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 guite 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 artifically 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.
- > > ri
- > 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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