CAT TRAN MOBILE

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The University of Arizona’s current CatTran schedule is extremely difficult to understand. It is a hassle to decipher what exactly these lines, colors, and times mean, and its difficulty leads people to not use the CatTran.
Our Solution

A mobile device application that will allow users to:

- Locate all stop locations, shuttle routes and times
- Plan routes with starting/ending times and locations
- View a constantly updated estimated time of arrival
- Access real-time locations of all shuttles
- Receive route changes and delays immediately
- Utilize a more user-friendly interface for rider convenience

The application will also benefit drivers by:

- Informing drivers which stops have passengers waiting
- Notifying drivers where onboard passengers wish to depart
- Allowing drivers to easily log the number of passengers

CatTran Mobile is all about making the CatTran easier to use. Riders will constantly know where the shuttles are, when they will be at each stop, and if there are delays or route changes. In addition, the route planning feature eliminates the stress and inconvenience of the CatTran. The application is completely focused on providing a more user-friendly experience to using the CatTran.
By The Numbers

* 84% of students said they were more likely to use the CatTran if this type of application was available

* Over 2,000 daily passengers, 62,000 monthly
* Over 504,407 annual passenger trips
* Over 100 hours of daily shuttle service, 2,100 monthly
* 17 fixed routes on and off campus
* 17 buses in constant circulation

A survey of nearly 1,000 students revealed that there is genuine interest in using the CatTran. However, it needs to be significantly easier to use or ridership will never reach its full potential.
The Pros

* Advertising revenue
  * Current advertising options range from $340-$4000
  * Increased CatTran usage = Increased advertising rates
  * Higher rates for most popular shuttles

* Expansion to Public Transit
  * Sell application rights to public transit systems and other universities
  * Similar applications available
    * Not as versatile, limited areas only

* Untapped market
  * 62% of colleges have no real-time arrival information for transportation services
  * University of Texas’ transit efficiency has decreased 10% in the past three years

The benefits of CatTran Mobile are not limited to students. The University could gain substantial revenue by increasing ridership and advertising rates on the CatTran. Furthermore, if the application succeeds the University could expand it to SunTran and other public transit or transportation systems at other universities.
Costs

* Expenditures
  * Application design - $10,000
  * iPad 2 (17) - $8,500
  * iPad 2 mount - RAM POD I - (17) - $1,200
  * iPad 2 signal booster - CradelPoint CTR500 - (17) - $1,900
  * Total Cost - $21,600

* Efficiency
  * The University allocates 30.3% of its transportation budget to CatTran to cover:
    * Shuttles
    * Drivers
    * Fuel
    * Cleaning
    * Maintenance
  * Higher CatTran usage = Higher efficiency

The expenditures for this application are totaled based on real products and actual figures. However, the application design is just an approximation because we do not have the knowledge to accurately forecast the cost of designing it.
Why It Works

* Funding
  * One time CatTran fee of $0.71 per student
  * Next year only
  * Covers all costs

* Wi-Fi Reconfiguration
  * Configure iPads to bypass the splash page
  * Allows for continuous Wi-Fi access through different access points
  * Easily modified by UITS

The total cost of our application totals just over $21,000. While this may seem like a large sum of money, for a large institution it is almost a negligible cost. This cost could be completely offset by a one-time CatTran fee of $0.71 charged to each undergraduate student next year. In addition, the current Wi-Fi settings would force the application to reconnect to the internet in each access point, slowing down app speed significantly. This could be easily modified by UITS to better suit the needs of our application.
Bibliography


