CHAPTER 1
INTRODUCTION

1.1 MOBILE COMPUTING ALGORITHMS

Mobile communication system changed the life style of the human being in the past two decades. Various research and development process is carried out to increase the effective communication system to provide sophisticated communication environment to the users. Packet traveling algorithm for effective mobile ad-hoc networks is a topic of emerging interest in the research arena of telecommunication networks. In mobile ad hoc wireless networks, multiple mobile clusters communicate without the support of a centralized coordination cluster for the scheduling of transmissions. In this project we determine the packet routing algorithm for wireless ad-hoc network to avoid the congestion over data transmission. This algorithm takes into account network scalability by investigating how the size of the multi-hop ad-hoc network impacts the quality of service. We measure the performance characteristics in terms of the percentage of blocked and dropped calls, packet loss, and packet delay.

The communication system components include MAC protocol, a routing protocol, and the treatment of voice packets. The telephone system performance is assessed in terms of packet transformation from one device to another. The performance based on the percentage of blocked and dropped calls, packet loss, and packet delay. The telephone system efficiency can be increased through effective packet transformation and control. The packet transformations achieved various routing and traveling algorithms. This project proposal initiated to analysis the exiting packet traveling algorithm and achieves the effective system architecture for telephone service.
1.2 OBJECTIVES

Determine the packets routing algorithm for wireless ad-hoc network to avoid the transformation conflict for the effective mobile communication system. In the mobile communication system quality of service can be achieved via effective packet transformation. The performance is based on percentage of blocked and dropped calls, packet loss and packet delay. We will propose the algorithm to fulfill the above characters of packet transformation in a ad-hoc mobile network environment.

1.3 SCOPE

The quality of service in the ad-mobile network is achievable via providing uninterrupted data transformation mobile infrastructure. This research derives the path to take the decision on routing of packets algorithm to achieve the reliable ad-hoc mobile network

The packet traveling algorithm implemented ad-hoc mobile network infrastructure provides an effective and quality data transformation service; it will increase the mobile communication applications potentiality.

1.4 METHODOLOGY

In this research, the researcher adopts the scientific research methodology which contains the following steps:

a. The problem is described with its integrated factors.

b. Analysis the existing scientific technology which involves concepts, algorithms and derived solutions.

c. Design the travel algorithm which provides an uninterrupted sophisticated packet transformation ad-hoc mobile network infrastructure.

d. Develop the model according to the design.

e. Observe the results and the critical evaluation for the same.
1.5 REQUIREMENT SPECIFICATIONS

1.5.1 System requirements
- Mat lab 7.1A : Networking and Algorithm Implementation
- NS Simulator to Evaluate the result
- IIS – Internet Information Server – configure the Network for the Mat Lab Implantation for Network Structure

1.5.2 Hardware requirements
- Processor : Pentium Dual Core with co-processor
- RAM : 1 MB
- Standard system in a networking environment with server

1.5.3 Software Requirements
- INPUT : Network Structure
- OUTPUT : Call cost, traffic intermediate traveling node and its weights.

1.6 SUMMARY
This is the initial process of the research work in current emerging trend of mobile communication. This work can be used to strengthen the Quality of Service to the Mobile Service Providers. Determination of packet travelling algorithm efficiency of data transmission will provide a quality of service over the network.