UDP Mode

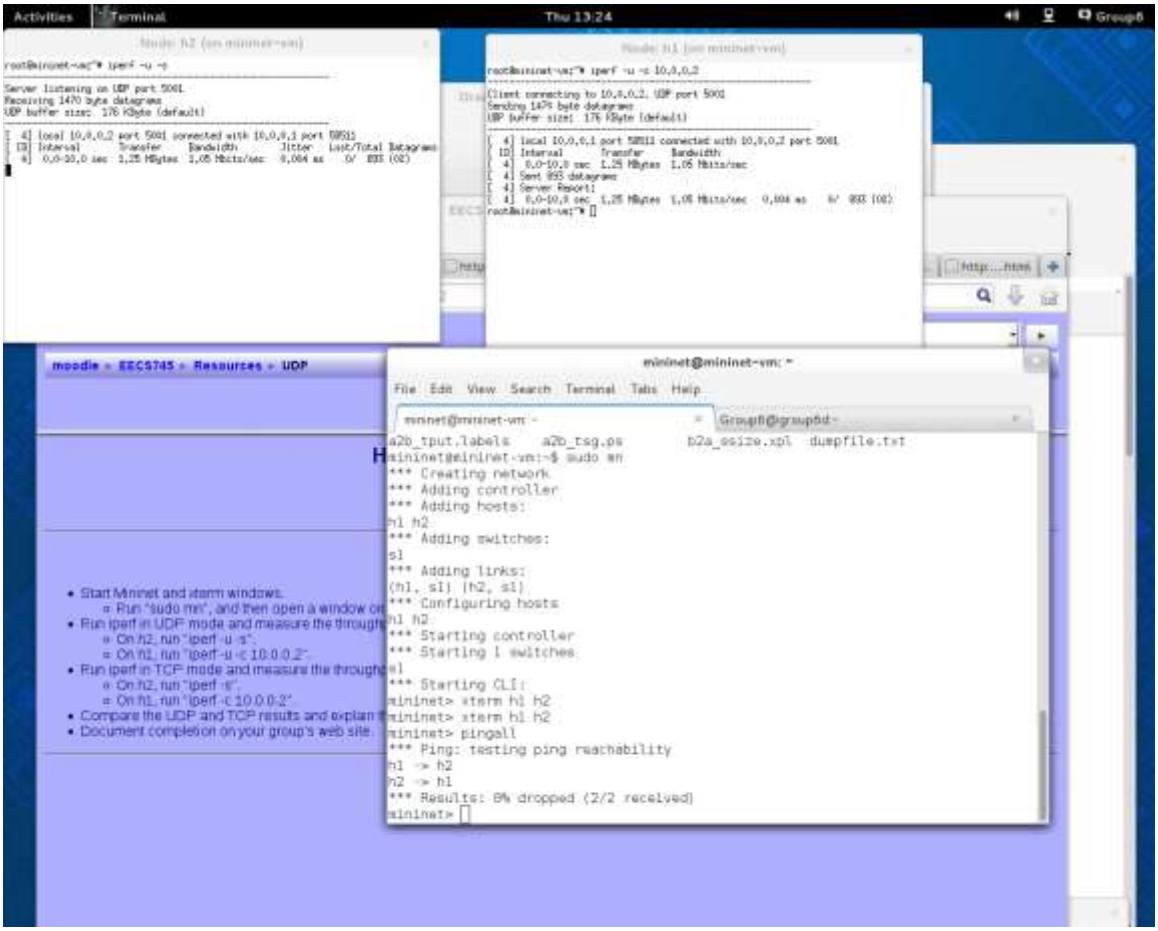
Run sudo mn

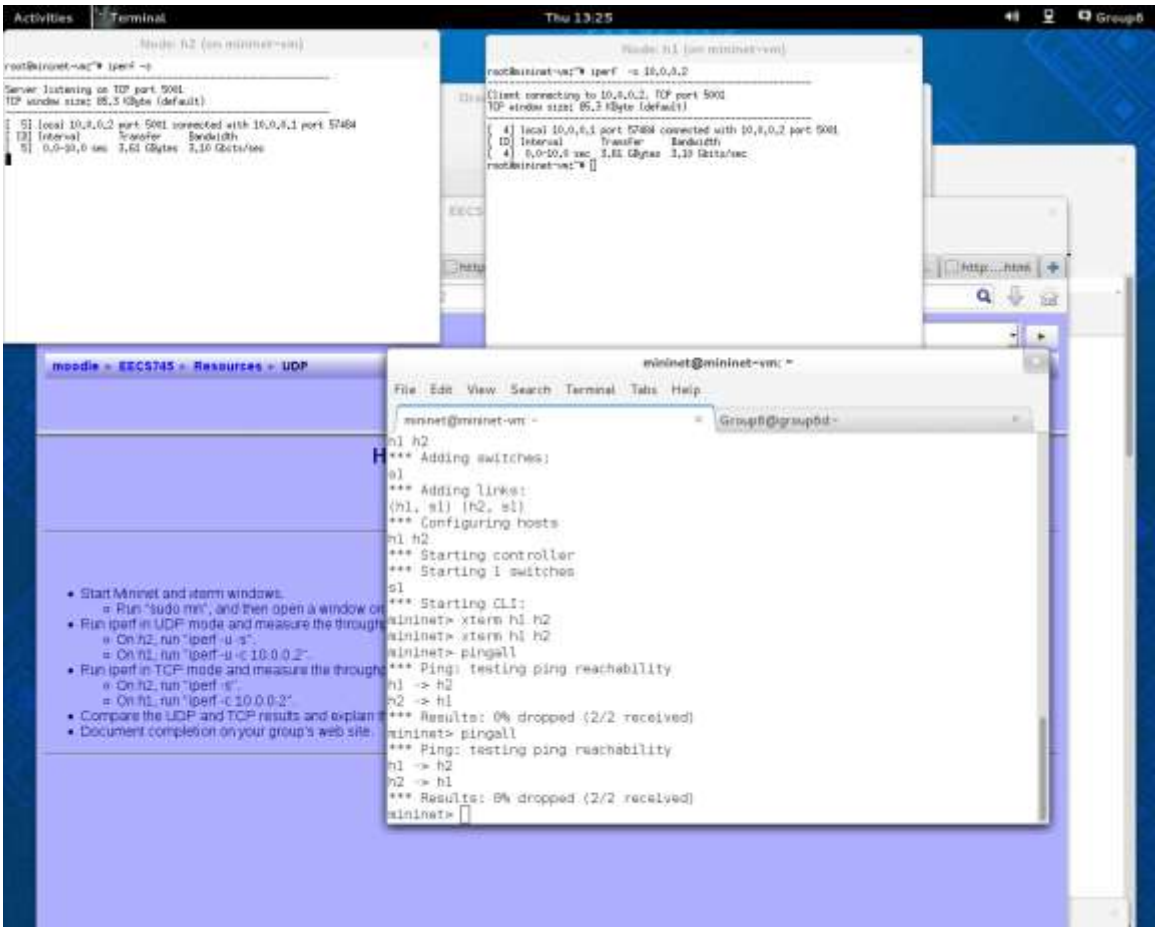
On h2, run "iperf -u -s".
On h1, run "iperf -u -c 10.0.0.2".

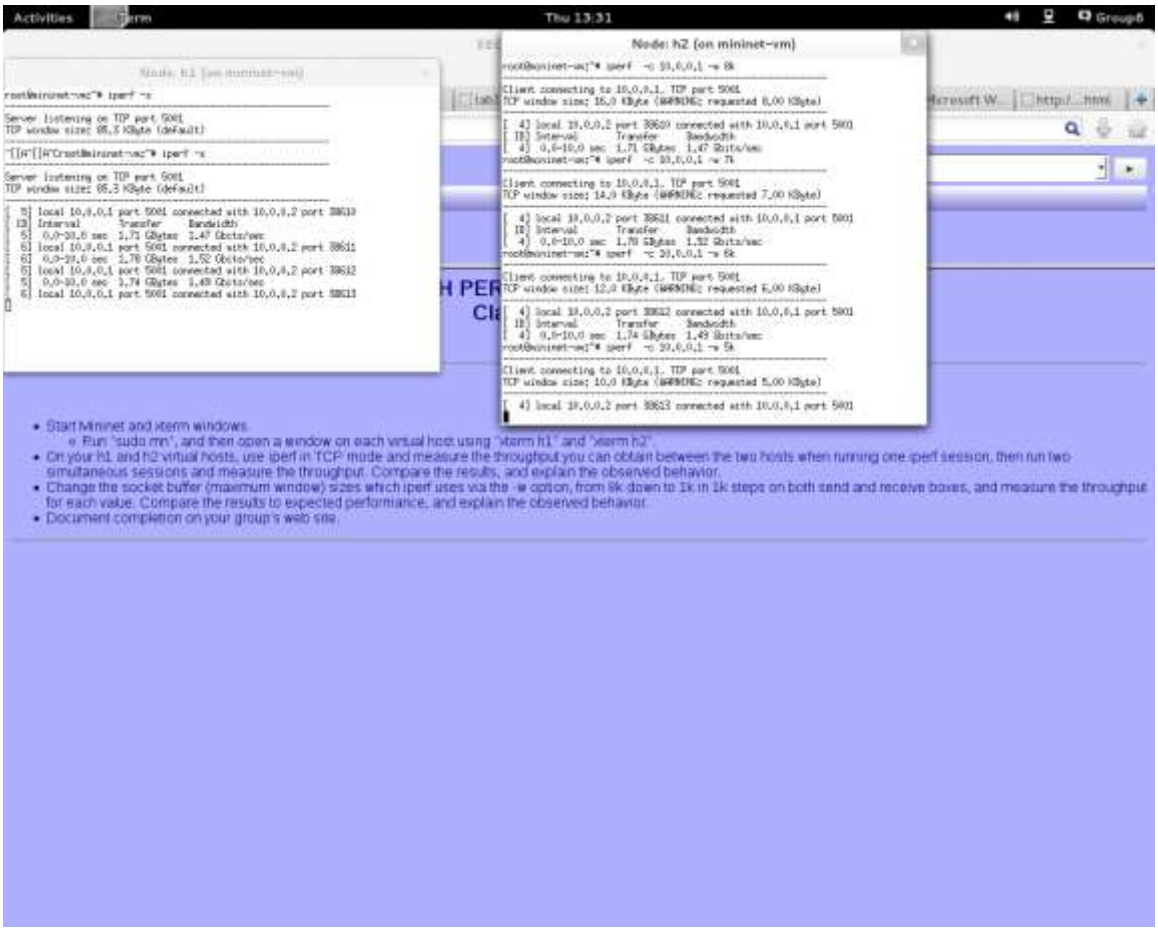
TCP Mode

Run sudo mn

On h2, run "iperf -s".
On h1, run "iperf -c 10.0.0.2".




Activities
Terminal
Thu 13:25
Group6
Server listening on TCP port 5001
TCP window size: 85.3 KByte (default)
[5] local 10.0.0.2 port 5001 connected with 10.0.0.1 port 57484
[ID] Interval Transfer Bandwidth
[5] 0.0-10.0 sec 3.61 GBytes 3.10 Gbits/sec
root@mininet-vm:~# iperf -c 10.0.0.2
Client connecting to 10.0.0.2, TCP port 5001
TCP window size: 85.3 KByte (default)
[4] local 10.0.0.1 port 57484 connected with 10.0.0.2 port 5001
[ID] Interval Transfer Bandwidth
[4] 0.0-10.0 sec 3.61 GBytes 3.10 Gbits/sec
moodle » EECS745 » Resources » UDP
mininet@mininet-vm: ~
File Edit View Search Terminal Tabs Help
mininet@mininet-vm: ~
Group6@group6d: ~
h1 h2
*** Adding switches:
s1
*** Adding links:
(h1, s1) (h2, s1)
*** Configuring hosts
h1 h2
*** Starting controller
*** Starting 1 switches
s1
*** Starting CLI:
mininet> xterm h1 h2
mininet> xterm h1 h2
mininet> pingall
*** Ping: testing ping reachability
h1 -> h2
h2 -> h1
*** Results: 0% dropped (2/2 received)
mininet> pingall
*** Ping: testing ping reachability
h1 -> h2
h2 -> h1
*** Results: 0% dropped (2/2 received)
mininet>
Start Mininet and xterm windows.
Run "sudo mn", and then open a window on
Run iperf in UDP mode and measure the through
On h2, run "iperf -u -s".
On h1, run "iperf -u -c 10.0.0.2".
Run iperf in TCP mode and measure the through
On h2, run "iperf -s".
On h1, run "iperf -c 10.0.0.2".
Compare the UDP and TCP results and explain
Document completion on your group's web site.


Activities
Thu 13:31
Node: h2 (on mininet-vm)
Node: h1 (on mininet-vm)
Server listening on TCP port 5001
TCP window size: 85.3 KByte (default)
[5] local 10.0.0.1 port 5001 connected with 10.0.0.2 port 38610
[ID] Interval Transfer Bandwidth
[5] 0.0-10.0 sec 1.71 GBytes 1.47 Gbits/sec
[6] local 10.0.0.1 port 5001 connected with 10.0.0.2 port 38611
[6] 0.0-10.0 sec 1.78 GBytes 1.52 Gbits/sec
[6] local 10.0.0.1 port 5001 connected with 10.0.0.2 port 38612
[5] 0.0-10.0 sec 1.74 GBytes 1.49 Gbits/sec
[6] local 10.0.0.1 port 5001 connected with 10.0.0.2 port 38613
Client connecting to 10.0.0.1, TCP port 5001
TCP window size: 16.0 KByte (WARNING: requested 8.00 KByte)
[4] local 10.0.0.2 port 38610 connected with 10.0.0.1 port 5001
[ID] Interval Transfer Bandwidth
[4] 0.0-10.0 sec 1.71 GBytes 1.47 Gbits/sec
Client connecting to 10.0.0.1, TCP port 5001
TCP window size: 14.0 KByte (WARNING: requested 7.00 KByte)
[4] local 10.0.0.2 port 38611 connected with 10.0.0.1 port 5001
[ID] Interval Transfer Bandwidth
[4] 0.0-10.0 sec 1.78 GBytes 1.52 Gbits/sec
Client connecting to 10.0.0.1, TCP port 5001
TCP window size: 12.0 KByte (WARNING: requested 6.00 KByte)
[4] local 10.0.0.2 port 38612 connected with 10.0.0.1 port 5001
[ID] Interval Transfer Bandwidth
[4] 0.0-10.0 sec 1.74 GBytes 1.49 Gbits/sec
Client connecting to 10.0.0.1, TCP port 5001
TCP window size: 10.0 KByte (WARNING: requested 5.00 KByte)
[4] local 10.0.0.2 port 38613 connected with 10.0.0.1 port 5001
• Start Mininet and xterm windows
◦ Run "sudo mn", and then open a window on each virtual host using "xterm h1" and "xterm h2".
• On your h1 and h2 virtual hosts, use iperf in TCP mode and measure the throughput you can obtain between the two hosts when running one iperf session, then run two simultaneous sessions and measure the throughput. Compare the results, and explain the observed behavior.
• Change the socket buffer (maximum window) sizes which iperf uses via the -w option, from 8k down to 1k in 1k steps on both send and receive boxes, and measure the throughput for each value. Compare the results to expected performance, and explain the observed behavior.
• Document completion on your group's web site.