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Subject: How to reset the failcount (failcnt) in /dev/user\_beancounters ?

Posted by [bjmg](#) on Wed, 15 Mar 2006 11:33:37 GMT

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Hi,

How can I reaset the failcount in /dev/user\_beancounters ?

In previous cases I just restarted the hardware node to be sure that everything is in a defined state.

Because this time I have to do this on a production system I don't want to reboot the hardware node. I hope there is another way to do this without even restarting any of the VPSs. If so, please explain it to me (or just say it is described in document X).

Bernhard

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Subject: Re: How to reset the failcount (failcnt) in /dev/user\_beancounters ?

Posted by [kir](#) on Wed, 15 Mar 2006 12:05:09 GMT

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AFAIK there is no way to reset failcnt in /proc/user\_beancounters without restarting an appropriate VPS. This is actually a valid behaviour since there can be many different programs reading those values, and they should not expect those values to suddenly go down to zero.

So what you should do is to collect the current values and later check against them. For the 'problematic' VPSs I usually employ a cron job which periodically cats /proc/user\_beancounters to a file, together with a timestamp.

A simple shell script can also be written to mail a sysadmin about "bad" changes in /proc/user\_beancounters.

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Subject: Re: How to reset the failcount (failcnt) in /dev/user\_beancounters ?

Posted by [bjmg](#) on Wed, 15 Mar 2006 12:17:25 GMT

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A simple restart of the VPS does not work. The failcounts are still on the same level. Anyway I'll just write a script that reports changes on failcounts to me.

Bernhard

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Subject: Re: How to reset the failcount (failcnt) in /dev/user\_beancounters ?

Posted by [kir](#) on Wed, 15 Mar 2006 12:56:00 GMT

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Quote:A simple restart of the VPS does not work.

That tells that there is some UBC leak (incorrect counting). What kernel are you using? Do you have some strange messages from the kernel? Can you post the output of /proc/user\_beancounters for the given VPS when this VPS is stopped (some 'usage' counters should be > 0, thus failcnt is not being reset).

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Subject: Re: How to reset the failcount (failcnt) in /dev/user\_beancounters ?  
Posted by [bjmg](#) on Wed, 15 Mar 2006 13:35:58 GMT  
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Here is the data:

user\_beancounters (before stop of VPS 22114):

```
22114: kmemsize      8006290 12162801 131972572 145169828 20533210
lockedpages         0         0    6442    6442     0
privvmpages        84085    112592   144989   159487     0
shmpages           671      1978    14498    14498     0
dummy              0         0         0         0         0
numproc            113      183     5332     5332     24
physpages         37958    65609         0 2147483647     0
vmguarpages        0         0   144989 2147483647     0
oomguarpages       39682    66342   144989 2147483647     0
numtcpsock         30        127     5332     5332    1347
numflock           13        31    1000    1100     0
numpty             2         5     512     512     0
numsiginfo         0         50    1024    1024     0
tcpsndbuf          31192   739696 22150986 43990858   1549
tcpvbuf            2228   300780 22150986 43990858     0
othersockbuf       187152  430392 11075492 32915364     0
dgramrcvbuf        0   169328 11075492 11075492     0
numothersock       153      193     5332     5332     0
dcachesize         357099  466733 28811184 29675520     0
numfile            1084    1593   51520   51520     0
dummy              0         0         0         0         0
dummy              0         0         0         0         0
dummy              0         0         0         0         0
numiptent          143     143     200     200     0
```

user\_beancounters (after stop of VPS 22114)

```
22114: kmemsize      1177 12162801 131972572 145169828 20533210
lockedpages         0         0    6442    6442     0
privvmpages         0    112592   144989   159487     0
shmpages            0      1978    14498    14498     0
dummy              0         0         0         0         0
numproc            0      183     5332     5332     24
```

physpages	0	65609	0	2147483647	0
vmguarpages	0	0	144989	2147483647	0
oomguarpages	14	66342	144989	2147483647	0
numtcpsock	0	127	5332	5332	1347
numflock	0	31	1000	1100	0
numpty	0	5	512	512	0
numsiginfo	0	50	1024	1024	0
tcpsndbuf	0	739696	22150986	43990858	1549
tcprcvbuf	0	300780	22150986	43990858	0
othersockbuf	0	430392	11075492	32915364	0
dgramrcvbuf	0	169328	11075492	11075492	0
numothersock	0	193	5332	5332	0
dcachesize	0	466733	28811184	29675520	0
numfile	0	1593	51520	51520	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
numiptent	0	143	200	200	0

user\_beancounters (after start of VPS 22114):

22114: kmemsize	6021807	12162801	131972572	145169828	20533210
lockedpages	0	0	6442	6442	0
privvmpages	67938	112592	144989	159487	0
shmpages	26	1978	14498	14498	0
dummy	0	0	0	0	0
numproc	87	183	5332	5332	24
physpages	24228	65609	0	2147483647	0
vmguarpages	0	0	144989	2147483647	0
oomguarpages	24242	66342	144989	2147483647	0
numtcpsock	20	127	5332	5332	1347
numflock	16	31	1000	1100	0
numpty	0	5	512	512	0
numsiginfo	0	50	1024	1024	0
tcpsndbuf	33420	739696	22150986	43990858	1549
tcprcvbuf	0	300780	22150986	43990858	0
othersockbuf	158188	430392	11075492	32915364	0
dgramrcvbuf	0	169328	11075492	11075492	0
numothersock	138	193	5332	5332	0
dcachesize	345619	466733	28811184	29675520	0
numfile	912	1593	51520	51520	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
dummy	0	0	0	0	0
numiptent	143	143	200	200	0

uname:

Linux master.mediadesign-gruen.de 2.6.8-022stab070.1-enterprise #1 SMP Mon Feb 20 19:31:28  
MSK 2006 i686 athlon i386 GNU/Linux

This is an excerpt of dmesg output:  
(not only from that stop - start event but all relevant infos I found)

VPS: 22114: started  
Unable to load interpreter  
Unable to load interpreter  
Unable to load interpreter  
VPS: 22114: stopped

...  
VPS: 22114: started  
Fatal resource shortage: numiptent, UB 22114.  
Fatal resource shortage: numiptent, UB 22114.  
Fatal resource shortage: numiptent, UB 22114.  
Fatal resource shortage: numiptent, UB 22114.  
VPS: 22114: stopped

...  
VPS: 22114: started  
Out of socket memory  
Out of socket memory  
Out of socket memory  
Out of socket memory  
Out of socket memory  
VPS: 22114: stopped

...  
VPS: 22114: started  
TCP: time wait bucket table overflow  
TCP: time wait bucket table overflow  
TCP: time wait bucket table overflow  
TCP: time wait bucket table overflow  
VPS: 22114: stopped

...  
...  
TCP: time wait bucket table overflow  
TCP: time wait bucket table overflow  
TCP: time wait bucket table overflow  
TCP: time wait bucket table overflow  
TCP: too many of orphaned sockets  
TCP: too many of orphaned sockets  
TCP: too many of orphaned sockets  
TCP: too many of orphaned sockets  
TCP: too many of orphaned sockets

TCP: too many of orphaned sockets  
VPS: 22114: stopped  
VPS: 22114: started  
[no problem memory problems since that point - but still high failcount]  
...  
VPS: 22114: stopped  
VPS: 22114: started  
[this is the restart I did for getting the infos above]

I hope this helps debugging it.  
I can also provide a psaux output (with VPS 22114 stoped).

Bernhard

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Subject: Re: How to reset the failcount (failcnt) in /dev/user\_beancounters ?  
Posted by [kir](#) on Wed, 15 Mar 2006 14:23:34 GMT  
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Thanks for the response!

Apparently, as a neighbour kernel hacker just explained me, this is not a bug.

The problem is tcp time wait buckets are still there after VPS is stopped, thus we are having >0 kmemsize. They should go away after a timeout (5 minutes or so), after that kmemsize will be set (zeroed) and fail counters should be reset to zero.

'oomguarpages > 0' is known bug; the good thing is fail counters will be reset even with oomguarpages > 0.

So, you have two options

- (1) stop VPS and wait 5 minutes or so
  - (2) check the difference of failcnts, not their absolute values.
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Subject: Re: How to reset the failcount (failcnt) in /dev/user\_beancounters ?  
Posted by [kir](#) on Thu, 13 Jul 2006 08:03:01 GMT  
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The info from this thread has been summarized at wiki: UBC failcnt reset.

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