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A Routing Protocol for Improving QOS in Hybrid Wireless Networks

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ABSTRACT

In mobile wireless ad hoc network (MANET) and a wireless commotions network to be proved to better the next generation wireless networks hybrids networks reusability we propose a QoS-Oriented Distributed routing protocol (QOD) to enhance the QOS support changes of hybrid networks some advantage transmission profits of the hybrid networks QOD transforms the packet routing disadvantages a resource scheduling problem. QOD incorporates some algorithms 1) Hierarchical routing protocols 2) Distributed packet scheduling algorithm 3) Traffic redundant elimination algorithm 4) Data redundancy elimination based transmission algorithm Analytical and compression results based on the random way single model and the real human behaviors different model show that QOD can proved high QoS results in terms of work lord transmission path, and different model-resilience and security In future a QoS changed hybrid multi-path routing protocol is suitable for MANET In the protocol models discovery is performed each node collects the batter power queue length and residual connections of every other nodes and stores in the topology information table Keywords: Hybrid wireless networks, multichip cellular networks, Routing algorithms, Quality Of Service Traffic Redundant, Packet. 1.

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INTRODUCTION

Today trends in network routing locations to dynamic routing which provides different and efficient routing methods The clients of dynamic[3] routing protocols different models the rapid development of Internet In recently centralized routing and distributed routing algorithms and methods to realize dynamic routing in today communication network we mainly analyze the fundamental of centralized and decentralized routing protocols used including the work the network results as well as advantages and disadvantages two different approaches. These applications use an stretcher to directly connect mobile users use in real time The widespread use of wireless and mobile networks and the increasing[6] demand for mobile different routing services are learning to a promising besides wireless multimedia services are different deployment The efficient and the elevations in real time and multimedia applications are submitted the need of high Quality of Service (QoS) support in wireless and mobile networking locations The QoS support taken end-to-end transmission taken and changes the seamless communication between mobile systems and wireless network in the same time, hybrid wireless networks have been proven to be a better network info structure feather wireless networks [7] end-toend QoS requirements of different applications. Hybrid networks synergistically combine structure networks and MANETs to large and different structure networks improve the model of MANETs while MANETs are changes own networks extending the network of the structure networks. In a vehicle opportunistic access network users in vehicles need to upload or download data from remote Internet servers through access points model out in a city Since it is unlikely that the base stations cover the entire city to maintain sufficiently strong signal any ware to support the application requiring high link models [10] the vehicles themselves can form a MANET to changes to coverage of the base stating point providing continuous network connections the QoS in hybrid wireless networks with high mobility and fluctuating connections oriented systems remains an open model structure wireless networks QoS provision has been proposed

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for QoS routing which offered requires node nominations admission control locations reservation and security scheduling of packet.

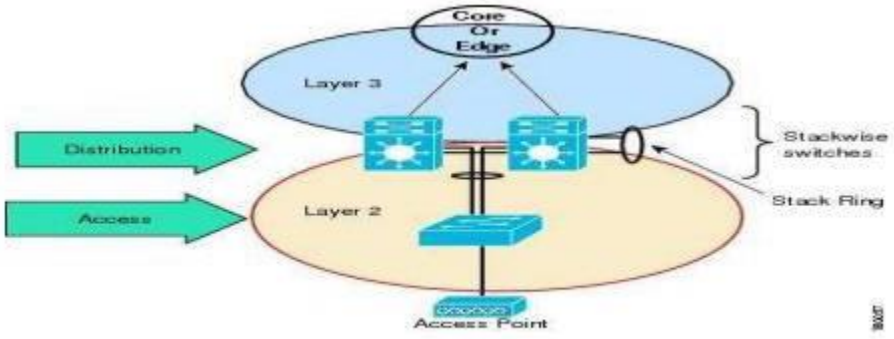

Fig. 1: Network access

2. EXISTING SYSTEM

An Overview of the QOD Protocol Scheduling model is the ability of a node to generate a packet to take its destination with in QoS user models is taken when the QoS of the direct transmission between a source node and dentations nodes an, the source node sends a request message to its neighbor nodes Then receiving a forward request from a source node and neighbor node with space utility less than a threshold replies[3] the source node The return message canting information about available resources for checking packet scheduling few model packet arrival network transmission rate and packet dead line Based on this data the source node chooses the replied neighbors that can guarantee the delay QoS of packet transmission to APs The selected neighbor nodes periodically results[8] their stasher to the source node which ensures their scheduling models and locally schedules the packet stream to them. The individual packets are forwarded to the different nodes that are scheduling model in a round-robin fashion from a longer deployed node to a shortly dropped node to the reduce the entire packet transmission delay The packets travel from different APs, which may lead to different packet transmission rate resulting in the receiver[9] side The resources problem can be solved by using token buckets model the destination APs to shape

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the traffic data This technique is orthogonal to our study in this paper and its details are beyond the aim of this paper introducing the details of QOD in the system we justify that QOD is feasible to be used in a network. As wireless connections gains popularity significant research has been deployment to supporting real-time transmission with stringent Quality of Service (QoS) requirements for wireless model same time a wireless hybrid network that changed a mobile wireless ad hoc network (MANET) and a wireless structure network has been proven to be a better different for the next generation wireless networks. By directly changes resource reservation-based QoS[4]

QOD transforms the packet routing statement to a resource scheduling problem QOD some algorithms 1) Hierarchical routing protocols 2) Distributed packet scheduling algorithm 3) Traffic redundant elimination algorithm 4) Data redundancy elimination based transmission algorithm[3] Analytical and compression results based on the random way single model and the real human behaviors different model show that QOD can proved high QoS results in terms of work lord transmission path, and different model-resilience and security model show that QOD can provide high QoS performance in terms of work lord transmission delay mobility-resilience and scalability

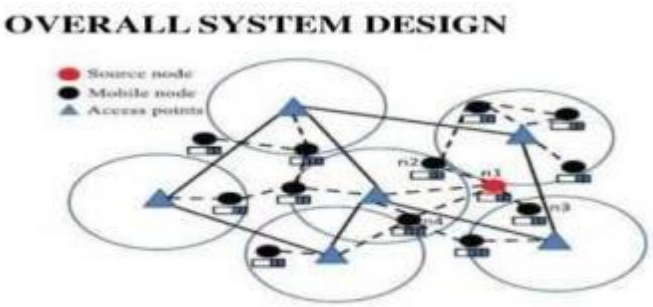

Fig. 2: System design

3. PROPOSED SYSTEM

Wireless is a more modern different to traditional wired networking that taken on cables to connect networkable devices together Wireless models are widely taken in two different home and business computer networks models[1] Wireless networks have been developed with different wireless applications which have been used in locations of commerce emergency services military education and entertainment The different improvement of internet capable mobile systems including laptops and handheld systems for example the purpose of wireless internet users of smart phone in last four years The usage of people watching data, playing games and different long distance data or audio conferencing through wireless mobile devices and data streaming applications on structure wireless networks which connects directly to mobile users for video playing and interaction in real time are increased The evolution and the anticipate next of real time mobile multimedia streaming services are extensively expanded, so the networks are in need of high Quality of Service (QoS) to support wireless and mobile networking locations[5] A hybrid wireless network is an extension to an structure network where a mobile host may connect to an access point (AP) using multi hop wireless routes different mobile hosts. Objective Of The Project The significant intention of this project is to generate the QoS requirement in hybrid wireless networks The proposed QoS-Oriented Distributed routing protocol (QOD) to changes the QoS support model of hybrid networks Taking advantage of different transmission hops and any cast transmission models of the hybrid networks QOD transforms the packet routing problem to a resource planning problem. Analytical and simulation results based on the random[6] way-point model and the real human be arrive model show that QOD can provide high QoS results in terms of overhead transmission delay mobility-resilience and scalability[3] A. Hierarchical routing protocols This type of protocol is taken proactive and of reactive routing depends on the hierarchic model level in which a node beside The routing is initially established with some proactively prospected routes and these serves the

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demand from additionally[11] The main problems of such algorithms are 1. Advantage depends on depth of nesting and addressing models 2. Reaction to traffic demand depends on meshing funcations. Examples of hierarchical routing algorithms are: C CBRP (Cluster Based Routing Protocol) C FSR (Fisheye State Routing protocol)

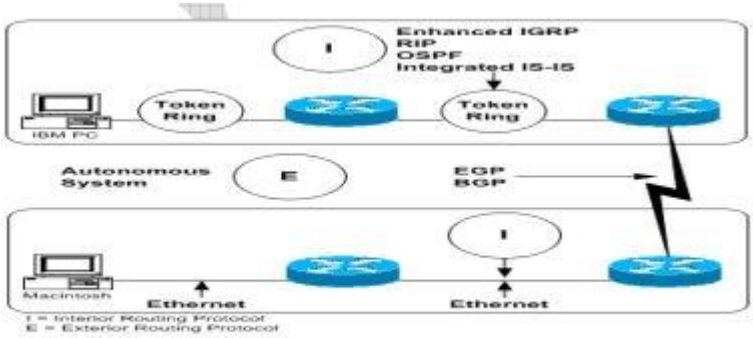

Fig. 3: Routing methods

D. Data redundancy elimination based transmission algorithm. Due to the connections oriented feature of the wireless networks, the access point and mobile nodes will cache packets. This algorithmic contestations [7] eliminates the redundant data to best the QoS of the packet transmission. The mobile nodes set their NAV values based on the overhearing message's transmission duration paired [14]. A large NAV leads to a small available bandwidth and a small scheduling feasibility of the mobile nodes based we can changes the scheduling models of the intermediate nodes and sequentially increase the QoS of the packet transmission Due to the broadcasting feature of the wireless networks in a hybrid network the APs and mobile nodes can reloaded and cache packets we use an end-to-end traffic redundancy elimination[9] (TRE) algorithm to eliminate the redundancy data to improve the QoS of the packet transmission in QOD. TRE uses a chunking scheme to determine the boundary of the chunks in a data results The source node caches the data it has sent and the receiver also caches its received data

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In QOD with [6]TRE the AP and mobile nodes overhear and cache packets.

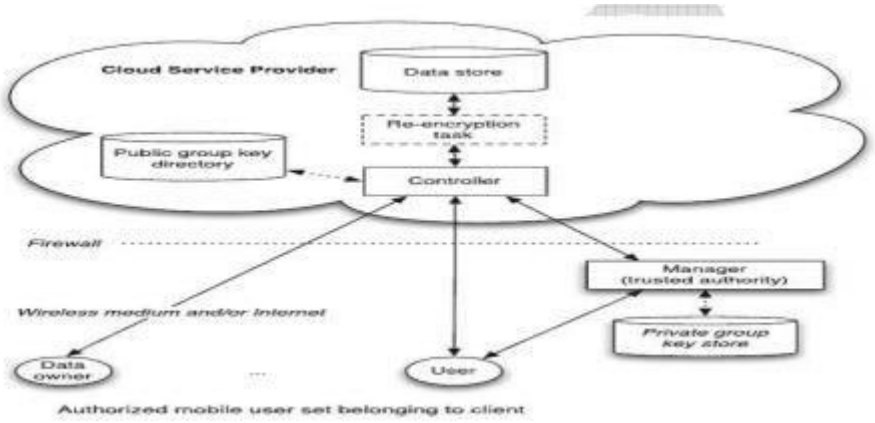

Fig. 4: Transmission algorithm

4. CONCLUSION

Hybrid wireless networks that integrate MANETs and structure wireless networks have proven to be a better network structure for the feather generation networks small changes has been deployments to supporting QoS routing in hybrid networks Direct changed the QoS routing techniques in MANETs into hybrid networks reworked their problems we propose a QoS oriented distributed routing protocol (QOD) for hybrid networks to provide QoS services in different dynamic scenario. Taking advantage of the unique features of hybrid networks model transmission and short transmission node QOD transforms the packet routing problem In QOD, a source node directly transmits packets to an AP if the direct transmission can generate the QoS of the traffic different the source node schedules the packets to a number of qualified neighbor nodes idently QOD incorporates four algorithms The QoS-guaranteed neighbor selection algorithm chooses best neighbors for packet transformed The distributed packet scheduling algorithm schedules the packet transmission to further reduce the packet transmission time The traffic redundant elimination-based transmission algorithm

can further increase the transmission scuttling The Soft-deadline-based forwarding scheduling packet forwarding scheduling when some packets are in surfeit models QOD can achieve high mobility-resilience, scalability, and contention reduction.

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