
Subject: Re: L2 network namespace benchmarking
Posted by [Daniel Lezcano](#) on Wed, 28 Mar 2007 19:47:54 GMT
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Rick Jones wrote:

>> If I read the results right it took a 32bit machine from AMD with
>> a gigabit interface before you could measure a throughput difference.
>> That isn't shabby for a non-optimized code path.
>
> Just some paranoid ramblings - one needs to look beyond just whether
> or not the performance of a bulk transfer test (eg TCP_STREAM) remains
> able to hit link-rate. One has to also consider the change in service
> demand (the normalization of CPU util and throughput). Also, with
> functionality like TSO in place, the ability to pass very large things
> down the stack can help cover for a multitude of path-length sins.
> And with either multiple 1G or 10G NICs becoming more and more
> prevalent, we have another one of those "NIC speed vs CPU speed"
> switch-overs, so maintaining single-NIC 1 gigabit throughput, while
> necessary, isn't (IMO) sufficient.
>
> Soooo, it becomes very important to go beyond just TCP_STREAM tests
> when evaluating these sorts of things. Another test to run would be
> the TCP_RR test. TCP_RR with single-byte request/response sizes will
> "bypass" the TSO stuff, and the transaction rate will be more directly
> affected by the change in path length than a TCP_STREAM test. It will
> also show-up quite clearly in the service demand. Now, with NICs
> doing interrupt coalescing, if the NIC is strapped "poorly" (IMO) then
> you may not see a change in transaction rate - it may be getting
> limited artificially by the NIC's interrupt coalescing. So, one has to
> fall-back on service demand, or better yet, disable the interrupt
> coalescing.
>
> Otherwise, measuring peak aggregate request/response becomes necessary.
>
>
> rick jones
> don't be blinded by bit-rate

Thanks Rick,

Do you have any pointer to help on benchmarking the network, perhaps a
checklist or some scripts for netperf ?

Regards.
-- Daniel

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