Efficient Data Sharing and Delivery Mechanism in Mobile Devices

Mr. Fasi Ahmed Parvez[1], Ms.B.Gayathri[2], Ms. B.Navya Sree[3]
[1]Asst.Professor, [2,3]pursuing B.Tech
Department of Computer Science & Engineering,
Balaji Institute of Technology & Science, Warangal, Telangana, India.

Abstract :

With the advance growth of smart phones, peer-peer, ad hoc. data sharing has became an emerging mechanism often here by a new source of content sharing system is must .at present it's not up to the level using smart phones the data sharing is done but the life time of device is not constant .so in this paper we are proposing a new system for content sharing with proposed forward protocols and message carriers. our approach related to the efficient sharing mechanism and delivery by using smart devices where the resolving and evaluation is the main part .We implement a sample application on commercial smart phones, peer to peer .we validate its efficiency to analyze the practical feasibility of the content sharing application. Which approximately results in increasing CPU overhead and reduces the battery lifetime of a Smartphone?

KEY WORDS: ROUTING, NETWORK, OPF.

I. INTRODUCTION

Mobile computing is the discipline for creating an information management platform, which is free from spatial and temporal scenario. Which allows its users to access and process the information from anywhere? The state of the user, static or mobile may not affect the information management of the mobile platform .user can continuously access and manipulate data while traveling on plane, in car, ship,...etc. the discipline creates an mechanism that the data and sufficient processing power are available t where as in reality they may be located far away. Otherwise Mobile computing term used to refers a variety of devices that allow people to access information from where ever they are accessing and authenticating.

Figure 1: Structure of mobile computing

FOLLOWING DEVICES USED FOR THE MOBILE COMPUTING:

- Smart phones
- Tablet computers
- Net books
- Ultra-mobile PCs
- Wearable computers
- Palmtops/pocket

II. LITERATURE SURVEY:

2.1 Ad HOC networks connected moderately for routing epidemically:

Peer to peer & ad hoc routing protocols allow nodes with Wi-Fi adaptors to communicate with any pre-existing network infrastructure. Predefined ad hoc routing rules, while strongly changing network topology, assume the connected path from source to destination. The proposed limitations with physical limitations and networks has been improved the adhoc and peer to peer[2] devices with valid authentication. Here we propose a method in content deliverying in the case where there is no connected path from server to destination or

when a network path exists at the time a message Is initiated. We propose an Epidemic Routing with random pair-wise exchange of content among mobile -mobile and peer to peer hosts ensure eventual message delivery. The goals of Epidemic Routing [1] are to: i) maximize content delivery rate, ii) reducing the message latency.

2.2 DTN Routing as a Resource Allocation Problem:

Many routing protocols use different procedures including packed delivering and mechanisms with replication, network coding. The average delivery latency with specific routing system. Source allocation problem that translates the routing metric into per-packet utilities which determine how packets should be replicated in the system. Here the DTN[1] routing system will translate how the metric of per packet utilities are been determined and routed.

Here we propose a prototype of RAPID vehicular [1] test based real traces. Where the replication of content delivery will be easy to determine.

2.3 Data Mules: Modeling a Three-Tier Architecture for Sparse Sensor Networks

This paper presents architecture to collect sensor data in sensor networks. This approach exploits the present scenario of mobile entities present in the environment. Pick the content from the sensors with in close range, buffer, and drop off the data to wired access points. Which leads to max power savings at the sensors as they only have to transmit over a short term? Here simple analyzing model for understanding performance as system parameters be modeled. It assumes two-dimensional random walk for mobility .here key system variables such as number of MULEs[2], access points and sensors. The ability to measure the data success rate and the required capacities on the sensors and the MULEs. The development and duplication of systems are further created using set of rules.

2.4 Probabilistic Routing in Intermittently Connected Networks

Here we consider the problem of routing irregular connected networks. There is no guarantee in such networks, at any time the paths connected between destination and source exists, providing traditional routing protocols unable to convey messages between hosts. For such networks we offer a prospect routing protocols.

2.5 An Optimal Probabilistic Forwarding Protocol in Delay Tolerant Networks

Due to inconstancy in nodal mobility, DTN routing usually employs multi-copy forwarding schemes. More effort has been concentrated on Probabilistic forwarding to stay away the cost related with flooding, which points to reduce the cost while preserving a high performance rate by forwarding messages to nodes that have high delivery probabilities. This paper aims to provide the expected delivery rate while fulfilling a certain number of forwarding message. In this we suggest an optimal probabilistic forwarding (OPF) protocol [3], here we use opf protocol for partial routing the content to perform trace driven mechanism.

III. EFFICIENT DATA SHARING:

The modules we use in this paper are Dynamic Neighbors, movement tracking, mobility learning and mobile prediction. Neighbor's discovery important task for routing the protocols. In delay- tolerant networking the efficient neighbor discovery significantly improves the performance of the routing protocols. In real implementations, frequent hello messages are not accessed due to high energy consumption. In this implementation, we found that the content sharing performance can be improved with a simple dynamic neighbor discovery When an application does not have any queries or content to forward, the device is in discoverable mode and does not broadcast periodic hello messages through the router. The Moment tracking is the Activity Manager monitors the acceleration vector of a three-axis accelerometer and detects the motion of the user. It enables the moment of the user accessing the data. Basically mobility monitoring typically visit a number of places, but not all of these are meaningful for learning with mechanism. Content sharing is successfully deployed in the places where smart device users stay long span of time, bandwidth, and the network interface will play a vital role .here by it enables the monitoring system with accessible properties.

3.1 Discovering and Learning Meaningful Places:

Present the available location mechanism focus on providing the information. Which is insufficient to discover meaningful places because the physical location is not exactly generated at the same situation? In addition to this information cannot a place that has a similar geo code but different floors.

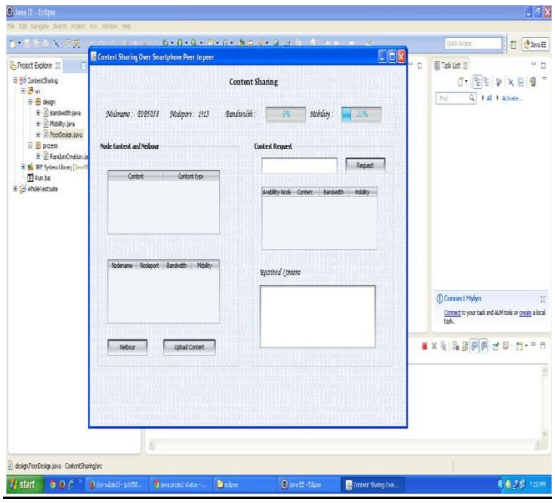

Figure 2: center sharing.

IV. CONCLUSION:

Here we have given Smartphone-based system network, which is used by today's phones. Protocols are build congruity, for sharing a design sharing algorithm. A utility based learning and function based computing prediction is done through conventional method. Contact sharing history is not necessary for this system. Geographical and unusual valid data are known by us. A scheme is proposed by considering a characteristic content, consider queries distributed for content in an 30 miles (ca. 48 km) extent area from the surroundings of the required materials, A 0.6 percent chances had by searcher to find the content while producing 30 percent more transmission cost. Also, the period limit on query distributions reducing the transmission cost. Most probably the important proposal for protocol correctly discovers and delivers 88 cents of materials within 4 hours when the contents are available only in 20 percent of node.

REFERENCES:

[1] Ahamed, B. B., & Yuvaraj, D. (2018, October). Framework for Faction of Data in Social Network Using Link Based Mining Process. In International Conference on Intelligent Computing & Optimization (pp. 300-309). Springer, Cham

[2] A. Vahdat and D. Becker, "Epidemic Routing for Partially Connected Ad Hoc Networks," technical report, Dept. of Computer Science, Duke Univ., Sept. 2000.

[3] A. Balasubramanian, B.N. Levine, and A. Venkataramani, "DTN Routing as a Resource Allocation Problem," Proc. ACM SIGCOMM, pp. 373-384, 2007.

[4] R.C. Shah, S. Roy, S. Jain, and W. Brunette, "Data Mules: Modeling a Three-Tier Architecture for Sparse Sensor Networks," Elsevier Ad Hoc Networks J., vol. 1, pp. 215-233, Sept. 2003.

[5] A. Lindgren, A. Doria, and O. Schelen, "Probabilistic Routing in Intermittently Connected Networks," SIGMOBILE Mobile Computer Comm. Rev., vol. 7, no. 3, pp. 19-20, 2003.

[6] C. Liu and J. Wu, "An Optimal Probabilistic Forwarding Protocol in Delay Tolerant Networks," Proc. ACM MobiHoc, pp. 14, 2009.

[7] J. Wu, M. Lu, and F. Li, "Utility-Based Opportunistic Routing in Multi-Hop Wireless Networks," Proc. 28th Int'l Conf. Distributed Computing Systems (ICDCS '08), pp. 470-477, 2008.

[8] T. Spyropoulos, K. Psounis, and C.S. Raghavendra, "Spray and Wait: An Efficient Routing Scheme for Intermittently Connected Mobile Networks," Proc. ACM SIGCOMM Workshop Delay- Tolerant Networking (WDTN '05), pp. 252-259, 2005.

[9] T. Spyropoulos, K. Psounis, and C. Raghavendra, "Efficient Routing in Intermittently Connected Mobile Networks: The Single-Copy Case," IEEE/ACM Trans. Networking, vol. 16, no. 1, pp. 63-76, Feb. 2008.

[10] Sivaram M,Batri K," Odd and Even Point Crossover Based Tabu GA for Data Fusion in InformationRetrieval", http://hdl.handle.net/10603/38935,10-Apr-2015.

[11] I. Cardei, C. Liu, J. Wu, and Q. Yuan, "DTN Routing with Probabilistic Trajectory Prediction," Proc. Third Int'l Conf. Wireless Algorithms, Systems, and Applications (WASA '08,), pp. 40-51, 2008.

[12] Q. Yuan, I. Cardei, and J. Wu, "Predict and Relay: An Efficient Routing in Disruption-Tolerant Networks," Proc. 10th ACM MobiHoc, pp. 95-104, 2009.

[13] E.M. Daly and M. Haahr, "Social Network Analysis for Routing in Disconnected Delay- tolerant MANETs," Proc. Eighth ACM MobiHoc, pp. 32-40, 2007.

[14] N.B. Chang and M. Liu, "Controlled Flooding Search in a Large Network," IEEE/ACM Trans. Networking, vol. 15, no. 2, pp. 436-449, Apr. 2007.

[15] C. Avin and C. Brito, "Efficient and Robust Query Processing in Dynamic Environments Using Random Walk Techniques," Proc. Third Int'l Symp. Information Processing in Sensor Networks (IPSN '04), pp. 277-286, 2004.

[16] Ahamed, B. B., & Hariharan, S. (2012). Implementation of Network Level Security Process through Stepping Stones by Watermarking Methodology. International Journal of Future Generation Communication and Networking, 5(4), 123-130.

Authors:

Mr. FASI AHMED PARVEZ is Associate Professor and HOD in BITS, Telangana India. He is pursuing his Ph. D. in data mining. He has more than 15 years of experience in the field of teaching engineering students. He has published more than 20 papers in International Journals. He has presented 6 research papers at various National/International conferences. He is life member of ISTE, CSI. His research areas include mining, data base, programming languages.

B. GAYATHRI
Pursuing B.Tech CSE in Balaji Institute Of Technology & Science

B. NAVYASREE
Pursuing B.Tech CSE in Balaji Institute Of Technology & Science.