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A Literature Review on Collaborative Caching Techniques in MANETs: Issues and Methods used in Serving Queries

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Abstract

Collaborative cache management in Mobile Ad Hoc Networks (MANETs) environment is considered as an efficient technique to increase data accessibility and availability, by sharing and coordination among mobile nodes. Due to nodes' mobility, limited battery power and insufficient bandwidth, researchers addressed these challenges by developing many different collaborative caching schemes. The objective of this paper is to review various collaborative caching techniques in MANETs. Collaborative caching techniques are classified by methods used in serving queries, such as: hop-by-hop discovering, broadcasting messages, flooding, and query service differentiation. This review reveals that techniques utilizing hop-by-hop methods have better performance compared to others, especially techniques using additional strategies.

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