Computer Communication Networks

Spring2014

Homework # 2

Problems

1. A group of N stations share a 56-kbps slotted ALOHA channel. Each station outputs a 1000-bit frame on average once every 100sec, even if the previous one has not yet been sent(e.g. , the stations can buffer out going frames).What is the maximum value of N?

2. How does Stop-and-Wait protocol work?

3. How does Go-back-N protocol work?

4. Eight stations, numbered 1 through 8, are contending for the use of a shared channel by using the adaptive tree walk protocol. If all the stations whose addresses are even numbers suddenly become ready at once, how many bit slots are needed to resolve the contention?

5. Give two reasons why using switches is better than using Hubs?

6. What problems would occur when CSMA is used in wireless LAN?What approach would solve the above problems