

7 Layers in OSI model:

1. Physical:

- Physical characteristics of interfaces and medium
- Representations of bits
- Data Rate
- Synchronization of bits
- Line configuration
- Physical topology
- Transmission mode

2. Data Link:

- Framing
- Physical addressing
- Flow control
- Error control
- Access control

3. Network:

- Logical Addressing
- Routing

4. Transport:

- Service-point addressing
- Segmentation and reassembly
- Connection control
- Flow control
- Error control

5. Session:

- Dialog control
- Synchronization

6. Presentation:

- Translation
- Encryption
- Compression

7. Application:

- Network virtual terminal
- File transfer, access and management
- Mail services
- Directory services

4 layers in TCP/IP model (relation to OSI Model):

1. Network interface:

- Physical
- Data link

2. Internet

- **IP** (Internetworking Protocol)
- **ARP** (Address Resolution Protocol)
- **RARP** (Reverse Address Resolution Protocol)
- **ICMP** (Internet Control Message Protocol)
- **IGMP** (Internet Group Message Protocol)

3. Transport:

- **UDP** (User Datagram Protocol)
- **TCP** (Transmission Control Protocol)
- **SCMP** (Stream Control Transmission Protocol)

4. Application:

- Session
- Presentation
- Application