

EFFICIENT BROADCASTING IN WIRELESS NETWORKS USING APPROXIMATION ALGORITHM

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Abstract- A wireless ad hoc network is a decentralized type of wireless network. Ad hoc networks can use flooding for forwarding the data. In most wireless ad hoc networks, the nodes compete for access to shared wireless medium, often resulting in collisions. Broadcasting is a fundamental operation in wireless networks and plays an important role in the communication protocol design. We then consider the all-to-all broadcast problem where each node sends its own message to all other nodes. For the all-to-all broadcast problem, we present two algorithms with approximation ratios of 20 and 34 of CDA and ICDA algorithms, improving the best result available in the literature. Our studies indicates that our algorithms performs much efficient than the existing system by reducing the latency time and detecting the missing packets. Finally we achieve up to 37 percent performance improvement over existing schemes.

Index Terms- Ad hoc networks, broadcast, approximation algorithms