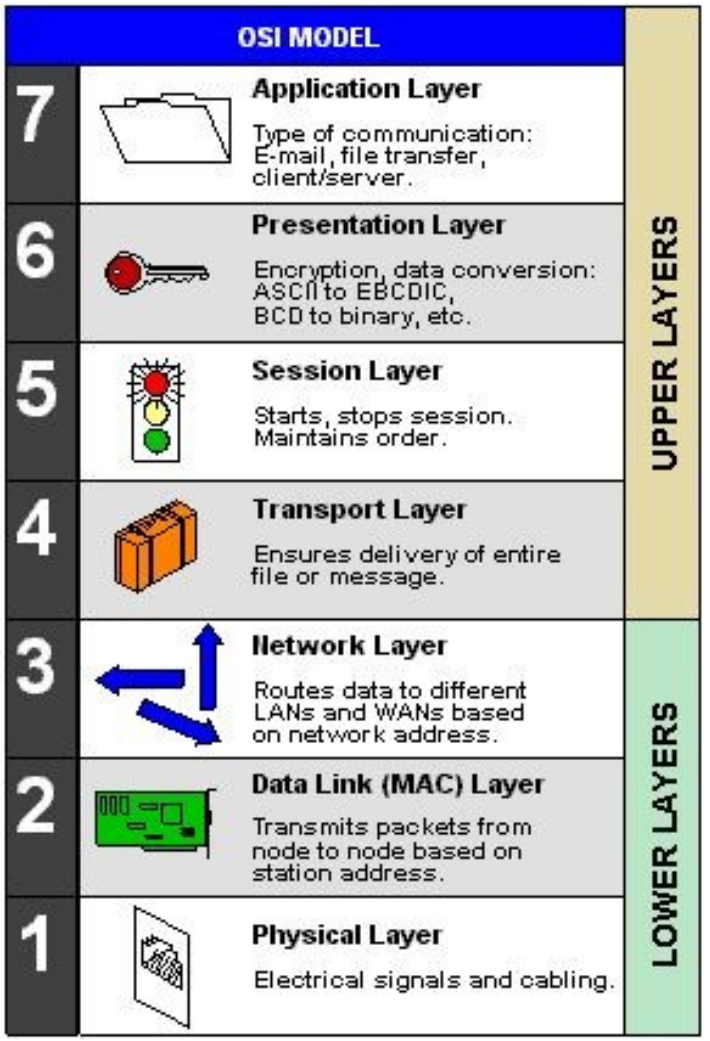
AĞ GÜVENLİĞİ VE SIZMA TESTİ

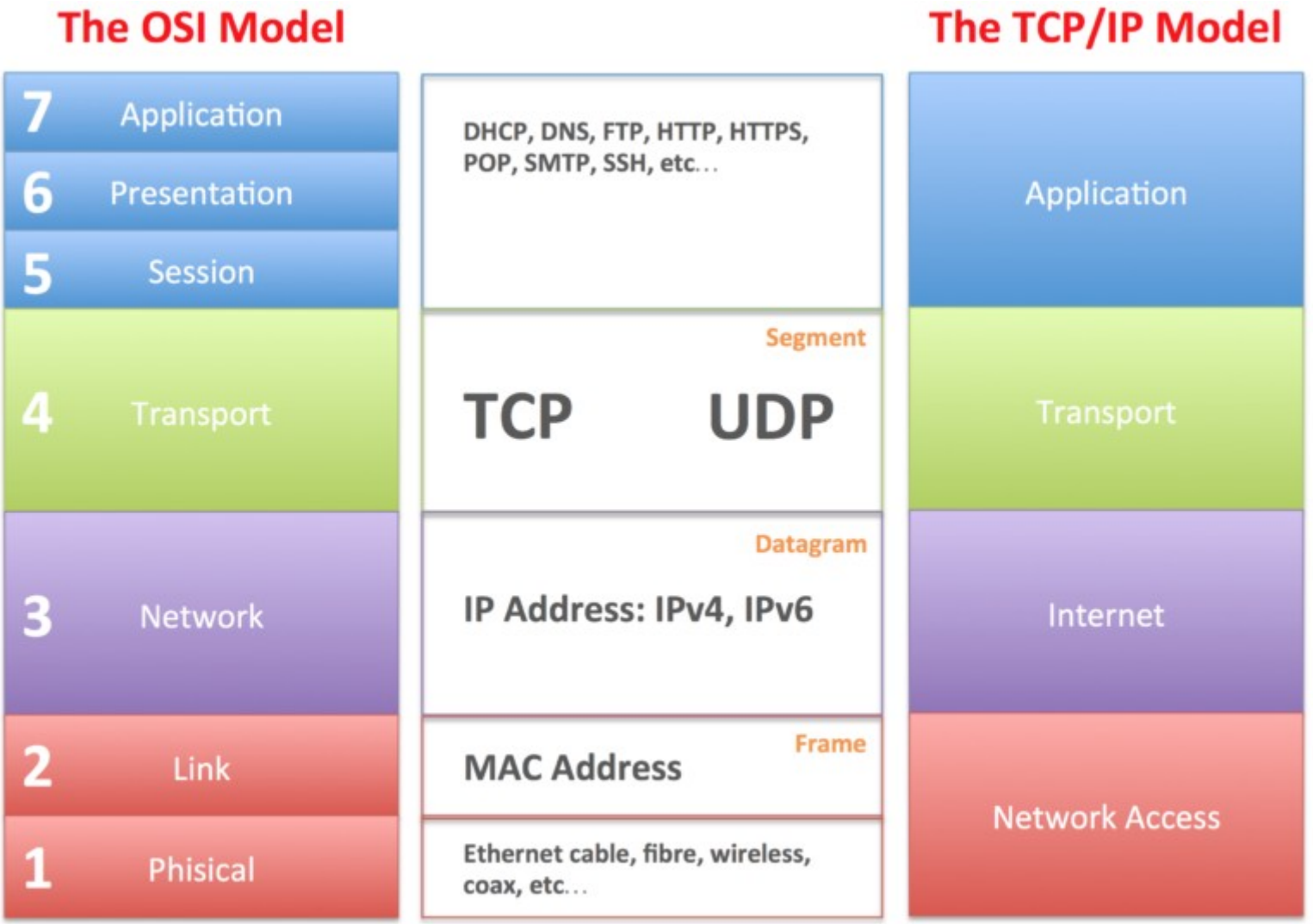
~ cat network_basics/introduction

Ağ nedir ?

~ eog network_basics/osi_model.png



~ eog network_basics/tcp-ip_model.png



~ cat network_basics/Layer7-6-5.txt

*Data
*L7 App. Layer
→ Son kullanıcıya arayüz sağlar
→ FTP,SMTP,HTTP
*L6 Presantation
→ Data Format(gzip,docx,jpg)
→ encryption
→ Compression
*L5 Session
→ Dialogue Control
→ Synch

~ cat network_basics/Layer4.txt

*Segment/Datagram

*UDP

*TCP

*Port
- → 0-65535
- → 0-1023 --- Well Known(Contact) Ports
- → 1024-49151 --- Registered Ports
- → 49151-65535 --- Private and/or Dynamic ports

~ cat network_basics/Layer4-UDP.txt

|UDP HEADER| DATA|
8 byte
Datagram
|Source Port|Dest. Port|4
| Lenght | Check Sum |4
| Data |

1)Connectionless
2)Unreliable
3)No Flow Control
4)Stateless Protocol

~ cat network_basics/Laye4-TCP.txt

|TCP HEADER| DATA|
8 byte
Datagram
|Source Port | Dest. Port |4
| Sequence Number |4
|Acknowledgement Number|4
| Flags | Window size |4
| Checksum |4
| Data |

1)Connection Oriented(3-way handshake)
2)Reliable
3)Flow Control(Akış hızının dinamik olarak ayarlanması)
4)Stateful Protocol

~ cat network_basics/Layer3.txt

*Packet
*IPv4
*IPV6
*IPX
*...

~ cat network_basics/Layer3-IPV4.txt

|Version|HeaderLenght|QOS|TDL|4
|_____Fragmention_____|4
|TTL|Protocol|Header CheckSum|4
|_____Dest. IP_____|4
|_____Sourc IP_____|4

*Classfull Adressing
*Classless Adressing
    *Subnet
    *Ağ adresi
    *Broadcast adresi
    *Private adresler

~ cat network_basics/Layer3-IPV4vsIPV6.txt

*IPV4
- → 32 Bit
  - **4.3 Milyar IPV4 adresi
- → Daha akılda kalıcı
  - **192.168.0.1
- → Daha eski

*IPV6
- → 128 bit
  - **340 desilyon
- → Hatırlaması daha zor
  - **2022:00AA:0000:0000:AD10:0000:0012:1011
- → Daha modern bir protocol

~ cat network_basics/Layer2.txt

*Frame

*Ethernet
- → MAC address
- → ARP
- → RARP

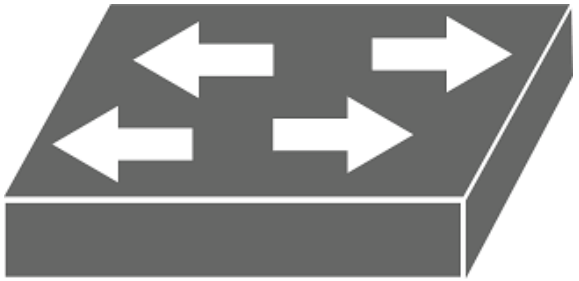
Destination MAC	6
Source MAC	6
Type	2
Data	
FCS	4

~ cat network_basics/Layer1.txt

*Signal
    → Bit

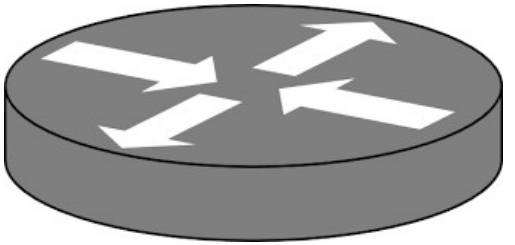
*Bakır kablo
    → CAT 5
    → CAT 6
    → ...
*Fiberoptik kablo

~ eog network_basics/Network_devices.jpg



Switch

*Layer 2
*Aynı ağdaki elemanları bağlar.



Router

*Layer 3
*Farklı ağları bağlar.