

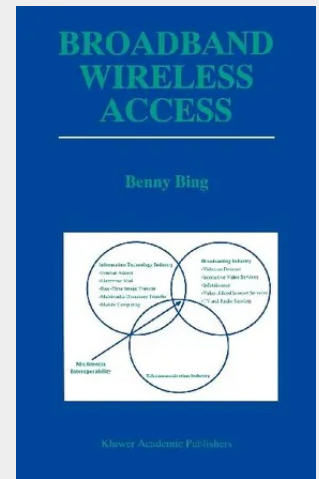
## Broadband Wireless Access

This chapter has discussed how a common broadcast medium can be shared among many contending users. Multiple access protocols differ primarily by the amount of coordination needed to control potentially conflicting packet transmissions. At one extreme is random access where no coordination is provided and packet collisions are possible. At the other end of the spectrum, the class of fixed assignment access protocols eliminates collisions entirely but pay the price of additional overhead required for scheduling user access. Hybrid access protocols between these two extremes exist. While these protocols attempt to combine the advantages of random and fixed access, they also suffer the combined drawbacks and overhead of both classes of access schemes. Amongst the many factors that determine the performance of an access protocol include the propagation delay/packet transmission time ratio, the message arrival process, the types of feedback information available, the user population, and the ability of the user to sense the activities in the network.

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