CSC714 Project Report 1

Android wifi Social Network

Team:
Philip Marquis - ppmarqui
Sushmita Lokala - slokala

Project URL : http://www4.ncsu.edu/~ppmarqui/csc714/

Proposed Project:

Our project develops a system where users within a social network can share information about the strength of wifi networks within their area on devices that run the Google Android. We intended to publish the WiFi information of all the friends on the Google Maps

Accomplished Tasks:

We figured out a way of getting information of all the Wifi networks in the current Location using the WifiManager class of the Android SDK. Using this class we have been able to read all the wifi networks and their corresponding signal strengths in the same location.

Challenges:

Our initial investigations into existing technologies turned out to be fruitless. We were hopeful about the Google Latitude project, but unfortunately it does not offer a public API that our application can access. In addition, we found an open source project ("Where Are My Friends") that displays friends' geographic data on a Google Map overlay. Unfortunately, this project only obtains geographical data from the postal addresses in the contact list and offers little promise for social networking. We also plan to work with other CSC714 groups to achieve the data server functionality.

Future Work:

Our work will proceed in two phases. The first phase will entail mapping the wifi data on the phone. That is, the user's current wifi network status will be displayed on a

Google Map, along with the data from previous geographical locations that the user has visited. This data will be stored locally on the user's phone, so that wifi data may be retrieved at any time.

Phase two consists of sharing the wifi data with peers. We envision a centralized server that can store the wifi data. Then any friends may access this data, which will be displayed in conjunction with any other user's wifi data. The result will be a Google Map containing the user's wifi data along with friends' wifi data. The data structure stored on the server will contain the following:
-Geopoint data (longitude, latitude)
-list of wifi networks
-Each network's signal strength (decibels?)