Mobility in Ad Hoc Wireless Networks: Friend or Foe?

Jie Wu
Florida Atlantic University

May 2, 2008

Abstract

Ad hoc wireless networks are multi-hop networks in which mobile nodes cooperate to maintain network connectivity. These networks perform various functions including routing. In this presentation, two opposing views of mobility in ad hoc wireless networks are presented. One view casts mobility as an undesirable feature. This view normally represents an ad hoc wireless network as a connected graph where path information needs to be properly maintained to ensure message delivery. Another view considers mobility as a desirable feature which can increase network capacity and even assist the routing process. We offer our views on these two approaches and discuss some recent discoveries regarding mobility-mitigation mechanisms, including buffer zones and view consistency. Finally, we present several future applications of wireless networks.

Bio

Dr. Jie Wu is Distinguished Professor at the Department of Computer Science and Engineering at Florida Atlantic University. He received his Ph.D. in Computer Science from Florida Atlantic University in 1989. Since January, 2007 he has been serving as NSF Program Director for the Division of Computer and Network Systems. He is an Editor-in-Chief of the International Journal of Computers and Applications and serves on the editorial boards of many others. His interests cover the broad areas of networking, distributed and parallel computer systems, and security.

Location: 4th Floor Conference Room (Wachman 447)
Time: 11am-Noon, Friday, May 2, 2008
Refreshments will be served!