

Park Pay Wireless

We are building a fair and automated on-street parking payment system that helps councils maximise their revenue whilst improving customer parking experience.

We are an Isis software incubated company. Isis Innovation is a subsidiary of the University of Oxford.

Problem

When a car is parked off-road the very first thing the motorist is obliged to do is to pay for the parking. There are several means available for the same: the motorist might either use the parking meter located nearby or use mobile phone applications to pay for the parking. The conventional method of using a parking meter has been in place for more than 80 years with very little change in functionality since its invention in 1928. Some of the well-known problems with such a systems are enumerated below:

- The motorist is expected to know for how long the vehicle will be parked, prior to parking and pay for it in advance.
- The motorist faces significant inconvenience if the need arises to extend the duration of the parking.
- The motorist risks getting issued parking tickets when an invalid payment is made or an invalid ticket is displayed.

Using a mobile application to park also has its own issues:

- It is inconvenient to find the right location code prior to parking.
- Paying an additional convenience charge for every parking transaction.
- Extending parking through a mobile application requires knowledge of the expected amount of time prior to parking and pay an additional convenience charge.
- It is inconvenient to keep track of the existing parking and extend its duration at the end.

Solution

It is therefore conceived that cars should manage their own parking payments by enabling payment systems to be integrated within the vehicle: when a vehicle is parked its location is communicated to a central server. When the vehicle is driven away the duration of the parking is noted and the system automatically proceeds to debit the money from the user's account and credits it into respective council account.

The advantage with such a system is mainly that it brings a layer of convenience and control over vehicle parking. Particularly, a user:

- only pay for the duration that the vehicle is parked.
- avoids getting issued parking tickets.
- avoids additional convenience charges for extending the parking.
- has peace of mind.

Potential Market

According to vehicle licensing statistics published in 2013, it is estimated that there are approximately 35million cars in the United Kingdom. On average, a vehicle is parked and paid for thrice in a week.

The predominant end users for the system will be motorists, however there are also other opportunities like car hiring companies, corporate organization who own cars for business purposes.

Initial Market Research

A survey of 500 people from diverse backgrounds yielded encouraging results. A brief summary of the results are provided:

- About 45% of respondents use paid street parking on a regular basis.
- Of the respondents who use parking applications, 33 - 50% say that convenience and time are among the primary reasons for doing so.
- About 55% of respondents have trouble finding the parking machine.
- Almost 60% of respondents find it a major inconvenience to return to their car to extend their parking.
- About 52% of respondents find the use of the parking machine inconvenient.
- About 56% of respondents think it takes too long to pay at street parking machines.
- About 56% of respondents have significant difficulty estimating the duration of the parking.

The results confirm the problems faced by people when using street parking. They also show that people are willing to use technology to ease their parking experience: this is the market that can be tapped with the proposed solution.

Moreover, councils who enable their customers to pay through such a system will be able to maximise their revenue by reducing maintenance costs and improving efficiency of their current process along with easy maintenance of their systems. All this results in a reduction in operational cost.

Status

Product development

The system hardware and software are currently being developed in parallel for concept and prototype testing.

The hardware team has now completed its preliminary design stage and is beginning implementation. We are at the stage of testing the GPS module from several vendors to evaluate performance. Necessary hardware components have been bought and will be assembled and tested and tuned as necessary.

The software team has been working on the mathematics of the application. Database design is now partially complete and implemented. The server is entirely capable of starting and stopping parking, given the latitude and longitude.

Business Development

Contact has been initiated with the Cambridgeshire and Oxfordshire County councils. The Cambridgeshire Council is very keen to adopt our idea and have guided us in our project so far. They have also provided us with basic information about their existing infrastructure and some more possible lines of action.

Team

The team constitutes of three individuals from the areas of Cambridge and Oxford with an extensive technical background and ample experience.

Harish Shivaraj, CEO - Founder, with the several years of industrial experience in software engineering. Student at Oxford university reading software engineering.

Miquel Izquierdo, CTO - Co-Founder, with the several year of industrial experience in hardware design and firmware development. Studied at University of California reading Electrical engineering and computer science.

Nisarg Mehta, COO - Co-Founder, Student at Jesus college, Cambridge reading Information Engineering.

Shareholding

The company equity split breakdown.

Shareholders	
Harish Shivaraj	45%
Miquel Izquierdo	25%
Nisarg Mehta	20%
Isis Innovation	10%

Funding

Contact

For any further information, please send an email to

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