MAC Protocol In Wireless Communication

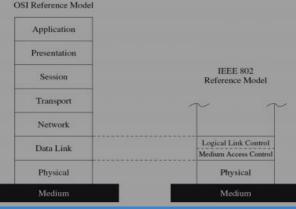
Elementrix Classes

Medium Access Control

- In most networks, multiple nodes share a communication medium for transmitting their data packets
- The medium access control (MAC) protocol is primarily responsible for regulating access to the shared medium
- The choice of MAC protocol has a direct bearing on the reliability and efficiency of network transmissions
 - due to errors and interferences in wireless communications and to other challenges
- Energy efficiency also affects the design of the MAC protocol
 - trade energy efficiency for increased latency or a reduction in throughput or fairness

Overview

- Responsibilities of MAC layer include:
 - decide when a node accesses a shared medium
 - resolve any potential conflicts between competing nodes
 - correct communication errors occurring at the physical layer
 - perform other activities such as framing, addressing, and flow control
- Second layer of the OSI reference model (data link layer) or the IEEE 802 reference model (which divides data link layer into logical link control and medium access control layer)
 OSI Reference Model





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