Multicast Routing Support for Video Conference System in Mobile Ad-hoc Network


**Description:** This work is supported by National Natural Science Foundation of China. After a survey of multicast routing protocols in MANET, I proposed the On-Demand Multicast Routing Protocol with Multipoint Relay (ODMRP-MPR) which bases on ODMRP. ODMRP-MPR inducts multipoint relay technique to reduce the control overhead, obtain high scalability and effectively solve the unidirectional link problem of wireless communication. At the same time, ODMRP-MPR reserves the key merits of ODMRP such as high throughput and energy efficiency in conditions with frequently changing topology. I evaluate ODMRP-MPR performance with ODMRP for ad hoc networks via extensive and detailed simulation. Then I implemented ODMRP-MPR in Windows 2k system, which provides transparent multicast routing support to upper applications such as audio and video conference systems. With the cooperation of our wireless group, we constructed a mobile ad hoc network testbed for video conference system, and then designed some demos to present our achievement.