Preliminary Investigation Report

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Report Scope

The contents of this report establish a preliminary investigation into whether or not a GPS based bus tracking system could be feasible. In this document, we will investigate the feasibility of developing, shipping, and selling this product by looking at its benefits, the current product marketplace, and any competitors. The purpose of this report is to provide the information needed to make the critical decision of choosing if it is a good idea to develop and launch this product by key decision makers. The content of this report may be considered valid for the time period 10/01/14 to 04/24/15

Product Concept

What can <product> do?
- Track buses over GPS
- Mobile real time bus tracking
- Calculate when buses arrive and bus lateness
- Bus alerting
- Business side bus reporting (lateness average)

Features of <product>
- User can favorite their most used routes
- Show the nearest bus on a chosen route using your current location
- Find your transfer bus inside of a terminal
- Notification of detours, alternate stops, and closures of all busses the user may take on their route
- Phone alerts you when a bus on route to your stop hits unscheduled lateness
- Create personalized alerts for buses arriving at stops useful to you (ie. bus that arrives just after school/work finishes)
- Derive monthly reports on which buses are most often late and which buses carry the most passengers

Benefits of <product>
- Users can know exactly when a bus will arrive
- Users know where their bus currently is (ie. if they currently missed it or there are closures and the wait time is too long for another bus they could perhaps use another route instead of waiting long periods of time for a bus).
- Users can, once arriving in a terminal, immediately orient themselves and navigate to connecting busses which helps them avoid missing their transfer
- Business can do better reporting on their bus service and how well they meet their target times

Technologies used in <product>

Busses

Busses are equipped with a global positioning system receiver which tracks their location as they navigate the city. As the busses move, gps locations are pushed over a data uplink to a master geo positioning system. This system is used to receive location updates from all of the busses.

Passengers

Passengers, whom are already equipped with smartphones, are able to view locations of the busses important to them on a map. Overlaying maps provided by a third party, passengers can see locations of busses, bus routes, as well as expected arrival times. It has yet to be decided which platforms of mobile devices will be supported.

Product Market

Where <product> will be used?

Passengers

Before a bus arrives at its stop, a soon-to-be passenger can view where the bus currently is and its calculated arrival time. They can also be notified or updated when there bus is about to arrive right after work.

When a passenger arrives at a transit or connecting station, they are asked if they would like to open a map of the building and where all the connecting busses are.

Business

At the end of each month, businesses can use the system to pull reports for how often busses make their transit stops on time.

Who will be using<product>?
- Passengers
- Businesses, People in offices

Product Benefit

Why Use <product>

This product makes it easy for everyday passengers of the transit system find their busses and ride their busses on their particular bus route. Using the busses GPS the users can track their

buses on their route. This is incredibly useful especially if the user needs to get somewhere in a hurry such as work. The user can see that they had recently missed their bus or it came early, this product will show the passenger giving them enough time to decide whether or not they want to take another route or if they wish to wait for the next bus. This product also notifies the passenger of detours, alternate stops, and closures of all busses the user may take on their route so that they aren't waiting an hour for a bus to show up that isn't coming. Everyone knows that sometimes terminals can be a hassle, everyone is in a mad rush to find their bus in time so that they don't miss their bus. Well a user of this product can use our terminal tracker feature which displays for them a map of the current terminal they are in showing them all of the busses in the terminal and the bus that they need to transfer to making transfers easier and a little less scary. The passengers may also be notified about some of their favorite routes, when a bus is calculated to arrive soon and on any current changes to their bus route (ie. bus cancellations). This is useful to a user when they are finishing work or leaving school and they receive a notification ahead of time telling them that their bus will be arriving soon. This product is not only useful for the passengers but it is also useful for the business using this product. It allows businesses to derive monthly reports on which buses are most often late and which buses carry the most passengers. This can allow the business to tweak arrival times and route durations as well as make changes to their system based on accurate data provided to them, which overall will make their passengers/customers happier in the long run.

Similar and Competing Product

Competitor
Grand River Transit (GRT) - http://www.grt.ca/en/index.asp

Competing Product
easyGo - http://192.237.29.245/hastinfoweb/

Similar Features
- The ability to plan a route from one destination to another
- Provide the user with a bus arrival times for a route
- Provides user with directions, times for each direction, whether they need to walk or take the bus and the calculated arrival time of their trip as well as when they need to get to each bus.
- Provides the user with a map showing them their route.

How <product> is different or better than their product
- Provides the user with a mobile application so they can access our product anytime
- Has alerts which can notify the user that their bus will be arriving soon or to notify them of unscheduled lateness.

- Notifications of detours, alternate stops, and closures of all busses the user may take on their route
- Find your transfer bus inside of a terminal
- Tracks buses over GPS showing their current location on the map
- Derive monthly reports on which buses are most often late and which buses carry the most passengers

Competitor

** Guelph Transit uses two other companies products separately

Guelph Transit - http://guelph.ca/living/getting-around/bus/

NextBus - http://cts.cubic.com/solutions/real-timepassengerinformation/nextbus,inc.aspx

Google - https://www.google.ca/intl/en/about/

Competing Product

Guelph Transit schedules and maps - http://guelph.ca/living/getting-around/bus/schedules/

NextBus - http://www.nextbus.com/predictor/publicMap.shtml?a=guelph&r=1A

Google Maps - https://www.google.ca/maps/preview?q=maps&ie=UTF-8&ei=YOEqVPfeJNOUyAS3nIKICw&ved=0CAYQ_AUoAQ

Similar Features

- Google Maps provides the ability to plan a route from one destination to another
- NextBus Provide the user with a bus arrival times for a route
- Google Maps provides user with directions, times for each direction, whether they need to walk or take the bus and the calculated arrival time of their trip as well as when they need to get to each bus.
- Guelph Transit provides the user with a map showing them their route.
- NextBus also provides the user with automatic alerts and bus arrival times as well as allows the user to access this information on their phones.
- Guelph Transit provided performance reports on customer complaint levels and schedule adherence
- Guelph Transit provides current advisories and upcoming advisories

How <product> is different or better than their product

- The user is notified or updated of detours, alternate stops, and closures of all busses the user may take on their route on their mobile device.
- Bring the top three products together into one product so that the user doesn't have to switch from website to website.
- Find your transfer bus inside of a terminal

- Tracks buses over GPS showing their current location on the map

References

R. Mackenzie. (2007, June 31).GUELPH TRANSIT FIRST CANADIAN SYSTEM TO USE GPS TECHNOLOGY TO HELP RIDERS PLAN TRIPS. Available: http://transit.toronto.on.ca/archives/weblog/2007/06/21-guelph_tra.shtml