

## **An Efficient Resource Management Algorithm for Mobility Management in Wireless Mesh Networks**

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**Abstract :** The main objective of the proposed work is to reduce the overall network traffic incurred by mobility management, packet delivery cost and to increase the resource utilization. The proposed algorithm, An Efficient Resource Management Algorithm (ERMA) for mobility management in wireless mesh networks, relies on pointer based mobility management scheme. Whenever a mesh client moves from one mesh router to another, the pointer is set up dynamically between the previous mesh router and current mesh router based on the distance constraints. The algorithm evaluated for signaling cost, data delivery cost and total communication cost performance metrics. The proposed algorithm is demonstrated for both internet sessions and intranet sessions. The proposed algorithm yields significantly better performance in terms of signaling cost, data delivery cost, and total communication cost.

**Keywords :** data delivery cost, mobility management, pointer forwarding, resource management, wireless mesh networks

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