

Computer

Networks

Assignment - 2

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Scenario: An airport terminal provides wireless internet to passengers, but interference from many devices causes access issues

Questions:- How can CSMA/CA and RTS/CTS mechanisms resolve contention?

CSMA/CA with RTS/CTS mechanism resolves contention in wireless networks by using a two-step process: first, a node intending to transmit sends a Request to Send (RTS) frame to the receiver, and then the receiver responds with a Clear to Send (CTS) frame. This reservation process prevents other nodes from transmitting simultaneously, thus reducing the chances of collisions.

2. why is collision avoidance more suitable than collision detection here?

Collision avoidance is generally more suitable than collision reduction because it aims to prevent accidents altogether. while collision reduction focuses on minimizing the severity of impacts after a collision has already become unavoidable. Avoiding accidents is inherently safer than mitigating the consequences of one.

why Avoidance is preferred

- Proactive Approach
- Comprehensive Protection
- Reduced Severity
- Long-Term Safety