

Report to Partnership Meeting 5 October 2012

RESEARCH AND STRATEGY DELIVERY

Talking Traveline Apps

Purpose of Report

To report to Members on the opportunity identified to introduce an audio facility within the Traveline Scotland smart phone applications that will allow the full range of Traveline information and services to be communicated to blind and partially sighted public transport passengers.

Background

Traveline Scotland has had great success in launching Apps on the 4 main smartphone platforms, providing the travelling public useful tools to allow them to get up to the minute information about the transport network on their mobile device. Through our participation in the INTERREG IVB Atlantic Area START Project HITRANS has supported the development of Traveline Scotland smart phone applications on the Blackberry and Windows phone platforms.

Following discussions and some work to make the existing suite of Apps more accessible, a project to create an App, specifically designed for use by blind and partially sighted people has been discussed. This has arisen from user feedback regarding the existing Apps and conversations between Traveline Scotland and organisations with an interest in assisting blind and partially sighted members of the public.

Proposal

The Traveline Scotland apps have been universally well received. However by nature smart phones are continuously developing and becoming more powerful. The iPhone and Android smart phones now offer the function of speaking text.

While the Traveline Smart Phone apps have improved the accessibility of travel information they are not perfect for visually impaired users, not by choice, but rather the impossibility of voice description of a map based interface, stops etc. Traveline have been investigating how this can be overcome and have concluded that it should be feasible to develop a public transport app for this group of customers.

The concept for this is an application that can convert anything that is graphically displayed into something that is displayed in tabular form that can be read and spoken. The smart phone GPS system will find nearby stops and display them on a map for selection by the user. Rather than display them on a map it could convert them to a table/list which can be spoken. The visually impaired user then selects the required stop from the spoken list. The app would then show a table of departures from the selected stop and again can speak through that table.

Traveline have proposed this development as a good opportunity to build on the existing family of apps, not for modal shift or commercial reasons, but rather to improve accessibility for a small, but important group of customers.

The Proposal

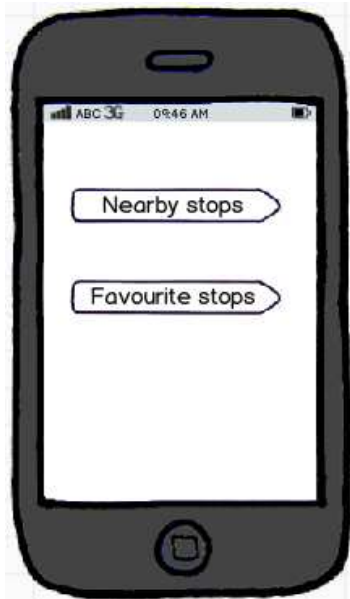
- The App will be designed (at this stage) to offer the following functions
 - A simple home screen with 2 main options – ‘Nearby Stops’ and ‘Favourite Stops’
 - Bus departures from Stop – a list of the next departures from the selected bus stop (offering Real-time information where available) in a simplified version of the existing App
 - Route selection and ‘Speaking Route’ option – Described in detail in the next section
- The App will be Broadly Text based with attention given to simplicity, readability and performance rather than aesthetic graphical design.
- The Spoken and voice activated elements of the App will use the OpenEars API (subject to discussion with RNIB and other interested parties)
- See Fig 1. At the end of this document for initial wireframe design and interaction annotations
- Stop identification and selection on the App will utilise the existing mechanisms used by the current Apps
 - Naptan for Stop identification
 - The Next Buses API for departures information
 - The Trapeze Protocol Buffer for Route identification
 - The device GPS for location
- The App will be offered in the most effective agreed colour combination recommended at the point of commissioning
- Haptic feedback will be used where Applicable to allow users to easily tell when they are carrying out a touch based selection.

The OpenEars API

- OpenEars is a shared source IOS framework which enables voice activation and text to speech functionality on iPhone Apps
- The proposed App will use an available OpenEars API to perform the speech aspects of the functionality
- The API is free to use and supports large vocabulary recognition
- OpenEars will be used alongside a library of terms created specifically for this App.

The App

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The Routes functionality of this App has some dependence on the routes work being done on the existing Traveline Scotland Apps.

Budgetary Implications

This project will ensure that every bus stop in the NAPTAN database will become an audio enabled stop increasing accessibility and saving Councils from having to install audio hardware at bus stops. This will have practical benefits in the Highlands and Islands where our real time bus information will be available at all stops (where real time tracking enabled buses operate) at no further cost.

Traveline Scotland have requested a contribution of £2,200 from HITRANS to support the development of this application. This request was made to all Regional Transport Partnerships and it was agreed at the joint RTP Chairs meeting on 5th September 2012 that this was a project that all 7 RTPs were keen to support. Therefore the budget has been approved for this project.

Recommendation

1. Members are asked to note this report.
2. Members are asked to retrospectively approve the sum of £2,200 to be granted to Traveline Scotland to develop the Talking Traveline service. This cost will be funded from the Real Time Information Project budgeted for in the 2012/13 Research and Development Programme.

Risk	Impact	Comment
RTS delivery	√	Supports RTS objectives of improving passenger transport services and transport information.

Policy	√	Increases accessibility to public transport services and provided better information to service users.
Financial	-	The project qualifies for funding from the budget committed within the 2012/13 Business Plan for real time information delivery.
Equality	√	The Talking Traveline service will have a significant positive impact on improving access to public transport services for blind and partially sighted people.

Report by: Ranald Robertson
Designation: Partnership Manager
Date: 18th September 2012