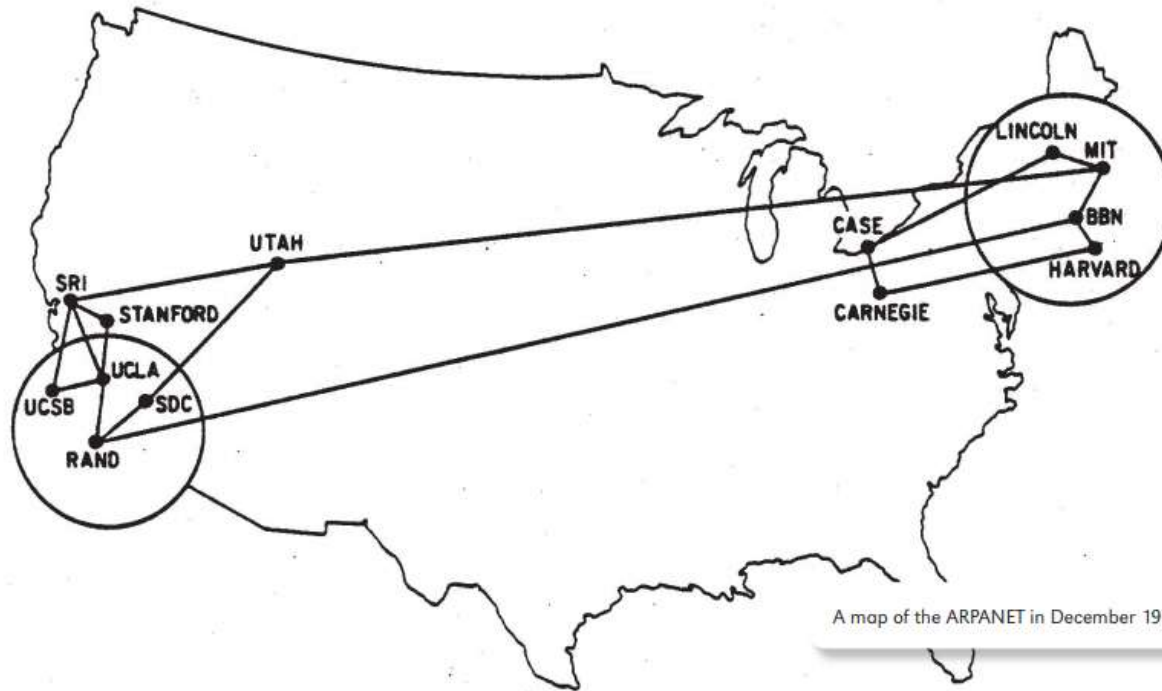


How the Internet works

- Dates back to the early 70's
- A military system intended as a resilient communication system in case of nuclear war – ARPANET
- Then known as Packet Switching
- The Internet is not Email, Websites or Netflix, It supports and carries these services.

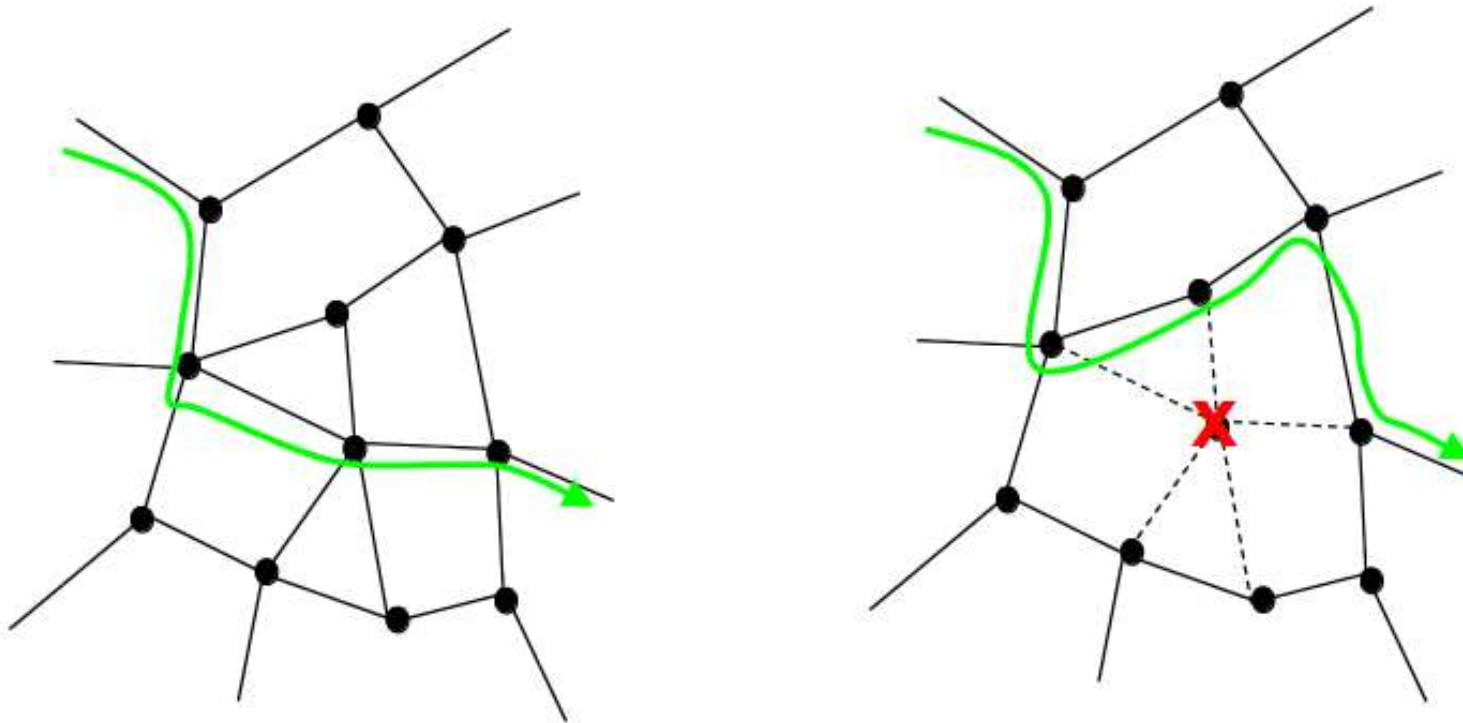
Where it all began



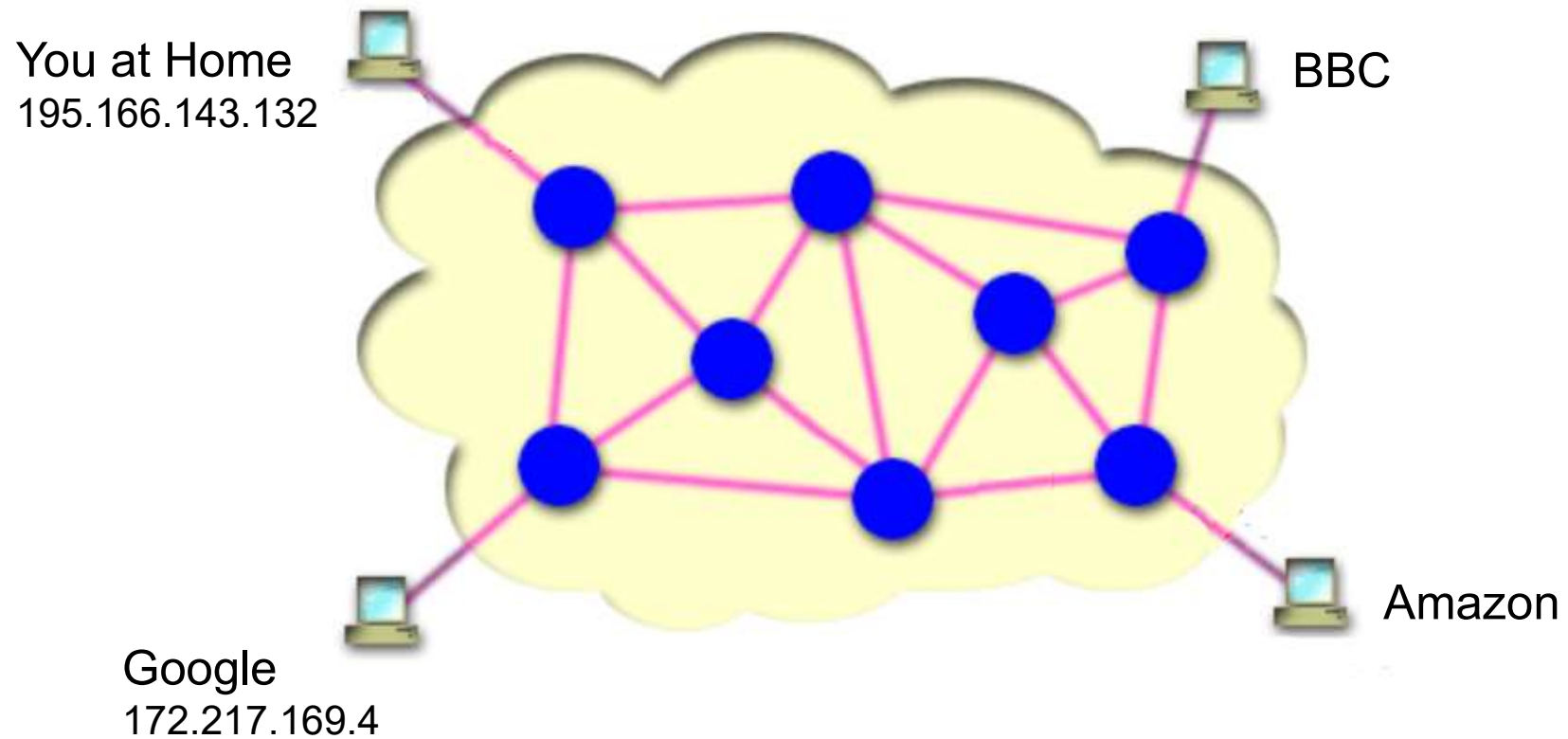
A map of the ARPANET in December 1970.

Coping with damage

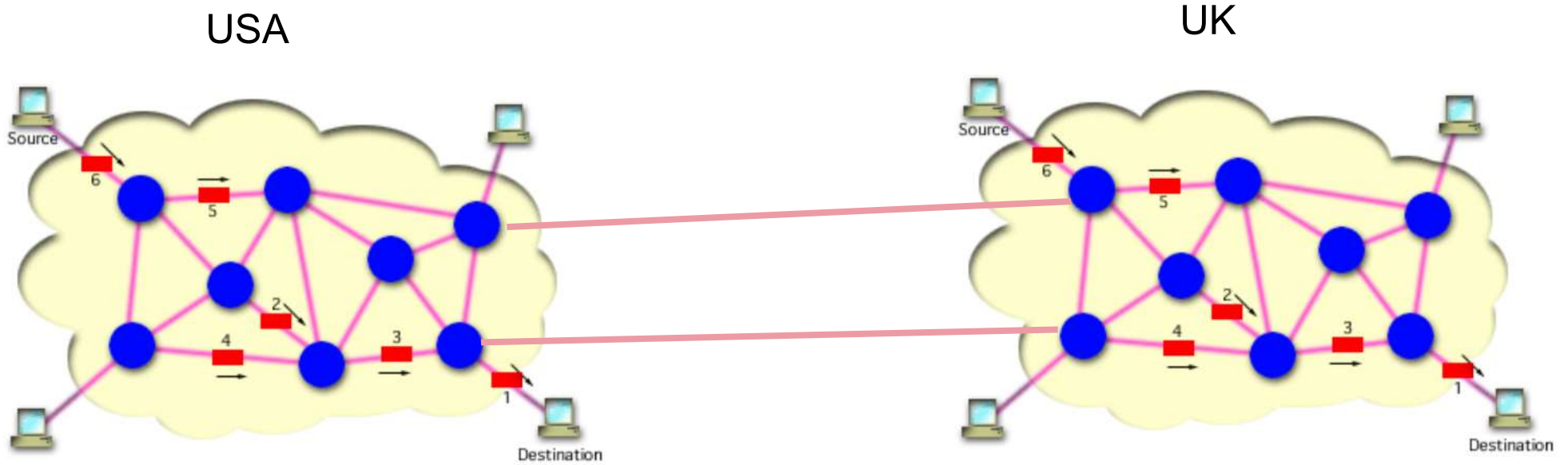
The system was designed to cope with severely damaged cities



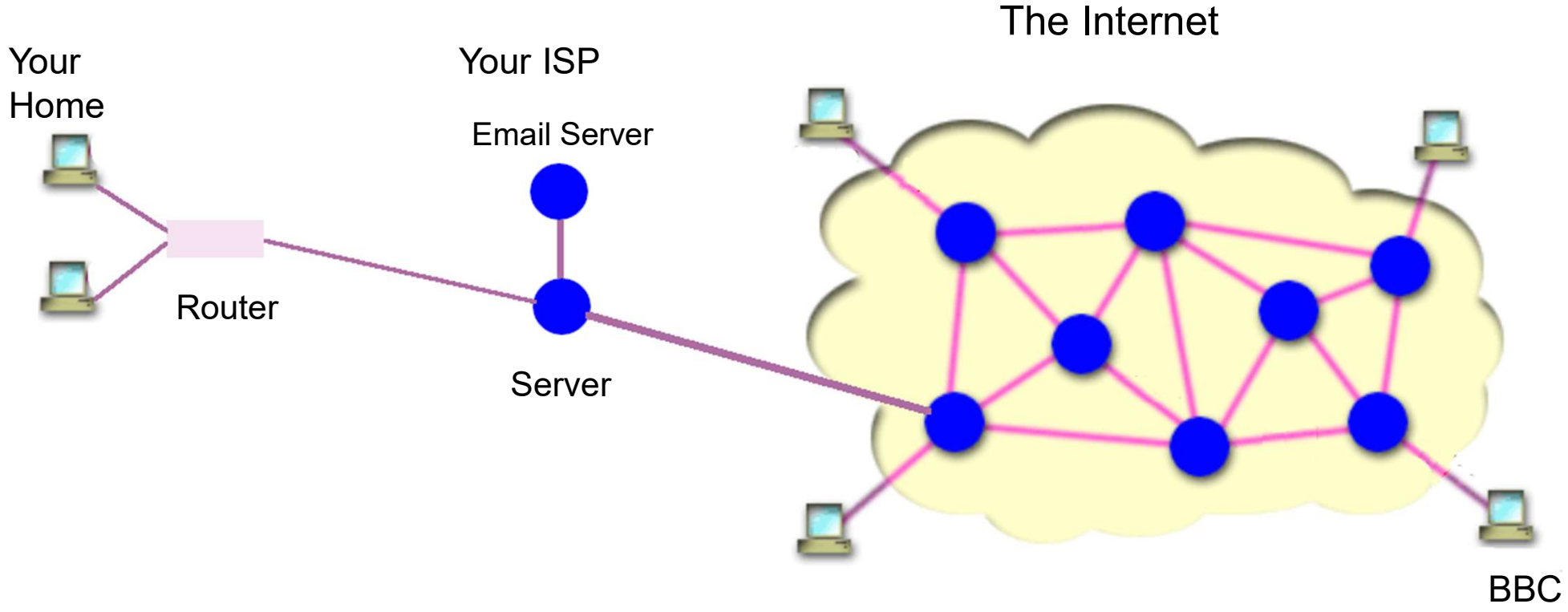
A very Basic Internet



Between Continents



How you connect



Everything we use is an Internet service

- Email – the first service to run over the Internet
- WWW - another service, invented later by that clever man Sir Tim Berners-Lee
- All rely on a source and destination IP Address:
 - Google = 74.125.242.115
 - BBC = 172.217.169.4

Packet Switching

- You write and 'send' a three page email.
- Your three page email is chopped into bits (Packets), each bit has your IP address and the destination IP Address added and is then sent out to the Internet.
- When all the bits arrive at the destination, the addresses are stripped off and all the bits are reassembled to recreate the message.