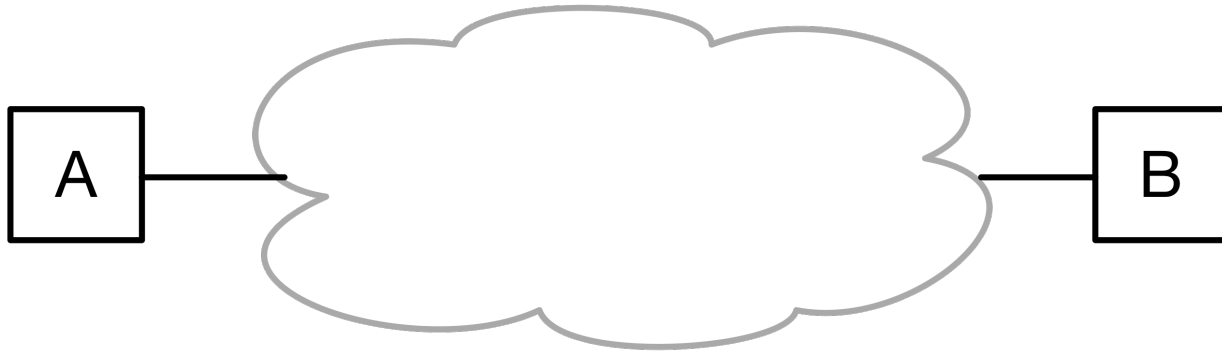


Week 3: Connectivity, losses, latency, and geolocation

1. Introduction - Ping
2. Connectivity
3. Losses
4. Latency
5. Geolocation
6. Conclusion

Ping

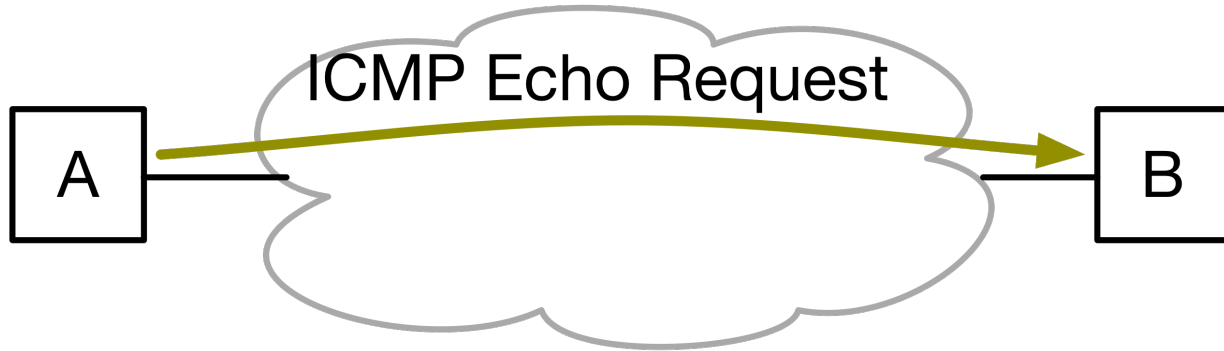


A series of packets and responses, to measure:

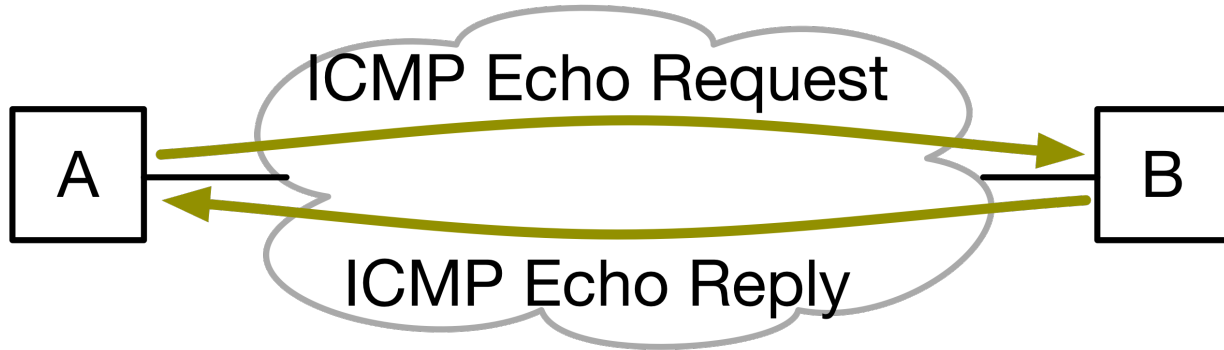
- connectivity
- loss rates
- latency

Ping

Created by Mike Muuss in 1983



Ping



RFC 1122: "Every host MUST implement an ICMP Echo server function that receives Echo Requests and sends corresponding Echo Replies."

```
$ ping www.example.com
```

```
PING www.example.com (93.184.216.34): 56 data bytes
```

```
64 bytes from 93.184.216.34: icmp_seq=0 ttl=54 time=89.080 ms
```

```
64 bytes from 93.184.216.34: icmp_seq=1 ttl=54 time=89.518 ms
```

```
64 bytes from 93.184.216.34: icmp_seq=2 ttl=54 time=91.680 ms
```

```
64 bytes from 93.184.216.34: icmp_seq=3 ttl=54 time=92.120 ms
```

```
^C
```

```
--- www.example.com ping statistics ---
```

```
4 packets transmitted, 4 packets received, 0.0% packet loss
```

```
round-trip min/avg/max/stddev = 89.080/90.600/92.120/1.319 ms
```

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