Abstract

Wireless Sensor Network (WSN) is an application based network. Wireless Sensor Network has a wide range of potential, practical and useful applications. Majority of such applications require an optimization to the communication among the sensors, so as to serve data in short latency and with minimal energy consumption. The sensor nodes in WSN are battery powered devices that consumes energy during data transmission and processing. Sink node send query messages in network, nodes may or may not reply back to the sinks query messages, but battery dissipates due to processing. Data transmission in WSN consumes more energy than processing therefore it is appropriate to exploit the benefits of caching. Cooperative caching is used for the reduction in the state of non utility of data and decreases the requirement of wireless bandwidth and energy. Cooperative caching which secure sharing of data among various nodes reduces the number of communications over the wireless channels and thus enhances the overall lifetime of a wireless sensor network. To overcome problem of cooperative cache a new technique is proposed which gives better results than existing one. Network simulator NS-2 is used for the simulations.

References
Maintaining Consistency between Caches to Improve Overall Performance in Wireless Sensor Networks

- E. Ilker Oyman and Cem Ersoy, "Multiple Sink Network Design Problem in Large Scale Wireless Sensor;"

Index Terms

Computer Science

Wireless
Keywords

WSN  Cooperative Caching  Cluster Head  CCL  CCF