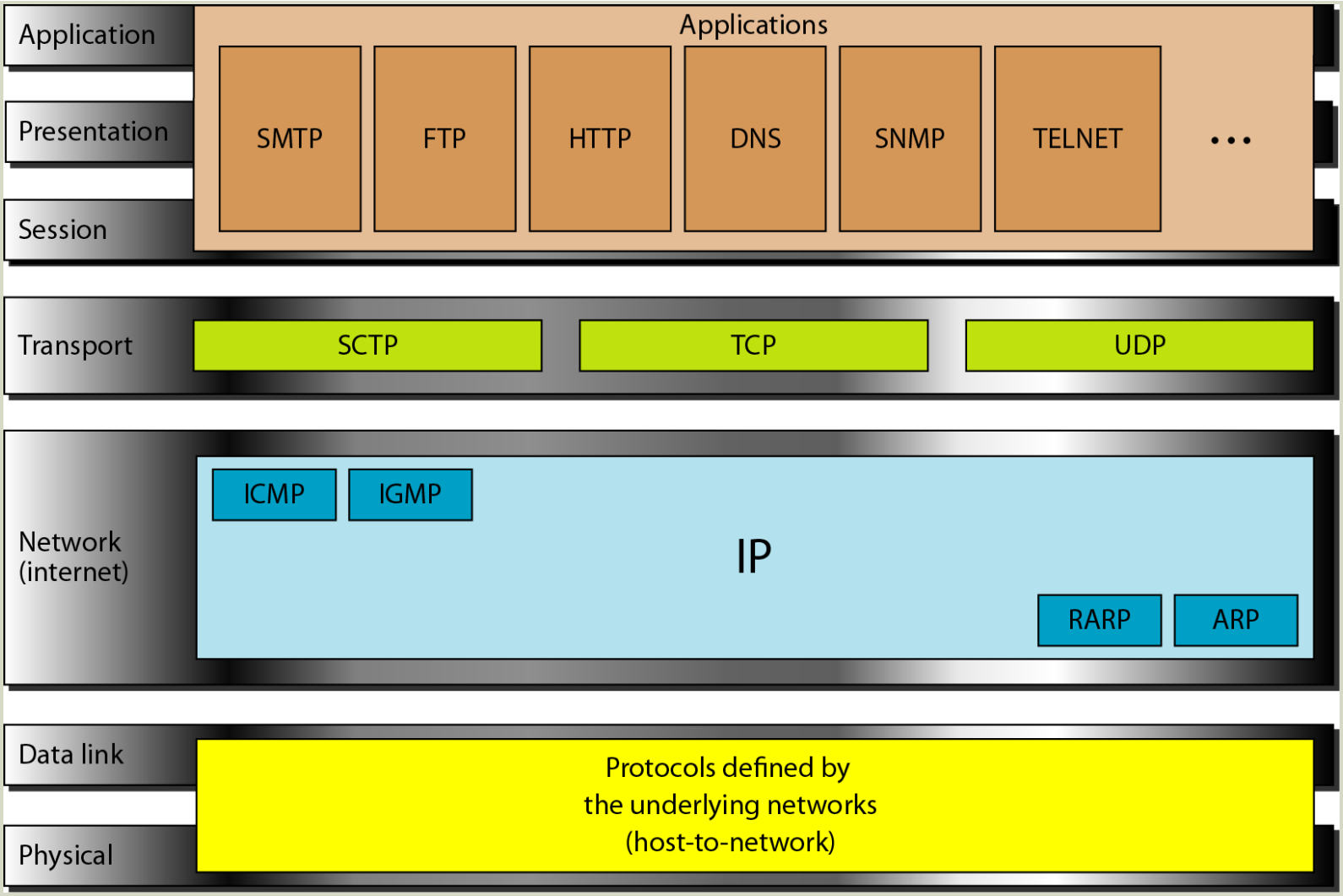
# TCP/IP MODEL

*The layers in the TCP/IP Model do not exactly match those in the OSI model. The original TCP/IP protocol suite was defined as having four layers: host-to-network, internet, transport, & application. However, when TCP/IP is compared to OSI, we can say that the TCP/IP protocol suite is made of five layers: physical, data link, network, transport, & application.*

***Topics discussed in this section:***

Physical and Data Link Layers
Network Layer
Transport Layer
Application Layer

# TCP/IP AND OSI MODEL



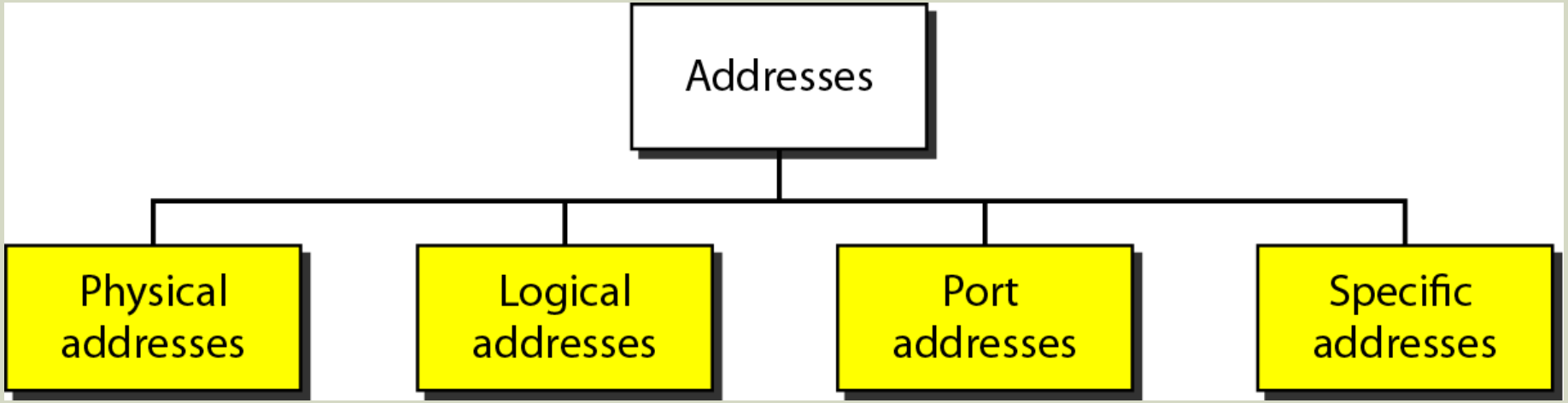
# ADDRESSING

*Four levels of addresses are used in an internet employing the TCP/IP protocols: physical, logical, port, and specific.*

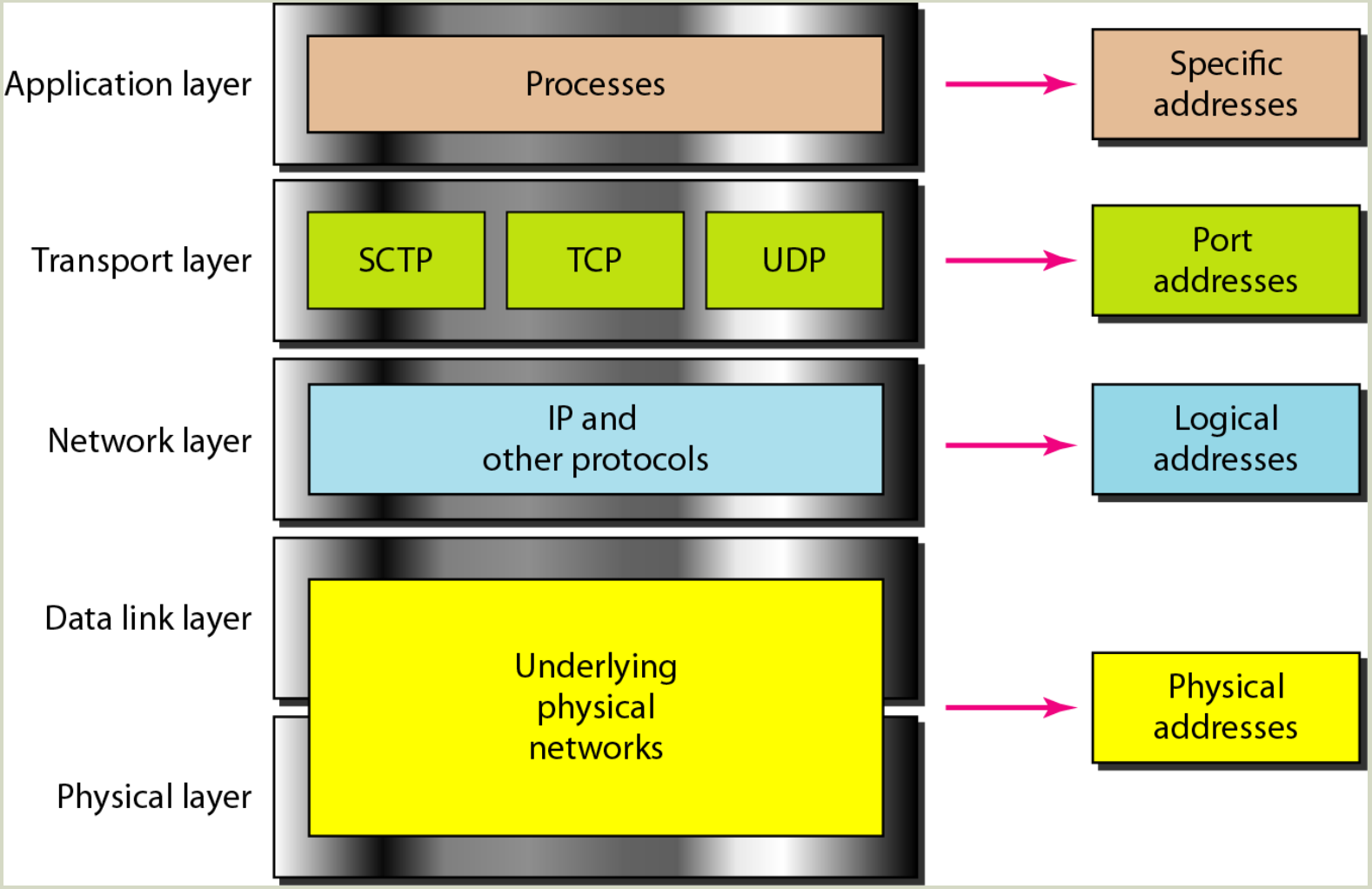
*Topics discussed in this section:*

Physical Addresses
Logical Addresses
Port Addresses
Specific Addresses

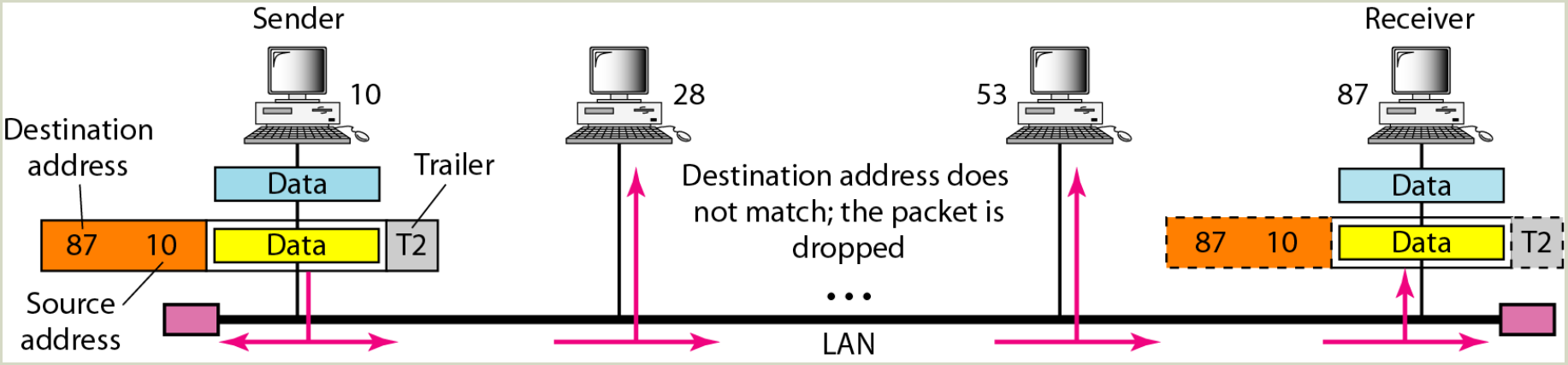
# ADDRESSES IN TCP/IP



# RELATIONSHIP OF LAYERS AND ADDRESSES IN TCP/IP



# PHYSICAL ADDRESSES



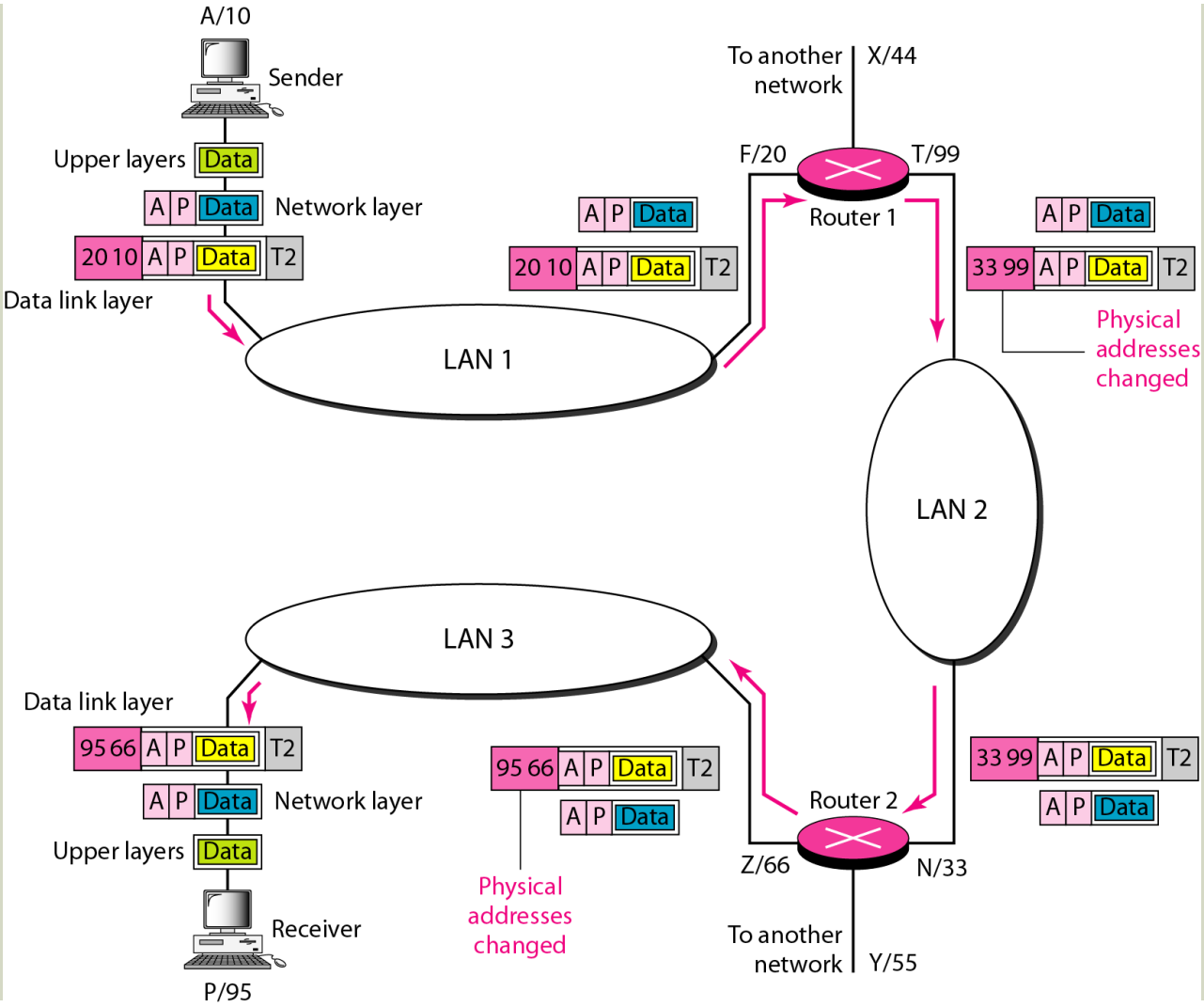
# PHYSICAL ADDRESSES

*Most local-area networks use a 48-bit (6-byte) physical address written as 12 hexadecimal digits; every byte (2 hexadecimal digits) is separated by a colon, as shown below:*

07:01:02:01:2C:4B

**A 6-byte (12 hexadecimal digits) physical address.**

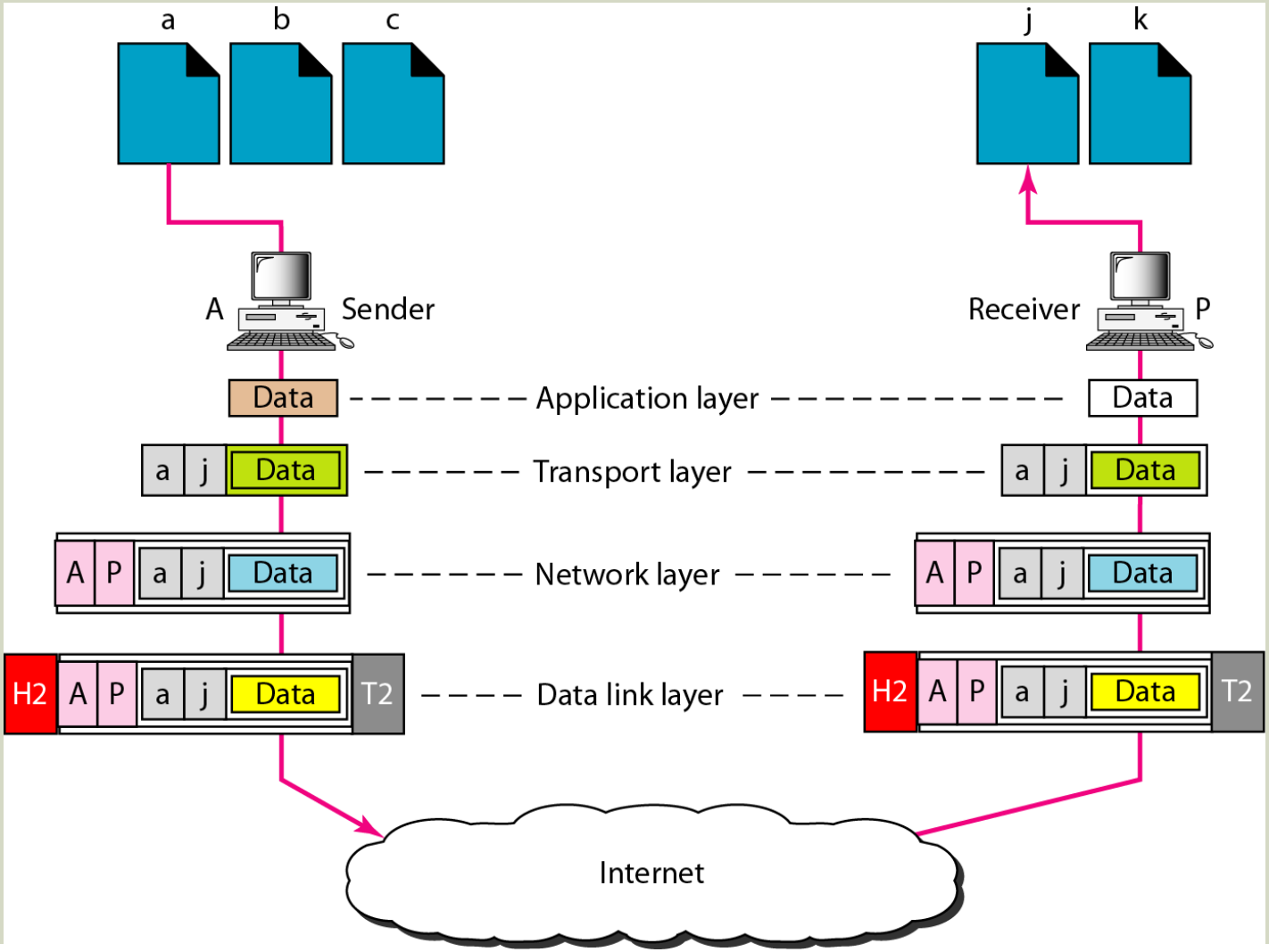
# IP ADDRESSES (LOGICAL)



# NOTE

The physical addresses will change from hop to hop, but the logical addresses usually remain the same.

# PORT ADDRESSES



# NOTE

*A port address is a 16-bit address represented by one decimal number as shown.*

753 or 80

A 16-bit port address represented as one single number.