Wireless devices have scarcity of resources such as storage capacity and processing power. For WANETs, cooperative caching strategies are proposed in this paper to improve efficiency in information exchange in peer-to-peer fashion. The caching strategies such as small sized caches and large sized caches depend on the estimation of density of information being flown in the network. In the former strategy content replacement takes place when new information is received while in the latter a decision is made as to whether the information is to be cached and for how long. In either case every node is capable of deciding as per the content in the caches of near by nodes. This is to ensure that each node has different content that is content diversity and share the content of other nodes thus managing memory efficiently. The simulations made using NS2 show that our caching strategies are capable of making expected content diversity and improve performance of information sharing in wireless ad hoc network.

References

- K. Chen, S. H. Shah, and K. Nahrstedt, "Cross-layer design for data

Index Terms
- Computer Science
- Wireless

Keywords
- Cooperative caching
- Content diversity
- Wireless ad hoc networks