Ib_read_lat and wireshark related

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Ib_read_lat experiments:

By using blktrace, we got an average 4K pagefault latency is about 6.5 microsecond [Q2C].
By using Ib_read_lat, we got the latency 2.04 microsecnod from verb API to hardware device.

Ib_read_lat:

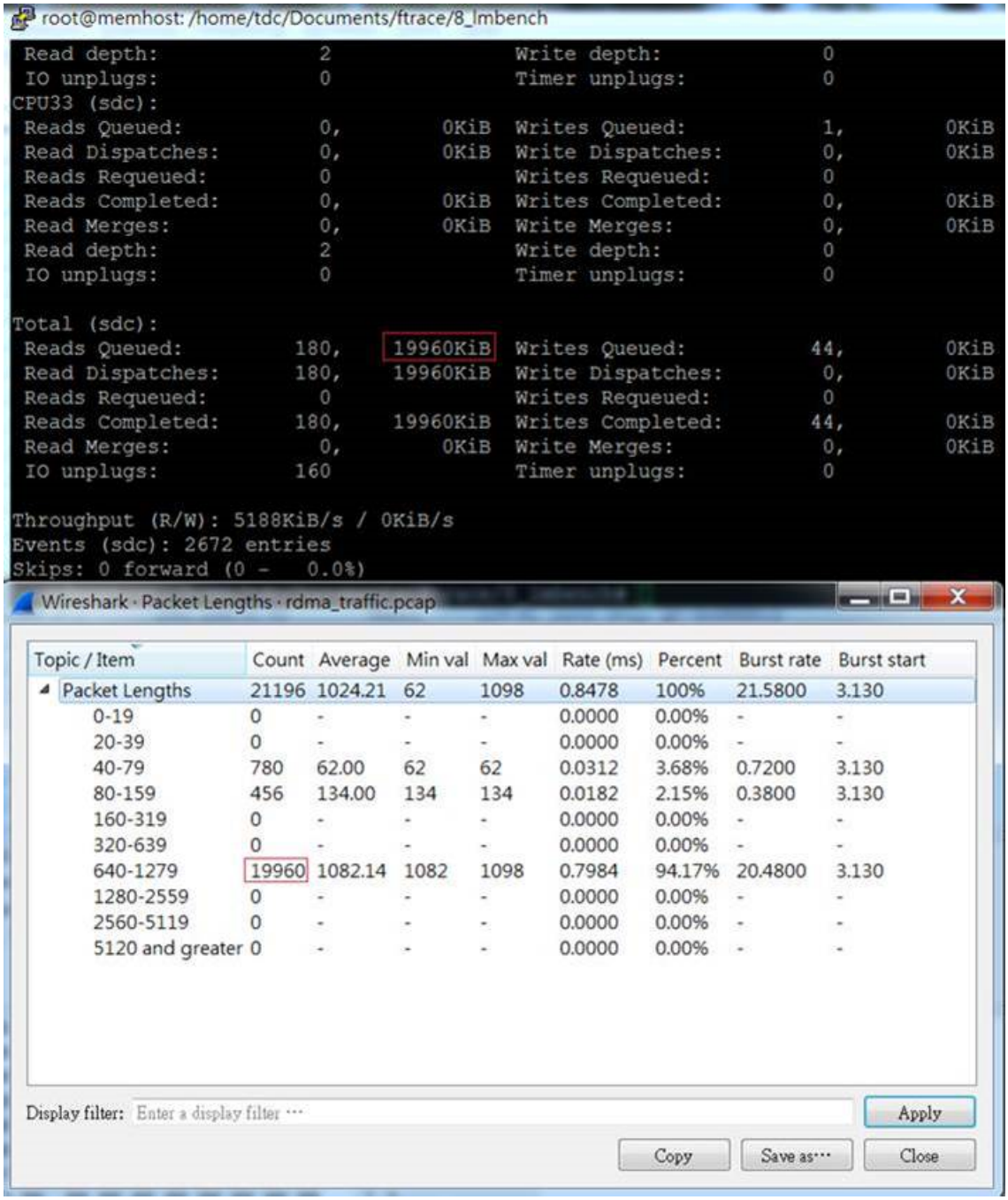
https://community.mellanox.com/s/article/perftest-package
https://github.com/lsgunth/perftest/tree/master/src

The RDMA read/write transection is one-side and sent/receive is two-side. The source code is using the read/write transection.

if one side RDMA configuration, we agree the above breakdown.
if the configuration is two-side, the call stack for verb API will be executed for four times. The 2 microsecond will be not accuracy.

Wireshark:

The data sizes are matched between wireshark and blktrace.


root@memhost: /home/tdc/Documents/ftrace/8_lmbench
Read depth: 2 Write depth: 0
IO unplugs: 0 Timer unplugs: 0
CPU33 (sdc):
Reads Queued: 0, 0KiB Writes Queued: 1, 0KiB
Read Dispatches: 0, 0KiB Write Dispatches: 0, 0KiB
Reads Requeued: 0 Writes Requeued: 0
Reads Completed: 0, 0KiB Writes Completed: 0, 0KiB
Read Merges: 0, 0KiB Write Merges: 0, 0KiB
Read depth: 2 Write depth: 0
IO unplugs: 0 Timer unplugs: 0
Total (sdc):
Reads Queued: 180, 19960KiB Writes Queued: 44, 0KiB
Read Dispatches: 180, 19960KiB Write Dispatches: 0, 0KiB
Reads Requeued: 0 Writes Requeued: 0
Reads Completed: 180, 19960KiB Writes Completed: 44, 0KiB
Read Merges: 0, 0KiB Write Merges: 0, 0KiB
IO unplugs: 160 Timer unplugs: 0
Throughput (R/W): 5188KiB/s / 0KiB/s
Events (sdc): 2672 entries
Skips: 0 forward (0 - 0.0%)
Wireshark · Packet Lengths · rdma_traffic.pcap
Topic / Item Count Average Min val Max val Rate (ms) Percent Burst rate Burst start
Packet Lengths 21196 1024.21 62 1098 0.8478 100% 21.5800 3.130
0-19 0 - - - 0.0000 0.00% - -
20-39 0 - - - 0.0000 0.00% - -
40-79 780 62.00 62 62 0.0312 3.68% 0.7200 3.130
80-159 456 134.00 134 134 0.0182 2.15% 0.3800 3.130
160-319 0 - - - 0.0000 0.00% - -
320-639 0 - - - 0.0000 0.00% - -
640-1279 19960 1082.14 1082 1098 0.7984 94.17% 20.4800 3.130
1280-2559 0 - - - 0.0000 0.00% - -
2560-5119 0 - - - 0.0000 0.00% - -
5120 and greater 0 - - - 0.0000 0.00% - -
Display filter: Enter a display filter ···
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Save as···
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