Lab 4: Tunneling, Symmetric Client/Servers, and Monitoring

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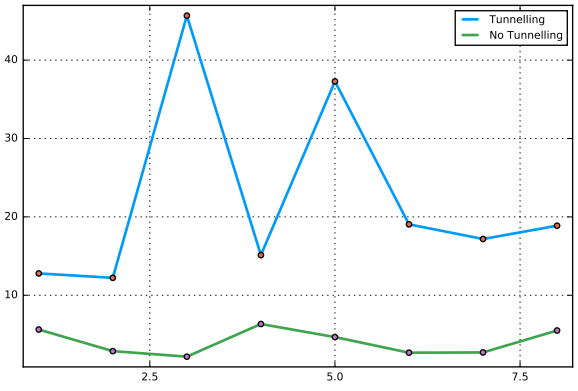
Problem 1.
Testing our code:

- Actual server runs at: `sslab01`
- `Tunneld` runs at: `borg01`
- `Mytunel` and `client` runs at: `Hicks Library`

`myping/mypingd`:
I sent 8 queries uing tunneling and not using tunneling. Below is the performance:



	tunnel	no tunnel
1	12.786 ms	5.631 ms
2	12.225 ms	2.875 ms
3	45.676 ms	2.167 ms
4	15.123 ms	6.334 ms
5	37.285 ms	4.665 ms
6	19.046 ms	2.674 ms
7	17.179 ms	2.705 ms
8	18.874 ms	5.505 ms

Discussion: using tunnel increase the ping number which is understandable because instead of directly transmit our UDP packets, we now need to transmit it through another intermediate server (i.e `tunneld`) which will increase time.

`traffic_rcv/traffic_snd`:
I sent 5 queries uing tunneling and not using tunneling. Below is the performance:

	tunnel			no tunnel		
	Time	BPS	PPS	Time	BPS	PPS
1	0.109 s	7766275.5	920	0.116 s	7270135.5	861
2	0.108 s	7750229.5	922	0.108 s	7767991.5	920
3	0.108 s	7784829	922	0.109 s	7675029.5	909
4	0.108 s	7781886	927	0.107 s	7855029.5	929
5	0.109 s	7731062	916	0.119 s	7061520.5	836

Discussion: There are not many difference between using tunneling and not using tunneling because the throughtputs from `hicks libary` to `borg` and `sslab01` are similar. There will be no bottleneck node. Also, with tunneling, the result seems to be more stable at receiver, and I think the reason is that connection between `borg` machines and `sslab01` is more stable compared to connection between `hick` machine and `sslab` machines

Problem 2.