

OSI Model Layers (Beginner Friendly)

1. Data Link Layer:

- Sends Frames
- Adds MAC addresses
- Handles error checking
- Works within the same network (LAN)

2. Network Layer:

- Sends Packets
- Adds IP addresses
- Performs routing
- Moves data between networks

3. Transport Layer:

- TCP sends Segments
- UDP sends Datagrams
- Uses port numbers
- Ensures reliability (TCP)

4. Session Layer:

- Starts, manages, and ends sessions
- Keeps communication active
- Creates checkpoints

5. Presentation Layer:

- Translates data formats
- Compresses data
- Encrypts/Decrypts data

6. Application Layer:

- User-facing services
- Uses protocols like HTTP, DNS, SMTP
- Interfaces apps with network