

Info Polis

----- MEMBER IN THE SPOTLIGHT – CITY OF EDINBURGH -----

Real-time passenger information in Edinburgh - Bustracker

The City of Edinburgh Council has won, jointly with Lothian Buses, the 2010 Scottish Transport Award for Excellence in Technology and Innovation for its Bustracker project.

The City of Edinburgh Council recognised the value of real time passenger information (RTPI) as a means of enhancing the comfort and convenience of public transport travel, and of encouraging modal shift. The first Bustracker signs first appeared on-street in 2004, and since then the project has gone from strength to strength. The successful partnership between the Council and Lothian Buses in providing on-street real-time passenger information (RTPI) signs for an automatic vehicle location equipped fleet is well known; and in the past two years there have also been long strides forward in our RTPI provision online, and to mobile devices.

Today, Edinburgh is arguably amongst the frontrunners of UK local transport authorities in its provision of multi-media timetable and RTPI information to a wider range of passengers than ever before.

The website www.mybustracker.co.uk first launched in February 2008 alongside a Wireless Application Protocol (WAP) site for use on mobile phones. Real time information was immediately available for all bus stops served by Lothian Buses (Approx. 2500) and meant that passengers were no longer solely reliant on the provision of an on-street sign, or on the wayside timetable information.

Since then, the number of daily hits has continued to grow steadily, with marked increases during times of service change or of adverse weather conditions. In April this year, the number of monthly hits had reached an all-time high, approaching 2.8 million site visits.



Screenshot from www.mybustracker.co.uk

Recent developments



EdinBus, the iPhone application was launched in August 2009. This application has been developed by a local software developer with the assistance of the Council. The application uses Global Position System (GPS) technology to determine the traveller's location. It then shows nearby bus stops, and gives walking directions as to how to reach them. Maps can be scrolled using the iPhone's touchscreen.

This app has now been downloaded by over 120,000 iPhone and iPod owners. It links to Lothian Buses Twitter feed and EdinBus's own Twitter feed, which is updated regularly by the local software designer. Favourite or frequently used bus stops can be saved for easy access. This success has now been augmented by the release of an Android 'app', again produced by a local student and software developer as part of his undergraduate studies at Heriot Watt University.

An illustration of EdinBus on iPhone

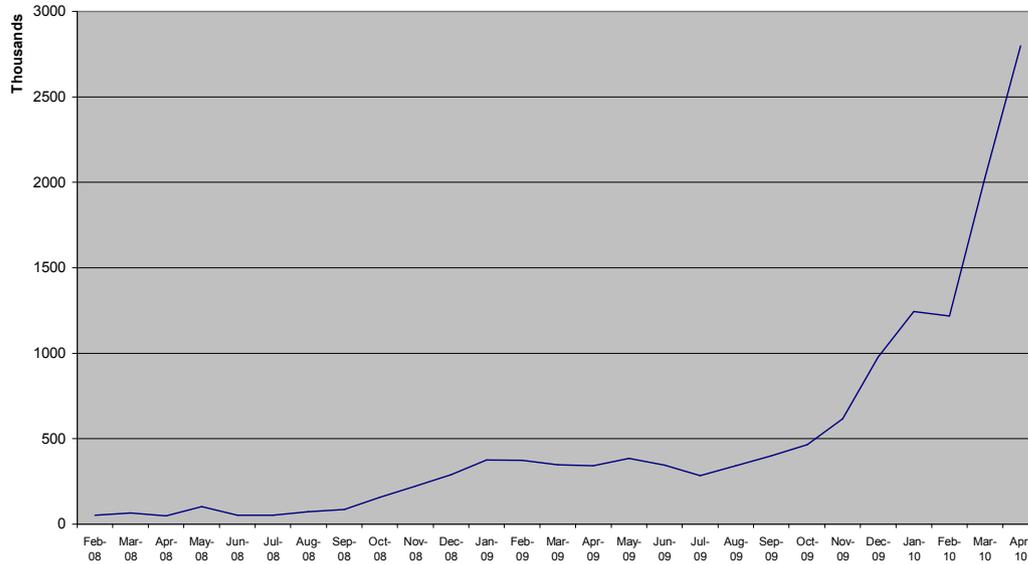


Map showing nearby bus stops

In addition to the iPhone and Android apps, there are also a mobile friendly and WAP sites available for bus passengers who do not have smartphones but can access some level of internet based information.

Website hits, including iPhone and Android use, are consistently above 100,000 each day and the mobile friendly site is averaging over 5000 hits each day.

The graph below shows the significant recent increase in web hits, which can be largely explained by the launch of iPhone and Android apps, and follow up advertising.



Number of hits per month. This includes hits from smartphones

The City of Edinburgh Council intends to build on this success with a website refresh and the launch of a developer friendly Application Programming Interface (API). This will allow third parties to develop applications and present the real time information in any format that they want. There is a growing interest in this type of development work by knowledgeable and enthusiastic members of the public and allowing them access to the real time information through an API presents excellent value for money for the Council and will ensure that the information is made available to as many people as possible. The provision of an API will also allow the Council to control who accesses the information, ensuring that the information remains free, accurate and that no undue strain is placed upon the server capacity.

Smartphones offer another opportunity to make the real time information accessible to everyone with the progress they are making with audio functions. An example of this is Apple Vision available on the iPhone. More information can be found here <http://www.apple.com/accessibility/iphone/vision.html>. Although touch screen technology may not be immediately obvious as a useful function for visually impaired users, Apple have shown that they are taking significant steps forward in improving accessibility and other phone manufacturers are following. The Council will work with application developers at every opportunity in order to ensure that this opportunity to deliver our real time information to as many people as possible is embraced.

On-street signs

Another recent development is the installation of the double-faced signs at all available bus stops on Princes Street. These allow a greater number of bus users to view the information without causing an obstruction to passengers boarding or alighting the buses, and are proving popular at very busy city centre bus stops.

New, smaller signs more suited to routes with fewer buses are being installed during summer 2010 at 40 new locations throughout the city. Although these bus stops often serve fewer passengers than those on main bus routes, it is recognised that this is where the real time information can be most useful. Each new sign location has been prioritised following assessment for proximity to schools, universities, medical centres and local amenities.

Audio signs

The Council has recently installed a Bustracker sign with audio capability outside the Royal Blind School on Craigmillar Park. This sign and three others have formed the basis of a user trial coordinated by the Royal National Institute for the Blind.

Each sign can deliver an audio real time information message and can be triggered by using either a RNIB REACT fob or a Scottish Concessionary Travel Card.



A visually impaired user using his Concessionary Travel Card to trigger the audio announcement

The REACT fob can also be used to trigger direction finding information.

The Council now plans to extend the audio capability to as many signs as finances will allow.

System Success

The whole system operates effectively as a result of good partnership working between CEC, Lothian Buses and the system provider, Ineo. It will be possible to build upon this system in the future, as it has been designed as a platform open to all bus operators. Since 2009, Lothian Buses' entire fleet has been equipped for real time information, maximising provision.

Meanwhile, we continue to develop this service as opportunities arise. While the use of smart phones technology is set to increase, on-street signs will remain an important part of our wayside travel information strategy so that real time information is accessible to all.

The continued rollout of bustracker signs along routes with a lower volume of bus services will depend on future funding availability, but strategic locations have been identified.

Lothian Buses also fully appreciate the benefits of accessible vehicles and information. They now operate a fleet fully equipped with low floor vehicles and have invested in new vehicles with both wheelchair and pram/buggy spaces. Their latest achievement has been equipping their Airlink Service (city centre to airport) with on-board information screens that include automatic audio announcements.

What Edinburgh's Transport Users Say:

"I haven't left a review for an app yet however I felt compelled to do so for this one. What a great app, it's free, very simple and has saved me a lot of strife over the festive period waiting for buses [...].

I use this everyday now before I leave the house so the days of waiting 20mins at the bus stop are over. I get there 5 mins before knowing that the bus is on the way.

If you live in Edinburgh and use Lothian Buses then you should have this app for the iPhone."

6 Jan 10

"I've found this not only useful but accurate and fast. The way in which the app tracks your location as you move really helps when you are going somewhere new as you can see the stop nearest your chosen location on the map. I've ended up using buses more often."

19 Dec 09

".....for any iPhone user living or working in Edinburgh who uses Lothian Buses!

I've been using it for weeks now and the recent update just made it even better! Very accurate bus timings which you can look a bit of a geek while comparing this to the electronic display at the stand!

Thank you EdinBus!"

Dec 09

"This is a well designed and easily used app. The user interface is clear and easily read (even without my specs!). Setting up favourite stops using the map find is so easy and stop descriptions can be changed to suit your own needs and favourites can easily be re-ordered to suit (I have about 20). New users should try the app on-bus and revise your journey plan as you travel."

Anon

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