

How many of you ...

- have programmed with **sockets** ?
- have taken a **networking course** ?
- have used tools like ?
**ping, traceroute, ipconfig/ifconfig, nslookup
netstat, netcat, nmap, wireshark**
- know what is :
**IP address, port, a canonical hostname
client, server, router
switch (or hub), gateway**
- can explain with a fair amount of details :
**Ethernet, WiFi
IP, TCP
ARP, BGP, DNS**

The Internet



1980's - few hosts connected : government institutions and universities

➡ Trustworthy environment

2019 - ~ 4.2 billion internet users: network of networks

➡ Untrustworthy environment

➡ Internet (and its protocols) was
not designed for untrustworthy environment