**The following table describes the options to the ib\_write\_bw command and their** **purposes:**

**-p Uses the TCP port for initial synchronization.**

**-d Uses the InfiniBand device.**

**-i Uses the InfiniBand port.**

**-c Sets the connection type.**

**-m Sets the size of the MTU.**

**-g Specifies the number of posts for each queue pair in the chain.**

**-q Sets the number of queue pairs.**

**-s Sets the size of the message to exchange.**

**-a Runs all sizes, from 2 to 223.**

**-t Sets the size of the TX queue.**

**-n Performs iters message exchanges.**

**-I Sets the maximum message size to be sent in inline mode.**

**-b Measures bidirectional bandwidth.**

**-V Displays the version information.**

**-N Cancels the peak bandwidth calculation.**

**-F Does not fail, even if the cpufreq\_ondemand module is loaded.**

**RUNNING WITH IB\_WRITE\_BW Unidirectional**

**SERVER**

**ib\_write\_bw -a -F -d mlx5\_0**

**ib\_write\_bw -a --report\_gbits -F -d mlx5\_0**

Client

**ib\_write\_bw -a -F -d mlx5\_0 user@IP**

**ib\_write\_bw -a --report\_gbits -F -d mlx5\_0 user@IP**

**RUNNING WITH IB\_WRITE\_BW Bidirectional**

**SERVER**

**ib\_write\_bw -a -F -d mlx5\_0 -b**

**ib\_write\_bw -a --report\_gbits -F -d mlx5\_0 -b**

Client

**ib\_write\_bw -a -F -d mlx5\_0 -b user@IP**

**ib\_write\_bw -a --report\_gbits -F -d mlx5\_0 -b user@IP**

OSU\_Command

# mpirun --allow-run-as-root -np 2 --host node1,node2 -x UCX\_NET\_DEVICES=mlx5\_0:1 osu\_bibw -i 1000

# mpirun --allow-run-as-root -np 2 --mca rmaps\_base\_schedule\_policy slot --host node1,node2 osu\_bw -i 1000

# mpirun --allow-run-as-root -np 2 -mca ras\_gridengine\_verbose 1000 --host node1,node2 osu\_bw -i 1000 t\_connect

#mpirun --allow-run-as-root -np 2 --host node1,node2 osu\_bibw -i 1000

#mpirun --allow-run-as-root -np 2 --hostfile hostfile -pernode --map-by node -x UCX\_NET\_DEVICES=mlx5\_0:1 osu\_bibw -x 1000 -i 1000

# mpirun --allow-run-as-root -np 2 --hostfile hostfile -npernode 1 -x UCX\_NET\_DEVICES=mlx5\_0:1 osu\_bibw -x 1000 -i 1000

# mpirun --allow-run-as-root -np 2 -machinefile hostfile -pernode osu\_bw -i 1000

#mpirun --allow-run-as-root -np 2 -machinefile hostfile -pernode -x DISPLAY osu\_bw -i 1000

# mpirun --allow-run-as-root -np 2 --hostfile hostfile -npernode -x UCX\_NET\_DEVICES=mlx5\_0:1 osu\_bibw -x 1000 -i 1000