

# Pinger Test

## Localhost (127.0.0.1)

```
$ py sample_pinger.py 127.0.0.1
Pinging 127.0.0.1 using Python:
36 bytes from 127.0.0.1; time=1.0 ms
36 bytes from 127.0.0.1; time=0.0 ms
36 bytes from 127.0.0.1; time=0.0 ms
36 bytes from 127.0.0.1; time=1.0 ms
36 bytes from 127.0.0.1; time=0.0 ms

-----127.0.0.1 ping statistics-----
round-trip min/avg/max 0.0/0.409/1.048 ms
```

## Cs.stonybrook.edu

```
$ py sample_pinger.py cs.stonybrook.edu
Pinging 23.185.0.2 using Python:
36 bytes from 23.185.0.2; time=3.5 ms
36 bytes from 23.185.0.2; time=2.8 ms
36 bytes from 23.185.0.2; time=3.7 ms
36 bytes from 23.185.0.2; time=3.7 ms
36 bytes from 23.185.0.2; time=3.7 ms

-----cs.stonybrook.edu ping statistics-----
round-trip min/avg/max 2.765/3.467/3.693 ms
```

## Root servers outside the US:

### Virginia

```
$ py sample_pinger.py 198.41.0.4
Pinging 198.41.0.4 using Python:
36 bytes from 198.41.0.4; time=5.0 ms
36 bytes from 198.41.0.4; time=5.0 ms
36 bytes from 198.41.0.4; time=5.0 ms
36 bytes from 198.41.0.4; time=5.1 ms
36 bytes from 198.41.0.4; time=5.0 ms

-----198.41.0.4 ping statistics-----
round-trip min/avg/max 4.975/5.007/5.1 ms
```

### Sweden

```
$ py sample_pinger.py 192.36.148.17
Pinging 192.36.148.17 using Python:
36 bytes from 192.36.148.17; time=22.2 ms
36 bytes from 192.36.148.17; time=22.1 ms
36 bytes from 192.36.148.17; time=21.0 ms
36 bytes from 192.36.148.17; time=21.7 ms
36 bytes from 192.36.148.17; time=21.9 ms

-----192.36.148.17 ping statistics-----
round-trip min/avg/max 21.031/21.756/22.164 ms
```

## Netherlands

```
$ py sample_pinger.py 193.0.14.129
Pinging 193.0.14.129 using Python:
36 bytes from 193.0.14.129; time=91.7 ms
36 bytes from 193.0.14.129; time=91.3 ms
36 bytes from 193.0.14.129; time=91.5 ms
36 bytes from 193.0.14.129; time=90.7 ms
36 bytes from 193.0.14.129; time=91.2 ms

-----193.0.14.129 ping statistics-----
round-trip min/avg/max 90.674/91.264/91.673 ms
```

## Japan

```
$ py sample_pinger.py 202.12.27.33
Pinging 202.12.27.33 using Python:
36 bytes from 202.12.27.33; time=76.3 ms
36 bytes from 202.12.27.33; time=75.6 ms
36 bytes from 202.12.27.33; time=75.3 ms
36 bytes from 202.12.27.33; time=75.9 ms
36 bytes from 202.12.27.33; time=76.4 ms

-----202.12.27.33 ping statistics-----
round-trip min/avg/max 75.256/75.869/76.365 ms
```

## Explanation:

The RTT time is extremely small for the local host because we are sending the ping directly to ourselves so we will have a small delay. The RTT time for cs.stonybrook.edu is a little bit higher because now we have to ping a server that is somewhere on campus or within the US. The RTT time for the root servers outside the US are much higher since they are geographically further away from our host machine so it will take a longer time for the packet to travel while the RTT time for the root server in the US(Virginia) is smaller since it is geographically closer.