Build skeleton

Implement merchant/customer interaction

Implement direct advertisement

Test system

MoneyClip Mobile (MCM) is a web-based payments infrastructure providing fee-free transactions to customers and merchants through the use of mobile smartphones.  Mr. Joshua Cross of Hermes Commerce, Inc. is planning to make this mobile payment system more robust by providing targeted advertisements, coupons, and managing customer’s royalty programs.

This project is sponsored by Mr. Joshua Cross, CTO of Hermes Commerce Inc. in Flagstaff, Arizona. Hermes Commerce Inc. produces an application called MoneyClip Mobile (MCM) that allows users to transfer funds to and from other users, merchants or customers, without involving physical money or credit and debit cards. Mr. Cross is responsible for the development of MCM as well as for the business aspects of the product. MCM addresses the need of users to exchange funds regardless of distance.

The general problem facing MCM is competition with popular technologies such as Google Wallet and Square. Mr. Cross’ goal for overcoming this challenge is to combine all the functionalities of the competition into one application and find a niche for that application. In order to accomplish this, MCM application needs to be able to transfer funds between customers and merchants.  In addition, the application needs to determine when a customer is making a purchase from a merchant in order for the merchant to push the charge to the customer’s MCM account. Also, MCM will give customers control over the frequency and types of advertisements or coupons they receive, and it will give merchants options for when to push advertisements or coupons depending on customer trends.

This project involves implementing a localization function that notifies merchants when MCM customers are in their vicinity, allowing the merchant to push a payment request to the customer’s MCM account if the customer makes a purchase. This functionality allows true moneyless transactions. Another piece of functionality we are adding is directed advertisements and coupons based on the customer’s location and transaction history. The customers will have the ability to select the amounts and sources of advertisements that are pushed to their account via the iPhone application, Android application, or website. They should be able to customize their settings to choose differing levels of participation from the advertisements.  Merchant settings should also be available for change on the website or either mobile application.

The key architectural elements that will be implemented for the localization feature are:

* Merchant interface (Android, iOS, website)
* Customer interface (Android, iOS, website)
* Web Service
* Database

One of the key risks is the Google API limit, so each of these architectural elements will limit its use of the Google API to as little as possible.