

Activities
Term
Thu 16:12
Group 6

```

root@mininet-vm:~# tcpdump -w sip_experiment.pcap
tcpdump: listening on h1-eth0, link-type (Ethernet), capture size 65535 b
ytes

```

Node: h2 (on mininet-vm)

Call-rate(length)	Port	Total-time	Total-calls	Scenario	Screen
10,0(0 ms)/1,000s	5000	83.16 s	631	[1-9]: Change Screen	16.0.0.1:5060(UDP)

10 new calls during 1.000 s period
0 calls (limit 50)
0 Running, 532 Paused, 34 Woken up
0 dead call msg (discarded)
3 open sockets

1 ms scheduler resolution
Peak was 1 calls, after 0 s
0 out-of-call msg (discarded)

Messages	Retrans	Timeout	Unexpected-Flag
INVITE	0	0	0
100	0	0	0
180	0	0	0
183	0	0	0
200	0	0	0
ACK	0	0	0
Pause [0ms]	0	0	0
BYE	0	0	0
200	0	0	0

*** Starting controller
*** Starting 1 switches
sl
*** Starting CLI:
mininet> xterm h1 h2
mininet> xterm h1
mininet> |

Node: h1 (on mininet-vm)

Port	Total-time	Total-calls	Transport	Scenario	Screen
5000	83.20 s	630	UDP	[1-9]: Change Screen	

10 new calls during 1.002 s period
40 calls
0 Running, 571 Paused, 24 Woken up
0 dead call msg (discarded)
3 open sockets

1 ms scheduler resolution
Peak was 41 calls, after 18 s

Messages	Retrans	Timeout	Unexpected-Flag
INVITE	0	0	0
100	0	0	0
180	0	0	0
183	0	0	0
200	0	0	0
ACK	0	0	0
E-RTN	0	0	0
BYE	0	0	0
200	0	0	0
4000ms	0	0	0

Sipp Server Mode

- Install SIP tools on your Mininet virtual machine.
 - Use [this guide](#) to install SIP tools.
- Start Mininet and xterms.
 - Run "sudo mn" and then "xterm h1 h2" and "xterm h1".
- Experiment with the SIP tool.
 - Run "tcpdump -w sip_experiment.pcap" in one of the h1 xterm windows.
 - Run "sipp -sn uas" in the other h1 xterm window.
 - Run "sipp -sn uac 10.0.0.2" in the h2 xterm window.
 - Collect data for a minute or so and then kill the sipp session.
- Analyze the packet capture.
 - Open sip_experiment.pcap in Wireshark.
 - Identify a SIP conversation. What SIP messages (e.g., INVITE) do you see?
- Document completion on your group's web page.