

Location aware mobile advertising



Company Equitech

Equitech are an innovative UK-Based IT solutions provider.

Product Dynamic advertising displays on the roofs of taxis.

Application Digital Taxi Top Advertising

Background Equitech approached BVM in 2011 to design an M2M system that would allow them to install dynamic advertising displays on the roofs of taxis. The system was to be unique in that the advert displays would be tailored in real time to the taxis' location, the time of day or around local events. The M2M system needed to understand where it was in order to select the most appropriate advert to display. Equitech also required the system to record what adverts were displayed, where, and for how long, in order to report back statistics to the advertising agency for customised billing.

Problem

Wanted something unique using GPS technology to display appropriate adverts, whilst recording what ads were displayed and reporting statistics to the ad agency for customized billing.

Brief

To design an M2M system that would allow them to install dynamic advertising displays on the roofs of taxis.



Challenges

- Conventional LCD displays are the wrong shape and struggle to be seen in the wide range of lighting conditions found in London.
- The unit needed to run off the vehicle battery, without compromising the taxis' reliability and functionality.
- The display unit housed on top of the taxi had to meet the weight constraints outlined by vehicle manufacturers.
- The unit had to be able to run for up to 30 minutes while the vehicle engine was inactive.
- The unit design had to be mindful of the financial and environmental pressures placed on taxi companies, particularly around the cost and pollution associated with increased fuel usage.

Solution

BVM designed a solution based around their OB200 mobile computer and utilised:

- Two custom LED matrix screens with independent brightness control. The construction involved an array of proprietary "tiles", a strong aluminium chassis, all covered with a fibre glass housing and clear non-reflective windows.
- A 3G and GPS antenna housed in the display unit.
- A customised enclosure for the mobile PC unit, inside the vehicle.
- BVM's well proven Capricorn module to provide location and 3G capabilities.
- A simple API that allows programmers easy access to position information and constant communications with the base server via 3G.
- Windows 7 operating system and a dedicated application written to receive and display the advertisements, log when and where they are displayed and monitor and report on the battery condition.

Outcomes

- Taxi companies have the ability to add a new revenue stream to their business model.
- Advertising agencies are able to offer their clients a new, innovative, flexible and measurable advertising medium.
- Advertisers are now able to promote their products and services in previously inaccessible locations through a targeted and dynamic platform.

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