Optimizing the Capacity of Hybrid Wireless Network Using Distributed Three hop Routing Protocol

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ABSTRACT

Ultra-high performance because the mobile ad-hoc networks and wireless network infrastructure, to the benefit of both hybrid integrated wireless network is more attention. Efficient data routing protocol such as high network capacity and scope of the network is important. However, the routing protocol for ad hoc networks simply dried legacy cellular transmission system, transmission, transmission mode is combined with opportunities. This article routes hybrid wireless network three-hop (DTR) distributed protocol for proposals. Taking full advantage of major centers, DTR message transmission parts distribution shares data flow and thereby take. It is a high-speed full system restore opportunity relieves congestion through the interface space portal interface uses mobile phones to the company. As well as more complete and comprehensive centers for sending more centers for transplant use. In addition, DTR fairly short length of time in road maintenance and the elimination of overhead is low. DTR more points is to avoid congestion control algorithm. Theoretical analysis and simulation results, performance, capacity, DTR show superiority over other routing protocols, flexibility and scalability beyond. Based on the weight of efficiency in managing the crowd, and show the results of the algorithm places.

INTRODUCTION

Uplink and dryness, but the difference between the cells and the cells of the same type of traffic to any interference between cells . Most likely as a route protocol, DTR production costs will be reduced by eliminating the search and route maintenance. In addition, good roads, long, short-distance transmission, and high operational reliability and efficiency of its remarkable features is the balanced weight distribution. Order features, a hybrid of different ways to increase the capacity of wireless networks are applied methods. Cellular network and staff proposed derivatives multihop. Coordination point spread function and the function Hsieh, a hybrid with the IEEE 802.11 network architecture test. Integrated cellular and ad hoc wireless communication networking model suggested. Network. There to operate a wireless network to improve the performance of hybrid wireless network capacity in the direction of the hybrid system (mobile or BSES title) other methods to study the proposed transmission line effects.

MODULE DESCRIPTION LOAD-BALANCING:

Any Increase in union association of native packet processing, transfer the data stream, as well as delays in two packages cannot be disordered are way out of limit significant portion will be protected; And flow, but two packages of pills in a variety of flow before the end of the last packet of milk dropped packets will be sent. Active bleeding, a hash table, the only additional burden, but rather small set, and the access speed to ultrafast reduce the number of tablets can be passed to the chipset. The system also adapts the table size remain unchanged for more than a thousand, and based on an external port on the line speed, the system provides the scale.

DTR:

Ask the group buffer management modules and class hierarchy as almost all packets in output queues are aligned. Dressing package production line scheduling in boxes using the information provided. Bevirtually stream of packets in the queue and will be delivered to the command buffer. Therefore, the packets arrive on IntraFlow multiplexer order holdas your order. The model stage

switching output aligned in parallel selected. Theorem we packets are delayed first degree in the union. And then we go to the end of the second phase of the study.

WIRELESS NETWORK:

Multistage multiplane by Chao et Clos-networkbased we consider the change. This is the input / output ports externally, and made five times with a high-level architecture switch modules same architecture. Klaus internal structure similar to the first and last stages of the PPS each including input and output demultiplexers multiplexers. M2Clos 2-4 times the best build parallel data transfer; However, not every airline's initial support of large port count, but the three-stage Clos network switch to the mixture. Clos network, in each of the first phase of one of the K input module has been created. IM modules and each is connected to each output link, packet switches.

Library network in the second phase will be similar meter.

RELATED WORK

In order to improve the efficiency of a hybrid wireless network, with different routing methods have been proposed various features. A transmission mode and ad hoc mode cellular transmissions to these integration methods. BS designed to study how Manet Dousse Boolean increase capacity Poisson models. Lynne multihop cellular networks and proposed staff derivatives. Coordination point spread function and the function Hsieh, a hybrid with the IEEE 802.11

network architecture test. ad hoc mobile networks and integrated models for wireless communications Luo suggested. CHO transmission system capacity wireless network hybrid system influence the direction of research. The first node of the other titles that use ad hoc mode to communicate with the transmission, and the opportunity for better transmission performance is transferred to a cellular transmission system. The above method is not only the middle of inter-cell transmission of cells that are used to support ad hoc transmission. Inter-cell transmission, the message is sent through the ad hoc interface relevant to the gate or mobile node that is closest to the highest BS uplink transmission bandwidth. BS proposal after

the word using the cellular interface of the mobile node at the gate.

However, ad hoc routing protocols and networkinfrastructure network routing schemes often just so dry before transmission mode shared heritage as mentioned ad hoc. maintenance and operation of the elimination of a number of hop on hop transmission path DTR- two words have the same protocol. Twohop, B, more neighbors are connected to thecorresponding node bandwidth sending messages directly to BS. If not, it sends a message to the BS in amessage to the environment and increased choice of channels. Two of the three different parts of the DTRhop. First, the two-hop node on a single cell in thetransmission of relevant, DTR, and cell-cell communication more challenging real world and themiddle of the most common transmission between cells, and are associated with the deal. Second, the DTR uses system resources to meet dynamic cell and so much weight that balances traffic between neighboring cells of transmission used. In contrast, two-hop group the single transmission line serving. Another method for routing to improve the performance of

hybrid wireless networks have been proposed. Wu suggested the wild using a dynamic opportunity relay station BSES other cells to avoid traffic congestion for traffic. Lee literary multi-hop cellular network (MCN), a number of structures were measured and compared to the media center for national security and ways to reduce the cost of deployment are discussed. Check those working to improve wireless network performance hybrid for how to allocate bandwidth. Thulasiraman interference in wireless networks wireless hybrid is considering further optimize resource allocation. wireless network system hybrid package delivery cooperative work based on the coalitional game theory proposed. There are also radio relay transmission hybrid transmission direction and allocation of frequencies for wireless networks by studying some work. The works of this period, our studies DTR can be incorporated to improve performance and orthogonal. Segment performance hybrid wireless network settings and under different hybrid wireless networks is a topic of active research. Acting location NM nodes, network performance hybrids have

been studied. Liu studied under the network topology one-dimensional and two dimensional topology color wireless networking capabilities theoretically hybrid. Wang hybrid fixed wireless network is designed for multicast transplant study is based on the strong performance of the optimal strategy. our lack of transmission of ad hoc routing algorithm that DTR algorithm looks at the direct transmission mode and the transmission mode together while mobile. Instead of using multihop transmission opportunities, business centers and mass DTR node based on the use of lead two-hop. Algorithms (including the Internet with TCP layer) routing is similar to other areas before. DTR works on the Internet layer. TCP layer and the TCP layer DTR Road, this package provides a relevant destination node, it will be on the package.

CONCLUSIONS

In recent years, a hybrid wireless network, and more attention has been paid. Integrated wireless hybrid networks and network infrastructure wireless system capacity benefits for their employees, a mobile ad-hoc network will increase. However, current hybrid system of high-capacity wireless

network transmission network bus, combined with two types of routing protocols Fordata prevented. In this article, we provide three double Hop Road (DTR) of data routing protocol features integrated I propose is in the process of data transmission, the hybrid wireless network. DTR, the group shared across the existing network infrastructure at the destination, the source of the relevant section and further to the message on their neighbors move

vertices are presented, they transmit. DTR is a threeway path length limit, and always willing to improve the efficiency of the data nodes. Most likely as a routing protocol, DTR production costs will be reduced by eliminating the search and route maintenance. In addition, good roads, long, short distance transmission, and high operational reliability and efficiency of the remarkable features is the balanced weight distribution. DTR BSES congestion control algorithm in the case of unbalanced load distribution of network traffic to avoid congestion. The highest scale, efficiency and reliability, and low overhead for a hybrid wireless network for theoretical analysis and simulation results; DTR showed us

dramatically improve the efficiency and scale.

REFERENCES

[1] H Luo, R. Ramjee, P. Sinha, L. Li, and S. Lu Ucan: A unified cell and ad-hoc network architecture. In Proc. of MOBICOM, 2003.

[2] P. K. McKinley, H. Xu, A. H. Esfahanian, and L.M. Ni. Unicastbased multicast communication in wormhole-routed direct networks. TPDS, 1992.

[3] H. Wu, C. Qiao, S. De, and O. Tonguz. Integrated cell and ad hoc relaying systems: iCAR. J-SAC, 2001.

[4] Y. H. Tam, H. S. Hassanein, S. G. Akl, and R. Benkoczi. Optimal multi-hop cellular architecture for wireless communications. In Proc. of LCN, 2006.

[5] Y. D. Lin and Y. C. Hsu. Multi-hop cellular: A new architecture for wireless communications. In Proc. of INFOCOM, 2000.

[6] P. T. Oliver, Dousse, and M. Hasler. Connectivity in ad hoc and hybrid networks. In Proc. of INFOCOM, 2002.

[7] E. P. Charles and P. Bhagwat. Highly dynamic destination sequenced distance vector routing (DSDV) for mobile computers. In Proc. of SIGCOMM, 1994.

[8] C. Perkins, E. Belding-Royer, and S. Das. RFC 3561: Ad hoc on demand distance vector (AODV) routing. Technical report, Internet Engineering Task Force, 2003.

[9] D. B. Johnson and D. A. Maltz. Dynamic source routing in adhoc wireless networks. IEEE Mobile Computing, 1996.

[10] V. D. Park and M. Scott Corson. A highly adaptive distributed routing algorithm for mobile wireless networks. In Proc. Of INFOCOM, 1997.

[11] R. S. Chang, W. Y. Chen, and Y. F. Wen. Hybrid wireless network protocols. IEEE Transaction on Vehicular Technology, 2003.

[12] G. N. Aggelou and R. Tafazolli. On the relaying capacity of nextgeneration gsm cellular networks. IEEE Personal Communications Magazine, 2001.

[13] T. Rouse, I. Band, and S. McLaughlin. Capacity and power investigation of opportunity driven multiple access (ODMA) networks in TDD-CDMA based systems. In Proc. of ICC, 2002.
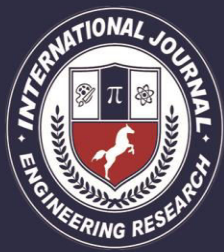
[14] H. Y. Hsieh and R. Sivakumar. On Using the Adhoc Network Model in Wireless Packet Data Networks. In Proc. of MOBIHOC, 2002.

[15] L. M. Feeney, B. Cetin, D. Hollos, M. Kubisch, S. Mengesha, and H. Karl. Multi-rate relaying for performance improvement in ieee 802.11 wlans. In Proc. of WWIC, 2007.

[16] J. Cho and Z. J. Haas. On the throughput enhancement of the downstream channel in cellular radio networks through multihop relaying. IEEE JSAC, 2004.

[17] B. Liu, Z. Liu, and D. Towsley. On the capacity of hybrid wireless networks. In Proc. of INFOCOM, 2003.

[18] H. Y. Hsieh and R. Sivakumar. A hybrid network model for wireless packet data networks. In Proc. of GLOBECOM, 2002.

[19] Y. Wei and D. Gitlin. Two-hop-relay architecture for next generation WWAN/WLAN integration. IEEE Wireless Communication, 2004.

[20] X. J. Li, B. C. Seet, and P. H. J. Chong. Multihop cellular networks: Technology and economics. Computer Networks, 2008.

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