
Subject: Re: L2 network namespace benchmarking (resend with Service Demand)
Posted by [ebiederm](#) on Fri, 06 Apr 2007 14:25:48 GMT

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Benjamin Thery <benjamin.thery@bull.net> writes:

> Eric W. Biederman wrote:

>> A couple of random thoughts in trying to understand the numbers you are
>> seeing.

>>

>> - Checksum offloading?

>>

>> You have noted that with the bridge netfilter support disabled you
>> are still seeing additional checksum overhead. Just like you are
>> seeing in the routing case.

>>

>> Is it possible the problem is simply that etun doesn't support
>> checksum offloading, while your normal test hardware does?

>

> Looks like you are 100% correct.

> I feel a bit stupid I didn't think about this "small" difference between real
> NIC and etun.

>

> If I turn off checksum offloading on my physical NIC, the checksum "overhead"
> (load) measured by oprofile is about the same in both case: when running netperf
> through a real NIC or through an etun tunnel first.

Interesting. You can also 'enable' checksum offloading when using etun with ethtool. Which should just tell the kernel not to do checksumming. A bad idea in general but it might be useful in confirming where the performance overhead is coming from, and when used with routing I believe it is safe. When used with bridging I don't know.

Thinking about it the ideal situation is to preserve `skb->ip_summed` if it came from another device, instead of unconditionally setting it. I need to take a good hard look at `etun_xmit` and make certain we are dotting all of the i's and crossing all of the t's for best performance and compatibility with the rest of the network stack.

Eric

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