A SURVEY ON PEER-TO-PEER CONTENT BASED FILE SHARING IN DISCONNECTED MOBILE AD-HOC ENVIRONMENT

S.MYTHILI, S.LAKSHMI NARASIMMAN

***Abstract*—Now most of us are using smart phones and laptops and sharing files from one to another. This paper tells how to transfer files efficiently. Discover-Predict-Deliver is used for efficient content sharing. Here we are to provide the various algorithms used in the Manet and their features.**

***Index Terms*— Manet, File sharing, peer-to-peer.**

I. INTRODUCTION

Mobile computing is the discipline for creating an information management platform, which is free from spatial and temporal constraints. The freedom from these constraints allows its users to access and process desired information from anywhere in the space. The state of the user, static or mobile, does not affect the information management capability of the mobile platform. A user can continue to access and manipulate desired data while traveling on plane, in car, on ship, etc. Thus, the discipline creates an illusion that the desired data and sufficient processing power are available on the spot, where as in reality they may be located far away. Otherwise Mobile computing is a generic term used to refer to a variety of devices that allow people to access data and information from where ever they are.

Applications of Mobile Computing:

Vehicles:

Tomorrow's cars will comprise many wireless communication systems and mobility aware applications. Music, news, road conditions, weather reports, and other broadcast information are received 384 k-bits/s. For remote areas satellite

Communication can be used, while the current position of the car is determined via global positioning system (GPS). Additionally, cars driving in the same area build a local ad-hoc network for fast information exchange in emergency situations or to help each other keeping a safe distance.

Emergency:

Just imagine the possibilities of an ambulance with a high quality wireless connection to a hospital. After an accident, vital information about injured persons can be sent to the hospital immediately. There, all necessary steps for this particular type of accident can be prepared or further specialists can be consulted for an early diagnosis.

Business:

Today's typical traveling salesman needs instant access to the company's database: to ensure that the files on his or her laptop reflect the actual state, to enable the company to keep track of all activities of their traveling employees, to keep databases consistent etc., with wireless access, the laptop can be turned into a true mobile office.

II. Literature Survey

[1]A. Vahdatand and D. Becker describe Mobile ad hoc routing protocols allow nodes with wireless adaptors to communicate with one another without any pre-existing network infrastructure. Existing ad

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hoc routing protocols, while robust to rapidly changing network topology, assume the presence of a connected path from source to destination. Given power limitations, the advent of short-range wireless networks, and the wide physical conditions over which ad hoc networks must be deployed, in some scenarios it is likely that this assumption is invalid. In this work, we develop techniques to deliver messages in the case where there is never a connected path from source to destination or when a network partition exists at the time a message is originated. To this end, we introduce Epidemic Routing, where random pair-wise exchanges of messages among mobile hosts ensure eventual message delivery. The goals of Epidemic Routing are to: i) maximize message delivery rate, ii) minimize message latency.

[2]A.Balasubramanian, B.N. Levine, and A. Venkataramani describes many DTN routing protocols use a variety of mechanisms, including discovering the meeting probabilities among nodes, packet replication, and network coding. The primary focus of these mechanisms is to increase the likelihood of finding a path with limited information, so these approaches have only an *incidental* effect on such routing metrics as maximum or average delivery latency. In this paper, we present RAPID, an *intentional* DTN routing protocol that can optimize a specific routing metric such as worst-case delivery latency or the fraction of packets that are delivered within a deadline. The key insight is to treat DTN routing as resource allocation problems that translate the routing metric into per-packet utilities which determine how packets should be replicated in the system. We evaluate RAPID rigorously through a prototype of RAPID deployed over a vehicular DTN test bed of 40 buses and simulations based on real traces. To our knowledge, this is the first paper to report on a routing protocol deployed on a real DTN at this scale. Our results suggest that RAPID significantly outperforms existing routing protocols for several metrics. We also show empirically that for small loads RAPID is within 10% of the optimal performance.

[3] R.C. Shah, S. Roy, S. Jain, and W. Brunette describe that presents and analyzes architecture to collect sensor data in sparse sensor networks. Our approach exploits the presence of mobile entities (called MULEs) present in the environment. MULEs pick up data from the sensors when in close range, buffer it, and drop off the data to wired access points. This can lead to substantial power savings at the sensors as they only have to transmit over a short range. This paper focuses on a simple analytical model for understanding performance as system parameters are scaled. Our model assumes two-dimensional random walk for mobility and incorporates key system variables such as number of MULEs, sensors and access points. The performance metrics observed are the data success rate (the fraction of generated data that reaches the access points) and the required buffer capacities on the sensors and the MULEs. The modeling along with simulation results can be used for further analysis and provide certain guidelines for deployment of such systems.

[4] A. Lindgren, A. Doria, and O. Schelen describes that the problem of routing in intermittently connected networks. In such networks there is no guarantee that a fully connected path between source and destination exist at any time, rendering traditional routing protocols unable to deliver messages between hosts. We propose a probabilistic routing protocol for such networks.

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[5] C. Liu and J. Wu describes that Due to uncertainty in nodal mobility, DTN routing usually employs multi-copy forwarding schemes. To avoid the cost associated with flooding, much effort has been focused on probabilistic forwarding, which aims to reduce the cost of forwarding while retaining a high performance rate by forwarding messages only to nodes that have high delivery probabilities. This paper aims to provide an optimal forwarding protocol which maximizes the expected delivery rate while satisfying a certain constant on the number of forwarding per message. In our proposed optimal probabilistic forwarding (OPF) protocol, we use an optimal probabilistic forwarding metric derived by modeling each forwarding as an optimal stopping rule problem. We also present several extensions to allow OPF to use only partial routing information and work with other probabilistic forwarding schemes such as ticket-based forwarding. We implement OPF and several other protocols and perform trace-driven simulations. Simulation results show that the delivery rate of OPF is only 5% lower than epidemic, and 20% greater than the state-of-the-art delegation forwarding while generating 5% more copies and 5% longer delay.

III. CONCLUSION

P2P considers both node interest and contact frequency for efficient file sharing. Interest extraction identifies nodes' interests; Community construction builds common-interest nodes with frequent contacts into communities. Thus the files can be transferred efficiently between peers.

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AUTHORS BIOGRAPHY*:*

MS.S.MYTHILI currently pursuing B.Tech, Information Technology at IFET College Of Engineering, Villupuram, India.Her area of interest includes Data Structure and Networking.

Mr.S.LakshmiNarasimmancompleted B.tech information Technology from annauniversity, Chennai and completed M.Tech in CSE from Bharath University. Interested in computer networks, formal languages and data mining.

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