CSC714 Project Proposal

Android wifi Social Network

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

Abstract:

The current project targets at developing a platform where users within a social network can share information about the wifi networks within their area on devices that run the Google Android. This feature is handy if a user wants to know if a particular location has a WiFi network that he can use , without actually going down to the location. Then, all he needs to do is look up the wifi networks of someone on his friends list , who is in that location. We currently plan to publish the WiFi information as part of the user's status message on the Google latitude , that provides a social networking platform.

System Description:

The HTC Dream phone runs the Google Android operating system, which can be used as a social networking tool that interacts with other Android users. Android is an internet-enabled platform and the SDK supports 802.11 via a Java WifiManager. This API can obtain the status of any current wifi networks in the area. We intend to gather this data and publish it to other Android users. Such a tool is very useful for locating a wifi connection if you are in need of one, but aren't sure where to look.

Once the info about the wifi networks is obtained, it must be shared with peers. To facilitate this interaction, we plan to extend the Google Latitude project, which allows Android users to share their locations with one another. The Android phone will periodically post the wifi data, and other Android users will be able to view this data on a Google Map. Other users will appear as pins on the map, and a bubble above the pin will indicate the wifi networks available, signal strength, encryption type, etc.

Google Latitude is a web application that does not appear to be open source. A primitive

way of displaying wifi info is via user status message, which may be automatically updated. If the Latitude project is unsuitable for our needs, we will devise a different protocol.

Milestones:

1. Install and learn Android SDK (Linux and Windows?)
2. Learn Wifi Manager API
3. Proof of concept: display wifi signal in real time on dev phone
4. Research Google Latitude project
5. Determine if Latitude is suitable for sharing wifi information
6. Create a Java object to store a phone's current wifi status
7. Publish wifi data to other users

References:

➢ http://www.google.com/mobile/default/latitude.html

➢ http://developer.android.com/reference/android/net/wifi/WifiManager.html

➢ http://en.wikipedia.org/wiki/Google_android

➢ http://www.howtoforge.com/installing-google-android-sdk1.0-on-ubuntu8.04-desktop

➢ http://moss.csc.ncsu.edu/~mueller/g1/