***How TCP Sends Data***

The average server has a small window size because it mostly sends information unless it’s a cloud storage server. The window size is the amount of information that can be sent in each packet.

The TCP receive window size is **the amount of receive data (in bytes) that can be buffered during a connection**.

Which element in the TCP header allows TCP to send data in window sizes far beyond what was originally designed in the TCP protocol specification?

* Windows Size scaling factor

***How TCP Ends a Session***

* Pushing Data (PSH)
* Closing Gracefully (FIN)
  + Im done lets close this session
* Slamming Doors (RST)
  + Something bad is happening or there is an idle connection so it closes it.

***How UDP communicates***

No sequencing and no acknowledgements

* DNS, Realtime streaming,
  + VOIP (RTP real time transport protocol)
    - Allows there to be a sequence number attached to UDP packet but that is in the application layer.
* MDNS (multicast domain name service)
  + Broadcast to every to tell that you are here.

Because it's unreliable, the UDP header includes a type of sequence number that allows the receiving end to reassemble packets that may be out of order. True or false?

* False

The TCP 3-way handshake is a process of using SYN and ACK message to exchange sequence numbers.

***Configure Windows, MAC, or Linux for network Access***

***Introduction to configure windows, Mac, or Linux for network access.***

* ipconfig
* Nslookup
* Arp -a (address resolution protocol)
  + Arp -d \*
    - Refreshes the cache with mac to ip address tabling.

Which method of configuring a static ip address in windows gives your more options you can use?

* Control panel

***Configuring and testing MacOS Network Access***

Which command displays your IP address from the MacOS Terminal window?

* ifconfig

***Configurating and testing ubuntu Linux Network Access***

(LTS) long term support for linux version

Which Ubuntu Linux command will give you full root access in the command-line environment?

* Sudo bash
  + Command line environment to root level access