

# Network Communication Protocols Map

## NETWORK COMMUNICATION PROTOCOLS MAP

### OSI MODEL

#### Layer 7: Application Layer

- Defines interface to user processes for communication and data transfer in network

- Provides standardized services such as virtual terminal, file and job transfer and operation

#### Layer 6: Presentation Layer

- Masks the differences of data formats between dissimilar systems
- Specifies architecture-independent data transfer format
- Encodes and decodes data; Encrypts and decrypts data; Compresses and decompresses data

#### Layer 5: Session Layer

- Manages user sessions and dialogues
- Controls establishment and termination of logical links between users
- Reports upper layer errors

#### Layer 4: Transport Layer

- Manages end-to-end message delivery in network
- Provides reliable and sequential packet delivery through error recovery and flow control mechanisms
- Provides connectionless oriented packet delivery

#### Layer 3: Network Layer

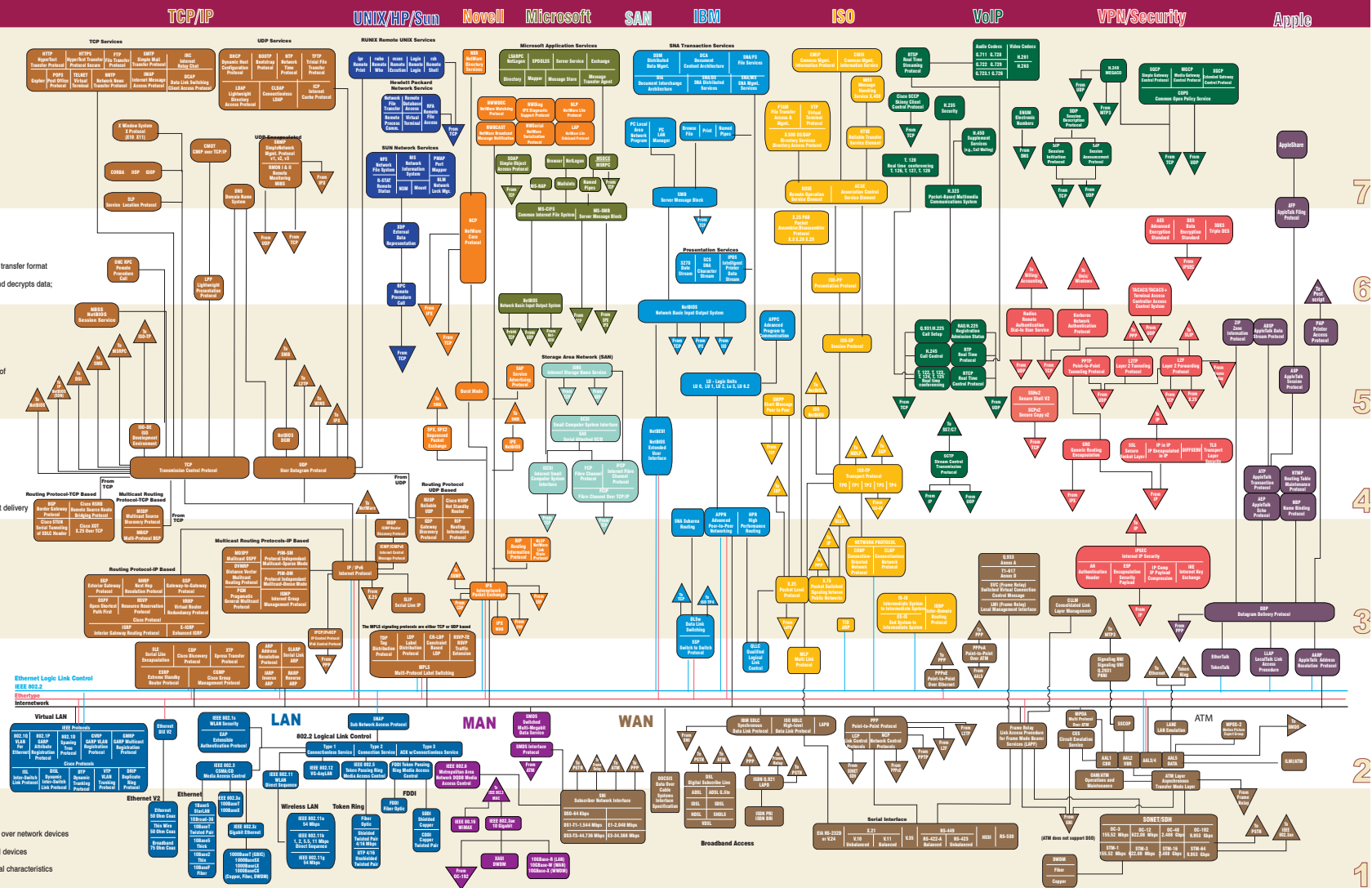
- Determines how data are transferred among network devices
- Routes packets according to unique network addresses
- Provides flow and congestion control to prevent network resource depletion

#### Layer 2: Data Link Layer

- Defines procedures for operating the communication link
- Provides framing and sequencing
- Detects and corrects received frame errors

#### Layer 1: Physical Layer

- Defines physical means of sending data over network devices
- Interfaces between network medium and devices
- Defines optical, electrical and mechanical characteristics



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