

Date: 21 January 2016

Item: Wayfindr.org Limited

This paper will be considered in public

1 Summary

- 1.1 This paper describes trials for an open technology standard, based on a system that uses audio instructions to assist visually impaired people to move around stations and proposes that TfL become a member of, and nominate a director to, the board of Wayfindr.org Limited.

2 Recommendation

- 2.1 **The Committee is asked to note the paper and recommend that the Board:**
- (a) **approves TfL becoming a member of, and nominating a director to, the board Wayfindr.org Limited, a company limited by guarantee;**
 - (b) **authorises the TfL Officers and the Subsidiaries (as described in paragraph 2.2 below) to settle the basis of TfL's membership of Wayfindr.org Limited; and**
 - (c) **authorises TfL Officers to do all such other things as they consider necessary or desirable to facilitate TfL's membership or such other involvement with Wayfindr.org Limited as they deem appropriate.**
- 2.2 **The following Officers and Subsidiaries shall have delegated authority:**
- (a) **TfL Officers: the Commissioner, Managing Director Finance, Managing Director Rail and Underground and General Counsel.**
 - (b) **Subsidiaries: Subsidiaries of TfL including Transport Trading Limited (TTL) and any other subsidiary (whether existing presently or to be formed) of TTL and the directors of such authorised company shall be authorised to act for and on behalf of that company.**

3 Background

- 3.1 In February 2015, London Underground Limited's (LUL)'s Technology & Innovation team led a proof of concept trial at Pimlico station to help develop a standard that would enable visually impaired people to navigate underground with the aid of audio instructions. The trial was funded by LUL and received significant media coverage. It proved that it is possible to create a standard that will significantly improve the experience of visually impaired users of the Underground. The trial focused on user needs and experience, using volunteers from a range of organisations representing visually impaired people. The scope

did not investigate how the required infrastructure could be operated and maintained. The standard is branded as “wayfindr”.

- 3.2 In April 2015, the Technology & Innovation team successfully applied for competition grant funding from the Department for Transport in order to investigate application of the wayfindr standard across a wider transport environment. The project was completed with support from Surface Transport, enabling the trial to be extended to include a bus stop outside Pimlico station. The trial was considered successful. User feedback indicated that addressing the challenge of navigating the Underground was a higher priority than navigating at surface level for many visually impaired users.
- 3.3 The trial has now moved into the next phase, which is being carried out in the larger and more complex environment of Euston Underground station. The aim of this phase is to further develop the wayfindr standard along with an Operational Maintenance Concept and maintenance plan, to ensure the system can remain fit for purpose once it is installed. The trial will also be used to understand the full life cycle costs of implementing the wayfindr standard and whether it can be scaled up to cover the LUL estate. This phase of the trial is due to end in January 2016, but it is recognised that the test system will require significant further research and development work before a full understanding of customer-facing deployment can take place.
- 3.4 The wayfindr standard will be an open technology standard. It has been conceived and pioneered by the youth forum of the Royal London Society for Blind People (RLSB) with the support of the digital product studio Ustwo, to assist visually impaired people to move about their environment using audio based navigation. It will contain a significant component of learning based on the LUL trials at Pimlico and Euston.
- 3.5 An open technology standard is a standard which is publicly available and has specific rights associated with its usage. By using an open standard, TfL is not commercially restricted in which supplier could implement the standard and there will be no issues relating to commercial exploitation of the technology by the owner. It is therefore in TfL’s interest that wayfindr remains an open technology standard.
- 3.6 Wayfindr.org Limited is a company limited by guarantee set up by the RLSB for the development and ongoing maintenance of the wayfindr standard. RLSB intends that Wayfindr.org Limited will be a not for profit organisation and will seek its own independent charitable status in the future as opposed to relying on RLSB’s charitable status as it does currently.
- 3.7 The wayfindr standard will work by standardising the instructions (detail, length, language used), interactions and technical guidelines for any developer to build a compliant system. This open standard approach is designed to stimulate the developer market and offer many different, but integrable solutions with a common infrastructure. The solution trialled with LUL was based on installing Bluetooth low energy beacons (BLE Beacons) within the LUL environment, which transmit a signature to an application on the user’s smart phone. Once the user is within range of the BLE Beacon the application on the smart phone then decodes, applies logic and plays the audio command to the user. The BLE Beacons are

strategically placed within the station to ensure that the user is able to follow the instructions and successfully navigate their way from the platform to an exit or from an entrance to the platform. The wayfindr standard does not prescribe the use of the application designed for the LUL trails nor the use of BLE Beacons, but will recommend how different technologies can be configured and optimised for the application environment.

- 3.8 During the trial, TfL was approached about becoming a member of Wayfindr.org Limited due to the status of TfL and the assistance that TfL, through LUL, had provided in developing and testing the wayfindr standard. Without TfL's involvement, Wayfindr.org Limited would not have received the same levels of attention and interest. Furthermore, Wayfindr.org Limited has expressed a desire to incorporate instruction sets and guidelines into the wayfindr standard to cover how an infrastructure owner would operate, maintain and update a system, based on knowledge and experience that could be provided by TfL.
- 3.9 Wayfindr.org Limited has confirmed that it is open to TfL having the right to nominate a director to the board of Wayfindr.org Limited.
- 3.10 TfL is interested in being a member of Wayfindr.org Limited and nominating a director to the board, to build upon existing work and to ensure that the wayfindr standard remains an open standard available for all rather than being open to commercial exploitation. As a member of the Wayfindr.org Limited board, TfL will also have some direct influence of the development of the wayfindr standard.

4 Financial Implications

- 4.1 There are no financial implications at this stage, as TfL will not be investing or providing any funding to Wayfindr.org Limited. In addition, as Wayfindr.org Limited is a company limited by guarantee, TfL's liability in the event that the company is wound up would be limited to the amount set out in the articles of association. This is currently set at one pound and could only be changed with the agreement of all the members.
- 4.2 Wayfindr.org Limited is a company limited by guarantee to enable it to seek its own charitable status in the future.
- 4.3 As part of TfL's membership of Wayfindr.org Limited, TfL will seek to ensure that any staff time spent on Wayfindr.org Limited core activities is reimbursed, where funds are available, so that TfL remains cost neutral.

List of Appendices to this report:

None

List of Background Papers:

None

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