime

19:08:12 up 13 days, 1:50, 2 users, load average: 1.78, 1.43, 1.49

If there are some UBC errors, please point to them, as I'm relatively new to OpenVZ in general.

Subject: Re: Strange memory usage patterns...

Posted by [rpmarrriott](#) on Wed, 03 Jun 2009 10:50:41 GMT

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Did you ever get anywhere with this, I'm having the same problems.

Subject: Re: Strange memory usage patterns...

Posted by [Wildy](#) on Wed, 03 Jun 2009 12:52:42 GMT

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What kernel version do you have?

What are your UBC values?
