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Robust positioning algorithms for Distributed ADhoc Wireles Sensor Networks

K.Swapna , S.Rajiya sulthana

CSE,BCETW,KADAPA , AP, INDIA

CSE,BCETW,KADAPA , AP, INDIA

Abstract

Mobile ad hoc networks (MANETs) are ideal for situations where a fixed infrastructure is unavailable or infeasible. we introduce a new class of ad-hoc network called Autonomous Mobile Mesh Network (AMMNET). Unlike conventional mesh networks, the mobile mesh nodes of an AMMNET are capable of following the mesh clients in the application terrain, and organizing themselves into a suitable network topology to ensure good connectivity for both intra- and intergroup communications. Our simulation results indicate that AMMNET is robust against network partitioning and capable of providing high relay throughput for the mobile clients.

Keywords:*Mobile mesh networks, dynamic topology deployment, client tracking*

1.INTRODUCTION

WIRELESS technology has been one of the most transforming and empowering technologies inrecent years. In particular, mobile ad hoc networks (MANETs) are among the most popularly studied network communication technologies. The mobile nodes also play the role of the routers, helping to forward data packets to their destinations via multiple-hop relay. They are also a cost effective solution because the same ad hoc network can be relocated, and reused in different places at different times for different applications.

2.EXISTING SYSTEM

The mobile nodes also play the role of the routers, helping to forward data packets to their destinations via multiple-hop relay. In designing robust MANETs is to minimize network partitions.This condition is undesirable, particularly for mission-critical applications such as crisis management and battlefield communications.

2.PROPOSEDSYSTEM

In this project we propose a new class of robust In a standard wireless mesh network, stationary mesh nodes provide routing and relay capabilities. When a mesh node fails, it can simply be replaced by a new one.

3.Figures:

The mesh clients initially concentrate in one group. The mesh clients move northwards and split into two groups.

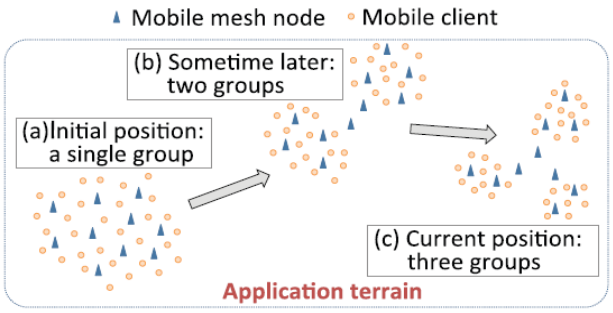

Fig. 1. Topology adaptation of the autonomous mobile mesh networ under three scenarios.

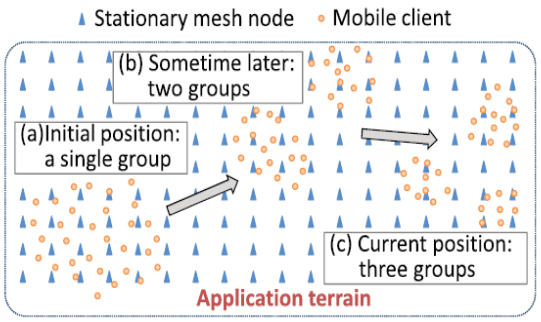

Fig. 2. Fixed grid-based square topology under three scenarios illustrated in Fig. 1.

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fig. 2. In this paper, we deal with application terrainsthat are too large and tooexpensive for such a deployment.

Fig. 3. Autonomous airborne mesh networks for crisis management.

4.Conclusion:

In this paper, we introduced a mobile infrastructure called AMMNET. Unlike conventional mobile ad hoc networks that suffer network partitions when the user groups move apart, the mobile mesh routers of an AMMNET track the users and dynamically adapt the network topology to 1seamlessly support both their intragroup and intergroup communications.

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First Author: k.swapna compelted Btech in 2013 under jntua in first class with distination and also attended national and international conferences.

Second Author : S.Rajiya sultana completed mtech in 2013 under the jntuh with distination and publish several international journels and also attended national and international conferences.