

RE: %cpu in system – squid performance in FreeBSD 5.3

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/net/2004-12/0313.html>

From: Jeff Behl (jbehl_at_fastclick.com)

Date: 12/23/04

Date: Thu, 23 Dec 2004 10:09:14 -0800

To: <freebsd-performance@freebsd.org>, <freebsd-net@freebsd.org>

As a follow up to the below (original message at the very bottom), I installed a load balancer in front of the machines which terminates the tcp connections from clients and opens up a few, persistent connections to each server over which requests are pipelined. In this scenario everything is copasetic:

last pid: 3377; load averages: 0.12, 0.09, 0.08

up 0+17:24:53 10:02:13

31 processes: 1 running, 30 sleeping

CPU states: 5.1% user, 0.0% nice, 1.8% system, 1.2% interrupt, 92.0%

idle

Mem: 75M Active, 187M Inact, 168M Wired, 40K Cache, 214M Buf, 1482M Free

Swap: 4069M Total, 4069M Free

```
PID USERNAME PRI NICE SIZE RES STATE C TIME WCPU CPU
COMMAND
```

```
474 squid 96 0 68276K 62480K select 0 53:38 16.80% 16.80%
squid
```

```
311 bind 20 0 10628K 6016K kserel 0 12:28 0.00% 0.00%
named
```

It's actually so good that one machine can now handle all traffic (around 180 Mb/s) at < %50 cpu utilization. Seems like something in the network stack is responsible for the high %system cpu util...

jeff

-----Original Message-----

From: owner-freebsd-performance@freebsd.org

[<mailto:owner-freebsd-performance@freebsd.org>] On Behalf Of Jeff Behl

Sent: Tuesday, December 07, 2004 9:17 AM

To: Sean Chittenden

Cc: freebsd-performance@freebsd.org

Subject: Re: %cpu in system – squid performance in FreeBSD 5.3

RE: %cpu in system – squid performance in FreeBSD 5.3

freebsd-net: RE: %cpu in system – squid performance in FreeBSD 5.3

I upgraded to STABLE but most cpu time is still being spent in system.

This system is doing ~20Mb/s total with all content being grabbed out of memory. I see similar results when running MySQL (a lot of time being spent in system)

Any ideas on what updates to be on the lookout for that might help with this? Am I right in guessing that this is a SMP issue and doesn't have anything to do with AMD architecture?

thx

FreeBSD www2 5.3-STABLE FreeBSD 5.3-STABLE #2: Sun Dec 5 21:06:14 PST 2004 root@www2.cdn.sjc:/usr/obj/usr/src/sys/SMP amd64

last pid: 15702; load averages: 0.15, 0.31, 0.31 up
0+19:55:14 09:09:28
38 processes: 2 running, 36 sleeping
CPU states: 5.4% user, 0.0% nice, 12.7% system, 3.4% interrupt, 78.4% idle
Mem: 163M Active, 284M Inact, 193M Wired, 72K Cache, 214M Buf, 1245M Free
Swap: 4069M Total, 4069M Free

```
PID USERNAME PRI NICE SIZE RES STATE C TIME WCPU CPU
COMMAND
 486 squid 96 0 79820K 73996K CPU1 1 110:00 15.04% 15.04%
squid
 480 squid 96 0 75804K 70012K select 0 105:56 14.89% 14.89%
squid
```

Sean Chittenden wrote:

```
>> but the % system time can fluctuate up to 60 at times. My question
>> is if this is about the type of performance I could expect, or if
>> people have seen better.
>
>
> I don't know about other people, but I suspect you're running into
> lock contention. Try using a post 5.3 snapshot (something from
> RELENG_5) since alc@ has set debug.mpsafevm=1, which lets many calls
> to the VM run without GIANT, which I suspect is your problem and why
> the system usage is all over the place. -sc
>
```

freebsd-performance@freebsd.org mailing list
<http://lists.freebsd.org/mailman/listinfo/freebsd-performance>
To unsubscribe, send any mail to
"freebsd-performance-unsubscribe@freebsd.org"

RE: %cpu in system – squid performance in FreeBSD 5.3

freebsd-net: RE: %cpu in system – squid performance in FreeBSD 5.3

howdy,

I've got a dual proc AMD64 (2GHz) FreeBSD 5.3R system running two squid processes (to take advantage of both CPUs). Each process is doing around 195 req/s, and the total bandwidth is ~40Mb/s (gig nic via bge driver). Squid is being used exclusively as a reverse proxy, with all content being served out of memory (very little disk activity).

Top shows:

CPU states: 16.0% user, 0.0% nice, 42.7% system, 7.6% interrupt, 33.6% idle

Mem: 898M Active, 569M Inact, 179M Wired, 214M Buf, 171M Free

Swap: 4069M Total, 4069M Free

```
PID USERNAME PRI NICE SIZE RES STATE C TIME WCPU CPU COMMAND
14598 squid 108 0 463M 459M select 0 39.2H 59.96% 59.96% squid
14605 squid 105 0 421M 416M CPU0 1 38.4H 49.95% 49.95% squid
```

but the % system time can fluctuate up to 60 at times. My question is if this is about the type of performance I could expect, or if people have seen better. I was expecting to see much better performance, seeing how everything is being served out of memory, but maybe I'm asking too much? 400 reqs/s from RAM doesn't seem like much. Is this a FreeBSD issue (anybody else with similar experience)? A majority of the cpu time being spent in system would seem to indictate such. What is all the system load? How can i tell?

Any help/pointers/remarks appreciated

thanks,
jeff

freebsd-net@freebsd.org mailing list

<http://lists.freebsd.org/mailman/listinfo/freebsd-net>

To unsubscribe, send any mail to "freebsd-net-unsubscribe@freebsd.org"