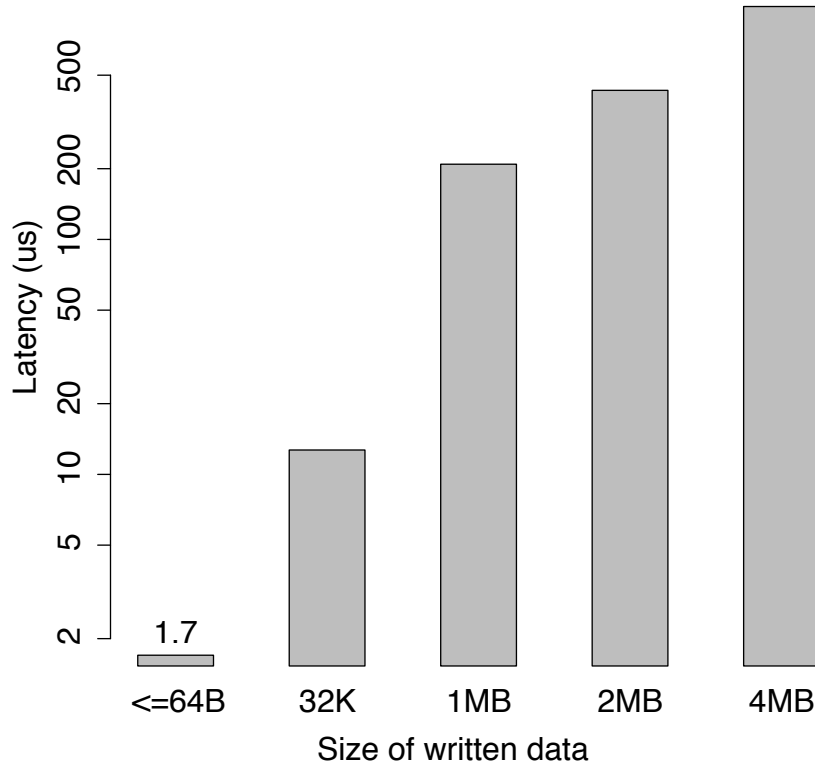


Firebox Network Benchmark

Ping pong latency (us) in Firebox v0



SockPerf Ping Pong Latency in Fbox

Without VMA*	4.8 us
With VMA	1.3 us

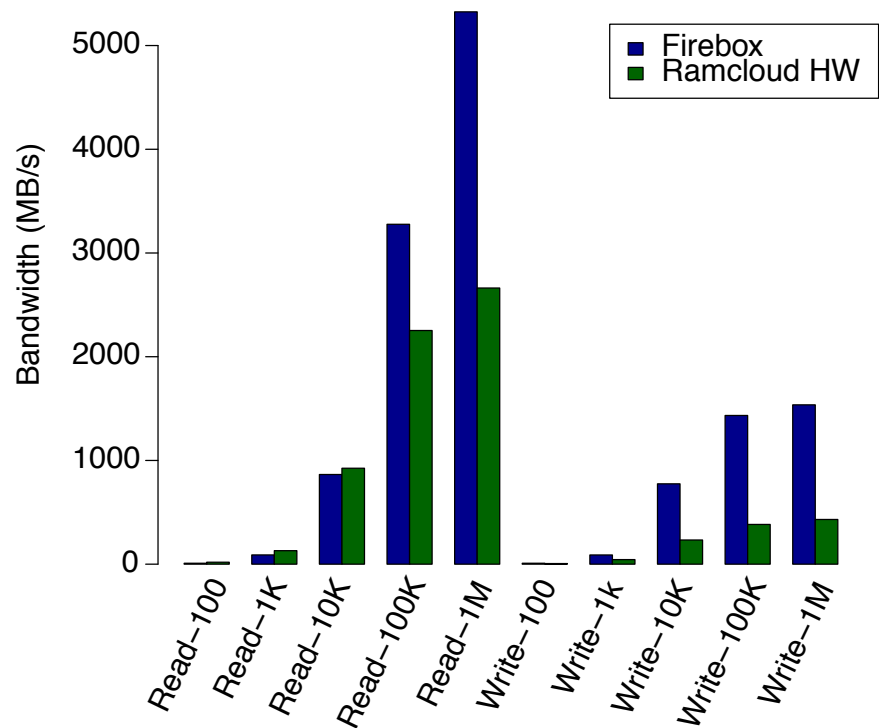
RDMA Ping Pong Latency

Firebox v0	1.7 us
Ramcloud HW	3.1 us

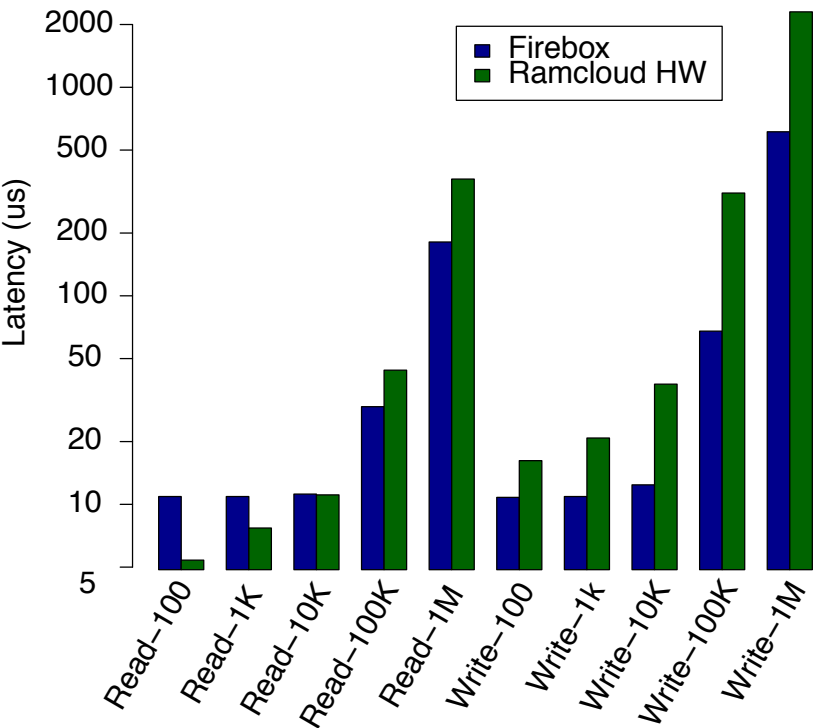
***VMA = Mellanox socket library with kernel bypass**

Ramcloud Read/Write benchmark (Bandwidth/latency)

Ramcloud Bandwidth Benchmark



Ramcloud Latency Benchmark (90th percentile) - Log scale



SSD vs PCIe Samsung Drives Benchmark

IO Ping Average Latency (us) Benchmark

PCIe	152
SSD	118

Buffered Reads Bandwidth (MB/s) Benchmark

PCIe	1135
SSD	435