

Note: The following is a writing sample, meant to be an internal executive-facing Product Overview document, created during the interview process for a Product Management role. It has been edited to remove references to the company it was created for, and is presented here as an example of Brian Alderman's writing and product management abilities.

“Mobile Wallet Offers” Product Overview

Drafted 4/14/2016. Refer questions to Brian Alderman (brian.alderman@alumni.cmu.edu).

Business Case and Features

The usage of mobile payment wallet apps, namely Apple Wallet and Android Pay, is expected to continue increasing in the coming years, providing a new venue for converting customers from potential to actual buyers of a product or service. Users of the Location Management Platform (hereafter “the Platform”, with example user “Sally Marketer” who manages offers and locations for “Widget Shop Inc.”) have indicated that they wish to explore this marketing opportunity by providing their end-customers (such as “Joe Coupon”) with in-app offers based on Joe’s location relative to the Widget Shop Inc. locations managed in the Platform. These offers could include coupons, promotions, and other special incentives or discounts targeted at capitalizing on the proximity of a location (i.e. a specific Widget Shop) and hopefully attracting additional business. An offer will be delivered to Joe Coupon as a push notification on his smartphone when he is near a Widget Shop location.

Since Sally Marketer’s goal is to target consumers like Joe Coupon when they are near a Widget Shop location, it is natural to incorporate this functionality into the Platform. First, this will ensure that the location information in the offer is synced with the location information found elsewhere on the Internet as driven by the Platform. Second, this functionality will be useful for eliminating location information inconsistencies when location management and offer targeting are conducted by different employees or departments, as it brings both functions into a single system. Third, utilizing the location data that is already contained in the Platform provides a streamlined process for location-based offer creation by reducing data entry needed to create offers.

It should be noted, however, that Apple’s developer documentation (linked below) provides some wise words of caution about location-based targeting in offers. It explains that since an offer ultimately must be generated per user (i.e. Joe Coupon), the number of offers required can quickly become very large. Our functionality will not generate an offer per user. Instead, it will leave the decision and logistics of which offers (associated with locations) to distribute to each Joe Coupon to our users, such as Sally Marketer. Even though offer distribution is not handled in the Platform, the potential power of streamlining the process required to create a location-based offer which can then be served to some or all the Joe Coupons that come near a Widget Shop Inc. location is an attractive marketing opportunity.

Summary of Features:

- Ability to create and manage one or more offers, each associated with one or more locations already managed in the Platform
- Ability to keep offers in sync with the location information managed in the Platform
- Ability to export location-associated offers in Apple Wallet or Android Pay format to allow our customers to distribute them to their end-customers in a streamlined way

Basic User Flow

1. The Platform user inputs information about the offer
2. Each offer is associated with one or more of the locations that already exist for that user within the Platform
3. The Platform converts and exports this information as Apple Pay (called a Pass) and Android Pay (called an Offer) objects, which the user then downloads
4. The user distributes the objects to their end-customers, using whatever method is appropriate. This ultimately generates push notifications when the end-customer is in proximity to the physical location. (Note: This distribution activity is not supported by or conducted within the Platform)

Assumptions

- This functionality will be part of the Location Management Platform ecosystem, and will utilize the existing API to search for and leverage a user's locations, including the location name, address, and telephone number.
- Up to 10 physical locations may be associated with each offer. This was a detail included in the original scope document (assignment), however, research to date indicates that no hard limit on the number of associated locations exists other than as an effort to reduce the file size of an offer.
- There will be minimum operating system requirements (both Android and Apple/iOS) to utilize this functionality. This shall be further defined following additional research into Android and iOS ecosystems.

References

Android Pay Documentation for Adding Offer Objects:

<https://developers.google.com/save-to-android-pay/guides/offers/get-started>

Apple Wallet Documentation for Creating and Adding Passes:

https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/PassKit_PG/index.html#//apple_ref/doc/uid/TP40012195-CH1-SW1

Use Cases

- Offer Creation and Management:
 - A properly permissioned Platform User searches amongst and views a list of all existing offers or a subset of them, utilizing search criteria such as offer information, expiration date, and associated location
 - A properly permissioned Platform User views the details of one specific existing offer
 - A properly permissioned Platform User creates a new offer
 - A properly permissioned Platform User copies an existing offer, including existing location associations, to create a new offer
 - A properly permissioned Platform User edits an existing offer
 - A properly permissioned Platform User searches amongst and edits one or more parameters of more than one existing offer at a time, utilizing search criteria and editing parameters such as offer information, expiration date, and associated location
 - A properly permissioned Platform User deletes an existing offer
 - A properly permissioned Platform User searches amongst and deletes more than one existing offer
 - When creating or editing an offer, a properly permissioned Platform User is notified if not all required fields have been completed
- Offer-Location Association:
 - A properly permissioned Platform User associates an existing offer to one or more locations that already exist in the Platform
 - A properly permissioned Platform User disassociates an offer from one or more locations that already exist in the Platform, which does not affect the records of those locations stored elsewhere in the Platform
 - A properly permissioned Platform User is informed within the Platform that an offer's associated location has been updated elsewhere in the Platform since the offer was last exported
 - A properly permissioned Platform User is informed within the Platform that an offer's associated location has been updated elsewhere in the Platform since the offer was originally associated with that location
 - A properly permissioned Platform User is not able to edit a location's information from within the Offer functionality
- Offer Exporting:
 - When exporting any offer, a properly permissioned Platform user is notified and the export activity ceases if not all required fields for the object being exported have been filled out
 - A properly permissioned Platform User exports and downloads a particular offer as an Apple Wallet object

- A properly permissioned Platform User exports and downloads a particular offer as an Android Pay object
- A properly permissioned Platform User exports and downloads a subset of offers, based on search criteria, as a set of Apple Wallet objects
- A properly permissioned Platform User exports and downloads a subset of offers, based on search criteria, as a set of Android Pay objects
- A properly permissioned Platform User exports and downloads all existing offers as a set of Apple Wallet objects
- A properly permissioned Platform User exports and downloads all existing offers as a set of Android Pay objects
- A properly permissioned Platform User can view all previously exported versions of a particular offer
- Permissions and Security
 - A Platform User without “Offer - View” permission cannot view any existing offers
 - A Platform User without “Offer - Create/Edit” permission cannot create a new or edit an existing offer
 - A Platform User without “Offer - Delete” permission cannot delete an existing offer
 - A Platform User without “Offer - Export” permission cannot export offers in Apple Wallet or Android Pay formats
 - A Platform Super User can view, create, edit, delete, and export all offers in the Platform

Project Plan

- Specification Phase
 - Ensure all necessary data fields for both Android Pay and Apple Wallet are defined
 - Work with a customer focus group to determine what aspects of Apple Wallet and Android Pay supported offer content should be included in this Platform functionality. For instance, Apple Wallet offers specific parameters that can be applied to Apple Watches which may not be useful to our customers.
 - Develop functional and technical requirement documents
- Development Phase
 - Phase 1: Platform input and editing functionality (Internal Release until Phase 2 completion)
 - Story A: Create/Copy an offer
 - Story B: Edit and Delete an offer
 - Story C: Associating/Disassociating an offer to a location
 - Story D: Searching and viewing offers
 - Story E: Informing users of updated location information and cleanup of all functionality

- Phase 2: Android Pay validation and output functionality (Released to Production upon completion, with Phase 1 functionality)
 - Story A: Validating offer data
 - Story B: Packaging, generating, and downloading offers
- Phase 3: Apple Wallet validation and output functionality (Released to Production upon completion)
 - Story A: Validating offer data
 - Story B: Packaging, generating, and downloading offers
- Documentation Phase (Concurrent with Phase 2 Development)
 - Develop best practices documentation for our customers to help them understand how to work with and distribute to their customers the objects exported by the Platform.
- Pilot Phase
 - Conduct a focused pilot program with 2-3 customers, updating documentation as necessary. The results of this pilot program are intended to serve as a marketing use case to encourage other customers to utilize this feature.

Potential Future Features

- Expanded support for other digital wallet app payment options, such as Square Wallet, Venmo, Paypal, etc.
- Dashboards to understand what locations are utilized within offers
- Offer export API to streamline our customer's distribution of offers to their customers
- Expansion of the number of physical locations associated with each offer (currently assumed to be capped at 10)
- Support for generating an offer for each distinct end-customer