

# A MANET Data Replication Mechanism to Improve Data Accessibility and Availability in Distributed Databases

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*Abstract*— Mobile Ad-hoc Network (MANET) is a Network, which permit Mobile Servers and Clients to communicate in lack of a permanent Infrastructure. MANET is a rapid and rising region of study as it discover utilize a diversity of applications, in turn to make possible well-organized information access and bring up to date, databases are arranged on MANETs. Such databases, which function on MANETs, are passed on to MANET Databases. The mobile database system in a MANET is a dynamic distributed database system, which is composed of some mobile host. The key issues in MANETs for mobile database are how to optimize mobile queries, cache and replicate data, manage transactions and routing. In this proposal, we wish to take the problems of data replication in solving the mobile database issues. Replication of data in a MANET environment focuses on to improve reliability and availability of data to the mobile clients (node). There are many issues revolving around replication of data in such a scenario like power, storage, server and node mobility, networking partition and frequent disconnection. So that it is planned to propose an approach for replication of data by selecting a node to replicate data which is more stable, having high residual energy levels and high storage availability and to overcome the issues related to node mobility or disconnection problem in MANET environment.

*Index Terms*—MANET, Distributed Database System, replication, node mobility, frequent disconnection, residual energy.