Proposal for CMPT 880 Project

Project Title: Content Sharing in Ad-hoc networks

Presenter

Shahriar Kaisar

Contents

- Introduction
- Why content sharing is important ?
- Main objectives of the project
- Issues related with content sharing
- Related Studies

Introduction

properties of the modern communication devices
(e.g. smart phones, notebooks etc.)

http://blog.tsheets.com/wpcontent/uploads/2008/10/smartphone1.jpg

http://etftrends.typepad.com/photos/uncategorized/2007/12/26/nokiae61smartphone.jpg

- High speed data processing
- Huge amount of storage
- Peer to Peer communication capabilities

Usage of modern communication Devices

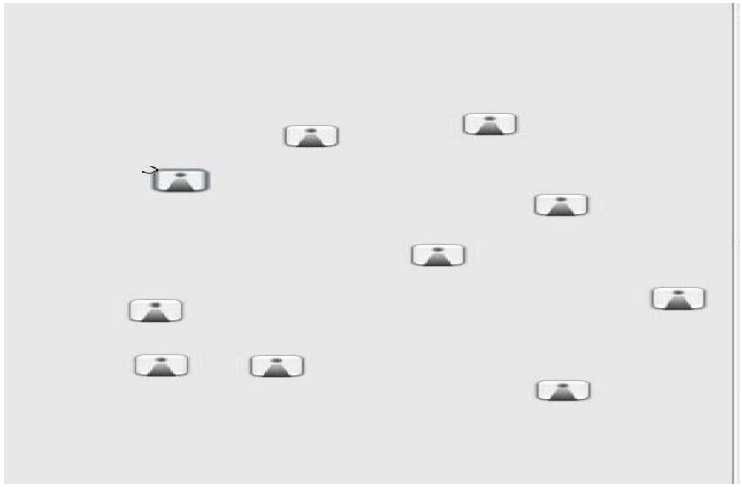
- Storing content like-
  - ❖Music
  - ❖News
  - ❖Information of different kind

Why content sharing is important ?

- Problems with internet connectivity
  - ❖Wireless bandwidth is a limited shared resource
  - ❖Expensive
- Efficiency of peer to peer communication
  - ❖ multiple short range communication
  - ❖ Less expensive

Main objectives of the project

- Creating a simulation
- Observe the behavior of the nodes
- Perform extensive analysis to obtain better understanding
- Exploring more issues based on the findings



http://www.downloadic.com/images1/AODV-Simulator-Pre-Alpha.png

Issues related with content sharing

- Source Selection
- Content selection
- Trustworthiness

Issues related with content sharing(cont…)

- Freshness of a particular content
- Providing incentives to peers
- The idea of request list

Freshness of a particular content

- Some contents change rapidly (e.g. stock market data)
- User will try to copy content whenever any update is available
- maximize the freshness of the content at a minimum cost.

Providing incentives to peers

Candidates for incentives

- Peers providing large number of contents
- Peers providing frequent update

The idea of request list

- Peers can pass a request list to neighboring peers
- Identify Which request to be fulfilled
- Store data according to request list

Related studies

- Media sharing using historical data [1]
- Bluetooth content distribution in public transport [2]

[1] Liam McNamara, Cecilia Mascolo, Licia Capra. Media sharing based on Colocation Prediction in Urban Transport. *MobiCom'08, September 14–19, 2008, San Francisco, California, USA*

[2] J. LeBrun and C. Chuah. Bluetooth Content Distribution Stations on Public Transit. In *MobiShare '06: Proceedings of the 1st Workshop on Decentralized Resource Sharing in Mobile Computing and Networking, pages 63–65, NY, USA, 2006. ACM.*

Media sharing using historical data

- Predict collocation of a passenger using previous data
- Download content using the predicted data

Bluetooth content distribution in public transport

- Distributing Data a from Central hub located in a bus
- Passengers can download data while travelling