

## Re: Reducing load for LAMP app?

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*Source:* <http://coding.derkeiler.com/Archive/PHP/comp.lang.php/2008-01/msg00456.html>

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- *From:* Jerry Stuckle <jstucklex@xxxxxxxxxxxxxx>
  - *Date:* Mon, 07 Jan 2008 07:46:53 -0500
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Gilles Ganault wrote:

On Sun, 06 Jan 2008 20:47:11 -0500, Jerry Stuckle <jstucklex@xxxxxxxxxxxxxx> wrote:

The training E is not in the number – that's how very small floating point numbers are displayed.

I'll look at how to format the output of `Microtime()` so it's displayed as seconds instead:

```
=====
$start_time = microtime(true);
$end_time = microtime(true); $total_time = $end_time - $start_time;
print "Using microtime() as-is : $total_time<p>";

$starttimer = time()+microtime();
$stoptimer = time()+microtime();
$timer = round($stoptimer-$starttimer,4);
echo "Using Time + Microtime() : $timer";
=====
Using microtime() as-is : 2.6941299438477E-5

Using Time + Microtime() : 0.2018
=====
```

Which is incorrect.

2.6941299438477E-5 is standard scientific notation for display of very large or very small numbers. In this case, the actual value would be:

0.000026941299438477 seconds – about 27 microseconds.

Another point here is that floating point numbers have up to 15 significant digits (actual digits, not decimal places). When you add `time()` to it, you're adding 9 digits to the left – which only leaves you with six to the right of the decimal point.

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So for several reasons your "fix" breaks more than it fixes.

The real question would be if this is normal, a peak – or maybe a lull in the traffic. In the last case it could be a problem.

It's peak time. He had about 400 users logged on, with an unknown number of guests lurking, which is the highest number he ever had.

OK, that's bad, but it's not as bad as if it were off-peak :-)

And yes, the CPU usage is high, but not necessarily that high.

The reason I thought it was a problem, is that this article on "top" says that "load average" should not be much higher than 4, ie. 4 times the amount of processes per processor (it's a single-CPU host):

YMMV. So that means you should only be running 4 processes. MySQL and Apache will each run more than that when they're not doing anything.

So you need to dig deeper. Most of your processes are sitting idle – and that 4:1 ratio could be valid for active tasks. Also, this can be affected by other problems – such as lack of memory slowing things down.

"The higher the number for load average, the more likely your system is starting to suffer under an excessive load. As the saying goes, your mileage may vary, but I tend to think of anything under four as acceptable. Any higher and it starts feeling slow. I've seen systems running around 15 to 20 and let me tell you, it's ugly."

<http://www.linuxjournal.com/article/5309>

Sure, and I've seen systems running around 15 to 20 and they've been doing fine. As he says – YMMV. It's only part of the equation. But it is something you need to include in the equation.

I'm really wondering if your host is trying to put too many people on your server. Monitoring the results of top over a period of time will help show you.

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If it helps, it's very responsive with about 200 users logged on, but it crawls to a halt with 400.

Yes, that definitely helps. What does top show when you've only got 200 users? It's the comparisons I look for, not actual numbers.

Generally speaking, and considering the number of web apps being written these days, especially in LAMP, I'm surprised Google didn't return an article on what to do to investigate a slow web application.

Thanks.

Yep, I agree.

But at this point it doesn't look like you've got a PHP problem. I'd suggest you follow up in the Linux admin groups – where the experts hang out. Most of us here know just enough Linux admin to get ourselves into trouble :-)

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