Last time: level 5 home subnetwork

Home subnet:



ISP:



The reddit:



* If we live in the world of IPv6 (each hosts get assigned a unique IPv6 address):
  + As long as PC1 (18.1.14.4) and the reddit (151.2.3.9) stores the source and dst IP addresses of the TCP Connection in their socket, the TCP connection can be done
    - PC1: 18.1.14.4: 5678 ← —> 151.3.2.4:443: reddit
  + DNS + DHCP + switch + router + modem used to be independent parts, but now they goes in to a “home router” you can buy from a shop
* Level 6: Proxy server/ jump host / bastion / socks5
  + Each subnets have a local range of IPv4 addresses



* The computer relays the bytes between TCP connection 1 and TCP connection 2.
* But this is annoying for asking every new PC to also set up the proxy
* Level 7: Transparent Proxy



* The PC does not know the existence of the proxy
* And the proxy computer acts as if it is the reddit server in the home subnet, and relay the connection out with its own public IP address

* Level 8: network address/port translation ( NAT )
  + For the proxy, it no longer reconstruct the byte stream, but only do translation on the IP address and port to appear in the public network

