Manuscript ID : 00000-66264

Source ID : 00000087

International Journal of Research in Computer Applications & Information Technology

Volume 3, Issue 1, January-February 2015, Pages 12-20, Page Count - 9

Performance Improvement in Adaptive Routing Strategy in Mobile Adhoc Network

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Abstract

It has been a big challenge to develop a routing protocol that can meet different application needs and optimize routing paths according to the topology change in mobile adhoc networks. Based on their forwarding decisions only on the local topology, geographic routing protocols have drawn a lot of attention in recent years. In routing, nodes need to maintain up-to-date status of their immediate neighbors for making effective forwarding decisions. The periodic broadcasting of beacon packets that contain the geographical location coordinates of the nodes is a popular method used by most routing protocols to maintain neighbor status. Each node can determine and adjust the protocol parameter values independently according to different network environments, data traffic conditions and node's own requirements. The project offers the Adaptive Status Update strategy for routing, which dynamically adjusts the frequency of status updates based on the mobility dynamics of the guests and the forwarding patterns in the network based on nodes whose movements are harder to predict update their status more frequently, and nodes closer to forwarding paths update their Status more frequently.

Author Keywords

Ad hoc on Demand Distance Vector (AODV), Distance Source Routing (DSR), Mobile Ad Hoc Network (MANET)

ISSN Print: 2348-0009
ISSN Online: 2347-5099
Source Type: Journals
Document Type: Journal Article
Publication Language: English
DOI:
Abbreviated Journal Title: IJRCAIT
Access Type: Open Access
Publisher Name: IAEME Publication
Resource Licence: CC BY-NC
Major Subject: Physical Sciences
Subject Area classification: Computer Science
Subject area: Computer Networks and Communications
Source: SCOPEDATABASE

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