
Subject: Re: mem limit does not work... ?

Posted by [disaster](#) on Sun, 19 Feb 2006 10:26:10 GMT

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Quote:

1. can you please provide /proc/user_beancounters and a script?...

No Problem - here are the details:

user_beancounters before script:

cat /proc/user_beancounters

Version: 2.5

| uid | resource | held | maxheld | barrier | limit | failcnt |
|-----|--------------|--------|---------|----------|----------|---------|
| 4: | kmemsize | 434432 | 477994 | 13107200 | 13107200 | 0 |
| | lockedpages | 0 | 0 | 32 | 32 | 0 |
| | privvmpages | 3915 | 5868 | 32768 | 32768 | 0 |
| | shmpages | 640 | 656 | 8192 | 8192 | 0 |
| | dummy | 0 | 0 | 0 | 0 | |
| | numproc | 7 | 8 | 65 | 65 | 0 |
| | physpages | 945 | 945 | 32768 | 32768 | 0 |
| | vmguarpages | 0 | 0 | 32768 | 32768 | 0 |
| | oomguarpages | 945 | 945 | 32768 | 32768 | 0 |
| | numtcpsock | 2 | 2 | 80 | 80 | 0 |
| | numflock | 1 | 2 | 100 | 110 | 0 |
| | numpty | 1 | 1 | 16 | 16 | 0 |
| | numsiginfo | 0 | 1 | 256 | 256 | 0 |
| | tcpsndbuf | 2224 | 8896 | 319488 | 524288 | 0 |
| | tcprcvbuf | 0 | 4272 | 319488 | 524288 | 0 |
| | othersockbuf | 2224 | 7200 | 132096 | 336896 | 0 |
| | dgramrcvbuf | 0 | 4272 | 132096 | 132096 | 0 |
| | numothersock | 1 | 5 | 80 | 80 | 0 |
| | dcachesize | 91840 | 94136 | 1048576 | 1097728 | 0 |
| | numfile | 86 | 90 | 2048 | 2048 | 0 |
| | dummy | 0 | 0 | 0 | 0 | |
| | dummy | 0 | 0 | 0 | 0 | |
| | dummy | 0 | 0 | 0 | 0 | |
| | numiptent | 4 | 4 | 128 | 128 | 0 |

My Script - you don't like... and this time with top output

```
perl -e '$a="a";for(;;) {$a.=$a; print "allocated ".int(length($a)/1024/1024)."MB\n";}'
allocated 0MB
allocated 0MB
allocated 0MB
allocated 0MB
```

allocated 0MB
 allocated 0MB
 allocated 0MB
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 allocated 0MB
 allocated 0MB
 allocated 0MB
 allocated 0MB
 allocated 0MB
 allocated 1MB
 allocated 2MB
 allocated 4MB
 allocated 8MB
 allocated 16MB
 allocated 32MB
 allocated 64MB
 allocated 128MB
 allocated 256MB
 allocated 512MB
 allocated 1024MB
 Out of memory!

Top Output

Mem: 2071904k total, 1067136k used, 1004768k free, 10272k buffers
 Swap: 1437776k total, 0k used, 1437776k free, 46148k cached

| PID | USER | PR | NI | VIRT | RES | SHR | S | %CPU | %MEM | TIME+ | Command |
|-----|------|----|----|------|-----|-----|---|------|------|-------|---------|
|-----|------|----|----|------|-----|-----|---|------|------|-------|---------|

| | | | | | | | | | | | |
|------|------|----|---|-------|------|------|---|------|------|---------|------|
| 4544 | root | 25 | 0 | 1027m | 878m | 2576 | R | 94.0 | 43.4 | 0:09.74 | perl |
|------|------|----|---|-------|------|------|---|------|------|---------|------|

As you can see, there is a total of 1GB RAM and perl eats 43% which is about 800MB the res 200MB are used from normal system.

user_beancounters after script start

cat /proc/user_beancounters

Version: 2.5

| uid | resource | held | maxheld | barrier | limit | failcnt |
|-----|-------------|--------|---------|----------|----------|---------|
| 4: | kmemsize | 434432 | 1485574 | 13107200 | 13107200 | 0 |
| | lockedpages | 0 | 0 | 32 | 32 | 0 |

| | | | | | |
|--------------|-------|--------|---------|---------|----|
| privvmpages | 1621 | 263957 | 32768 | 32768 | 10 |
| shmpages | 640 | 656 | 8192 | 8192 | 0 |
| dummy | 0 | 0 | 0 | 0 | |
| numproc | 7 | 8 | 65 | 65 | 0 |
| physpages | 946 | 263318 | 32768 | 32768 | 0 |
| vmguarpages | 0 | 0 | 32768 | 32768 | 0 |
| oomguarpages | 946 | 263318 | 32768 | 32768 | 0 |
| numtcpsock | 2 | 2 | 80 | 80 | 0 |
| numflock | 1 | 2 | 100 | 110 | 0 |
| numpty | 1 | 1 | 16 | 16 | 0 |
| numsiginfo | 0 | 1 | 256 | 256 | 0 |
| tcpsndbuf | 2224 | 8896 | 319488 | 524288 | 0 |
| tcprcvbuf | 0 | 4272 | 319488 | 524288 | 0 |
| othersockbuf | 2224 | 7200 | 132096 | 336896 | 0 |
| dgramrcvbuf | 0 | 4272 | 132096 | 132096 | 0 |
| numothersock | 1 | 5 | 80 | 80 | 0 |
| dcachesize | 91840 | 94136 | 1048576 | 1097728 | 0 |
| numfile | 86 | 90 | 2048 | 2048 | 0 |
| dummy | 0 | 0 | 0 | 0 | |
| dummy | 0 | 0 | 0 | 0 | |
| dummy | 0 | 0 | 0 | 0 | |
| numiptent | 4 | 4 | 128 | 128 | 0 |

Quote:

2. failct=4 and messages like:

Fatal resource shortage: kmemsize, UB 4.

mean that you hit kmemsize limit 4 times.

Sorry but failcnt is at privvmpages not at kmemsize (at kmemsize only in my example before...).

Quote:

3. messages like:

Uncharging too much 1 h 0, res unused_privvmpages ub 4

mean that there is some discrepancy in privvmpages accounting.

This is why I would be happy to your script which reproduces this problem.

No problem - you have the small one line script above...

I would be happy if you can help me - if you need anything - write it down - i'll do that.

Thanks!