CS2007-ASSIGNMENT-8

PART-A:

AFTER STARTING THE POX CONTROLER ON A SEPARATE WINDOW, USING COMMAND:

pox/pox.py - - verbose forwarding.hub

OUTPUT:

```
csa@Ubuntu1: ~
csg@Ubuntu1:-$ sudo mn --custom ~/mininet/custom/topo-lab8.py --topo mytopo --controller=remote,0.0.0.0.*** Creating network
*** Adding controller
Unable to contact the remote controller at 0.0.0.0:6653
Connecting to remote controller at 0.0.0.0:6633
*** Adding hosts:
h1 h2 h3 h4 h5
*** Adding switches:
                                                                                                                                                                root@Ubuntu1:/home/csg# iper
s1 s2 s3
*** Adding links:
(h1, s1) (h2, s1) (h3, s3) (h4, s3) (h5, s3) (s1, s2) (s2, s3)
*** Configuring hosts
                                                                                                                                                                Client connecting to 10.0.0.1
TCP window size: 340 KByte (
h1 h2 h3 h4 h5
 *** Starting controller
c0
 *** Starting 3 switches
s1 s2 s3 ...
*** Starting CLI:
mininet> sh ovs-ofctl dump-flows s1
cookie=0x0, duration=24.085s, table=0, n_packets=73, n_bytes=8704, actions=FLOOD mininet> sh ovs-ofctl dump-flows s2 cookie=0x0, duration=27.531s, table=0, n_packets=73, n_bytes=8700, actions=FLOOD mininet> sh ovs-ofctl dump-flows s3
 cookie=0x0, duration=31.704s, table=0, n_packets=78, n_bytes=9050, actions=FLOOD
mininet> h1 ping h2
PING 10.0.0.2 (10.0.0.2) 56(84) bytes of data.
64 bytes from 10.0.0.2: icmp_seq=1 ttl=64 time=0.946 ms
64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=0.051 ms
64 bytes from 10.0.0.2: icmp_seq=3 ttl=64 time=0.049 ms
--- 10.0.0.2 ping statistics --- 3 packets transmitted, 3 received, 0% packet loss, time 2031ms rtt min/avg/max/mdev = 0.049/0.348/0.946/0.422 ms
mininet> h1 ping h5
PING 10.0.0.5 (10.0.0.5) 56(84) bytes of data.
64 bytes from 10.0.0.5: icmp_seq=1 ttl=64 time=3.05 ms
64 bytes from 10.0.0.5: icmp_seq=2 ttl=64 time=0.104 ms
64 bytes from 10.0.0.5: icmp_seq=3 ttl=64 time=0.118 ms
--- 10.0.0.5 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2007ms
rtt min/avg/max/mdev = 0.104/1.092/3.054/1.387 ms
mininet> pingall
*** Ping: testing ping reachability
h1 -> h2 h3 h4 h5
h2 -> h1 h3 h4 h5
h3 -> h1 h2 h4 h5
h4 -> h1 h2 h3 h5
h5 -> h1 h2 h3 h4
*** Results: 0% dropped (20/20 received)
mininet> xterm h1 h2
mininet> xterm h1 h2 h5 mininet> \square
```

X-term Window h1

X-term Window h2

X-term Window h5

```
"Node: h5" - □ ×

root@Ubuntu1:/home/csg# iperf -c 10.0.0.1

Client connecting to 10.0.0.1, TCP port 5001

TCP window size: 442 KByte (default)

[ 5] local 10.0.0.5 port 34728 connected with 10.0.0.1 port 5001

[ ID] Interval Transfer Bandwidth

[ 5] 0.0-10.0 sec 42.1 GBytes 36.2 Gbits/sec

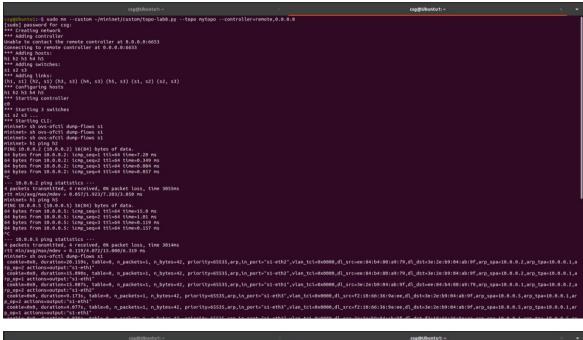
root@Ubuntu1:/home/csg# []
```

PART-B:

THIS TIME, AFTER STARTING THE POX CONTROLER ON A SEPARATE WINDOW, USING COMMAND :

pox/pox.py - - verbose forwarding.l2_learning

OUTPUT:



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X-term Window h1

X-term Window h2

X-term Window h5