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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        | 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        | 0       |   |
| dummy        | 0      | 0       | 0        | 0        | 0       |   |
| dummy        | 0      | 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  
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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       | 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       | 0  |
| dummy        | 0     | 0      | 0       | 0       | 0  |
| dummy        | 0     | 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!