

Multihop Wireless Ad Hoc Networking: Current Challenges and Future Opportunities

David B. Johnson

Department of Computer Science, Rice University
6100 Main Houston, Texas 77005, USA
dbj@cs.rice.edu

Abstract. An ad hoc network is a collection of wireless mobile nodes that form a network without existing infrastructure or centralized administration. Nodes in the network cooperate to forward packets for each other, to allow mobile nodes not within direct wireless transmission range of each other to communicate. Ad hoc networks were initially studied for military applications more than 20 years ago, and they are currently a very active area of research within academia, government, and industry. However, few real applications of ad hoc networking have yet been deployed in common usage, and the commercial potentials of this technology have yet to be realized. In this talk, I will describe some of the current research challenges in ad hoc networking, and I will present what I believe are some the future real-world applications for this promising technology.