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1. In which OSL layer the Wi-Fi standard/protocol fits.

Wi-Fi (IEEE 802.11) operates in two layers of the OSI model:

1. Physical Layer (Layer 1):

   o Defines wireless transmission technologies such as DSSS, OFDM, and MIMO.

   o Determines data rates, modulation schemes, and channel bandwidth.

   o Example: 802.11a, 802.11b, 802.11n, 802.11ax specify different PHY standards.

2. Data Link Layer (Layer 2):

   o Manages MAC (Media Access Control) for addressing, authentication, and encryption.

   o Implements collision avoidance (CSMA/CA) and retransmission strategies.

   o Example: 802.11 MAC sublayer defines BSS, ESS, handoff, and security (WPA, WPA2, WPA3).

Thus, Wi-Fi functions primarily at Layer 1 and Layer 2 of the OSI model.