

Response to the Office of Rail Regulation's Consultation on Real-Time Travel Information

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Introduction

Prossimo Ventures Limited is a small, independent, application development consultancy specializing in mobile applications and user-experience design.

We have been following developments in railway real-time travel information with a view to developing applications in this area.

The Code Of Practice and associated license for Darwin is, even with the amendments outlined in the consultation, thoroughly commercially unattractive to us.

In the context of the ~£4bn public subsidy to the rail industry as a whole, there is a strong case that the data provided by Darwin should be a public good.

The current approach to licensing is not only over-protective, but also highly unimaginative; quite likely to the detriment of the rail industry as a whole. It is also at odds with open-data initiatives across government.

Response to Consultation Questions

Question 1: NRE's proposed changes

The current licensing approach for RTTI (The 'Code'), rather than encouraging micro-entrepreneurs and SMEs, is likely to discourage them:

Pricing The economics of paying for access to the data don't stack up in the context of low- or medium-volume mobile applications, or applications targeted at small proportions of the market (e.g. customers with disabilities).

Furthermore, rail customers have the (not unreasonable) expectation that access to information they need to make use of their tickets effectively (e.g. RTTI) is a service included in the ticket price.

In general in the market for mobile applications - and particularly on iOS rather than Android - there is a limited customer appetite to pay a small premium for applications offering good design, usability or unique and useful features.

Legal Legal advice is likely to be taken for any entity entering into this license agreement - this is not a straightforward agreement

Using '**Push**' notifications is the only solution for Apple iOS (e.g. iPhone) applications that wish to run in the background and continue to receive real-time updates¹. Whilst it is necessary for the licensee to provide a web-service that sits between Darwin and the client application to implement push notifications via Apple's servers, without use of the Darwin push interface, this will result in the large volume 'polling' requests; it is a technically inelegant solution that scales badly with load. This should be of particular concern for TISL - who are provisioning the system.

The use of push - type services makes sense from a battery conservation point of view on all mobile devices.

The indemnity insurance required for use of 'push' services is likely to be beyond the means of SMEs, and requirement to demonstrate appropriate insurance cover is onerous for small businesses.

Uncertainty in terms of time and outcome of making an application for a license. The development time-scale for mobile apps is typically measured in months.

Other opportunities: In general, SMEs in this sector are technology rather than business focused. Other business opportunities exist with less administrative baggage and jumping-through of hoops required here.

¹ This is a requirement of Apple's iOS App Store Review Guidelines - <https://developer.apple.com/appstore/guidelines.html>

Question 3a: Medium-term sustainability of Existing apps in market-place

As stated in the consultation, the available apps making use of Darwin data are mostly restricted to journey planning and real-time information tasks - as I outline below in my response to Question 4a, there are many more possibilities, many of which are only really viable with an open-data model.

In terms of the the existing apps, it is hard to imagine that any is particularly profitable. On the other hand, the cost of entry for a independent developer can be low (perhaps as low as £30k vs £100k+ for a larger player producing a thoroughly tested and robust product).

As ATOC is offering its app for iOS for free (ad-supported), yet access to the Darwin as stated in the consultation is £1.00-£1.50 for competing applications, this would seem to rule out any competition at the bottom end of the market.

The £4.99 price point for the premium (e.g. ad-free) ATOC app is likely to be seen as poor value for money by many iOS users, but at least provides scope for competitors to price apps beneath this.

I would therefore conclude that there is little scope for further applications in this category, except on emerging mobile platforms. Furthermore, we can expect sales in this category overall to reduce as smart-phone penetration plateaus.

Question 3b: Likelihood of more applications/functionality with open data model.

Please refer to my response to section 4a.

Question 4a: Likely changes to market from open-data approach

I predict that adopting an open-data approach would result in the following changes to the market:

Timetable and live-service applications: The market for these applications is already mature for iOS and Android. New entrants will compete on design and usability (currently plenty of scope for this), feature differentiation or price.

The current price point of £4.99 for the premium (ad-free) premium ATOC iOS application is probably too high; it is likely that further competition would reduce this to £0.99 or £1.99 at most.

Localized multi-modal travel planning applications: There is potential for integration of Darwin data into local travel planning applications allowing planning of multi-modal journeys. It seems likely that most local travel PTEs/councils/transport operators will attempt to provide applications of this kind over the next few years. Paying for access to data from Darwin is likely to be untenable considering the limited potential (local) user-base of these applications, and public expectations for them to be free.

Integration into mapping services (e.g. Google Maps & Transit, Bing). Mobile mapping applications are becoming ubiquitous and there is already limited support for UK rail travel planning build into some of them. The ability to obtain comprehensive travel information, and real-time service status is a likely development, and in time, the need for stand-alone applications will diminish

Mash-up applications that make use data from Darwin along side other data-sets. There is potential for a very large number of niche applications that are genuinely useful to customers. Mash-ups are typically built quickly and by lone developers, often non-commercially. It is highly unlikely any of these applications will exist with the proposed licensing approach

Appearance of apps targeted at niche markets such as assistance applications for the disabled or elderly customers. These might be developed non-commercially by the 3rd sector; onerous licensing conditions and cost would be a great disincentive.

Emergence of 3rd-party data aggregators: There are potential business models for 3rd parties to aggregate data from Darwin, relieving ATOC of the burden.

Question 4b: Desirability of open-data approach

The Traveling Public

Benefits:

- Greater choice in ways of obtaining travel information and service status
- Higher likelihood of this coming through built-in functionality in their mobile devices and directly from internet search engines
- Better user-experience
- Further reduction in cost of RTTI applications
- Travel information services more likely to be accessible to disabled and elderly customers

Disadvantages:

- None

To the wider rail industry

Benefits:

- Better communication with customers - particularly of service disruptions - and resulting increased customer satisfaction
- Emergence of low-cost approaches for passenger and staff information systems making use of open data rather than proprietary interfaces
- Increased use of Commercial off-the-shelf systems (COTS); reduction in costs
- Increased perception of transparency and accountability

Disadvantages:

- Increased TOC contributions to ATOC as ATOC earns less money from sale of travel information services to passengers.

To ATOC

Benefits:

- Potential to use off-the-shelf solutions rather than developing in-house
- Increased perception of transparency and accountability

Disadvantages:

- Technical challenges of hosting data and preventing abuse of open services (e.g. Denial of Service)
- Ongoing cost of hosting open data services

- Loss of sales from existing applications (or other means of monetising RTTI data) as robust competition emerges.
- Loss of customer relationships as customers go elsewhere for travel information

To SMEs/Micro-entrepreneurs and the wider digital economy

Benefits:

- Opening of the RTTI, and probably as a side effect the wider rail-information and ticketing market for micro-entrepreneurs and SMEs