

TRANSPORT FOR LONDON

BOARD

**SUBJECT: LONDON UNDERGROUND'S OPERATIONAL VISION –
TECHNOLOGY ENABLES CHANGE**

DATE: 2 NOVEMBER 2011

1 PURPOSE AND DECISION REQUIRED

- 1.1 The purpose of this paper is to outline to the Board London Underground's (LU) operational vision. The vision explains how LU could align the operational business, both people and structure, with technological changes to ensure high levels of customer service, a reliable train service and continued efficiency.
- 1.2 This paper is emerging thinking but it is appropriate to share this with the Board at this early stage.
- 1.3 The Board is asked to note this paper.

2 BACKGROUND

- 2.1 New technology, increasing customer expectations and current economic realities mean that LU must adapt and embrace change. This change will come about through a variety of ways. The programme of upgrades is bringing new technology, increasing automation and continual transformation to the way the railway is operated. Customers are welcoming new and emerging technologies, especially in the way they plan their journeys, receive information and pay for travel.
- 2.2 Technology enables change, and LU's operational vision would ensure that the benefits of these changes are realised for customers, staff and the organisation. By doing this, LU seeks to create a workforce that is increasingly proactive and visible to customers.
- 2.3 These changes have consequences not only for the way customers view LU, but also for the way in which staff perceive the organisation. Staffing structures will need to be reviewed with the introduction of new technology.

3 TRAINS

- 3.1 LU is now running three out of its eleven lines with automatic signalling systems. By 2018, when the Northern line and Sub Surface lines (Circle, District, Hammersmith & City and Metropolitan lines) all have their new signalling commissioned, some 70 per cent of the network will be automatic. The Sub Surface upgrade provides an opportunity in itself – enabling the operation of four lines as a single integrated railway. This will allow the potential for more integrated operations across these lines, creating greater flexibility with

both rolling stock and train staff deployment. This will not only bring performance benefits but also operating efficiencies.

- 3.2 Given the technology available now, it is very unlikely that, after the procurement of the trains for the Sub Surface Lines, LU will ever again buy a fleet of passenger trains with conventional drivers' cabs. This means that the new generation of tube train being developed for the Bakerloo, Piccadilly and Central lines, to be introduced in the 2020s, could dramatically change the train staff operating model.
- 3.3 For train staff who currently drive a train, LU will make a commitment to them that they can continue to do so for the rest of their career. In return, train drivers will need to show greater levels of flexibility to support long term service reliability improvement.
- 3.4 The work is still very much at an early stage but the next generation of employees supporting the train service could be much more like the train captains on the Docklands Light Railway, rather than those seen traditionally on LU. There is no doubt the role will change considerably, but it is certain that any staff supporting the train service of the future will be mobile, flexible, and customer focused.

4 STATIONS

- 4.1 Some concerns have already been expressed that a future world with fewer ticket offices must mean reduced staffing at stations more generally. That is absolutely not the case; the principle of having staff on LU stations throughout the operating day will remain sacrosanct. However, technology will continue to change the way LU operates its stations. These changes are about new ticketing technology and the way in which customers receive travel information and plan their journeys. However, these changes will not mean that station staff are not needed, but the way in which they help customers will be different. Staff will continue to play a key role in helping customers to navigate quickly and safely around the system.
- 4.2 Oyster has changed the way customers pay for travel, radically reducing demand for ticket selling. TfL is now working on the next generation of ticketing technology, which will allow customers with a contactless bank card to pay for travel simply by waving their bank card over the gateline to get the correct fare. There will be no need to buy a card from TfL or to top it up, further reducing demand for ticket selling. For those customers who do not have a contactless bank card, the Oyster card will continue to exist. Ticket machines on LU are also being enhanced to carry out a wider range of customer service functions that have typically been done at ticket offices, including selling new cards and making adjustments to journeys.
- 4.3 Demand for ticket selling via ticket offices is continuing to reduce and will see sharper reductions once contactless bank cards come into use. Nevertheless, the need for staff at stations will remain. Staff will need to be increasingly knowledgeable and proactive, visible to customers in the ticket hall area, not out of sight in a ticket office. There will still need to be ticket offices at key gateway and other high profile stations. Staff deployment will continue to be dependent on customer demand levels, acknowledging the varying characteristics of demand at different stations.

- 4.4 LU is committed to having staff on stations during the traffic day and these changes could create multi-skilled staff that are flexible, visible and more focused on helping customers.

5 SERVICE CONTROL

- 5.1 There is work underway to look at the possibility of co-locating LU's Network Operations Centre with the Surface Control Centre in Palestra. This new Command and Control centre would ensure that operational incidents are dealt with faster, leading to less service and customer impact.
- 5.2 Individual line control centres will continue at separate locations with an important line focus. The exception to this is the new Sub Surface Control Centre where Circle, District, Hammersmith & City and Metropolitan lines will operate from one new location.

6 MAINTENANCE

- 6.1 Technology is a key driver for much of the change that is planned within LU's maintenance organisation. The way trains are maintained has historically been time-based, but going forward this will be service or distance based; the maintenance cycle for trains will be based on distance run or service hours and not time since last service.
- 6.2 As LU switches to computer-controlled signalling, the ability to predict and prevent degradation and failures remotely will dramatically increase. Similarly with track, a wide-scale adoption of Automatic Track Monitoring Systems means that track condition can be identified more efficiently without many of the manual inspections currently required. All of these technological changes will mean different skills being required by staff and allowing them to work differently.

7 EMPLOYEE ENGAGEMENT

- 7.1 The operational vision outlined above could mean that there will be changes to LU staff numbers in the future. However, employees would be better trained, with higher skills and more ability to continue to develop "on the job". The majority of station changes could be introduced before embarking on a programme of trains transformation as automation technologies are introduced.
- 7.2 Integral to LU's approach to successfully developing this operational vision is the need for continued and direct employee engagement. Key to this is local relationships with staff; building a direct relationship between local managers and their staff to increase trust while recognising the importance of consultation with our Trade Unions. LU must continue to manage openly and honestly.
- 7.3 From a wider perspective, LU will continue the programme of direct communication with employees. A major employee engagement initiative will be rolling out to all employees from 8 November 2011. These events provide an opportunity to share with staff the changes in technology that are coming and what this means for them. The events will explain how continual change is now part of the fabric of the organisation, while also highlighting that people are fundamental to our operational vision. The message will be that very many

people could have security of employment by embracing new technologies, new ways of working, and being more flexible in what they do.

8 SUMMARY

- 8.1 This operational vision shows how the LU operational model could evolve and embrace technology to meet the challenges of the next decade. The vision is about improving standards of customer service by linking proactive and knowledgeable staff with new technology. This vision aims to deliver a credible future, recognising the benefits of technology and the need to continue to provide direct, face-to-face service levels for customers.

9 RECOMMENDATION

- 9.1 The Board is asked to NOTE this paper.

10 CONTACT

- 10.1 Contact: Mike Brown, Managing Director, London Rail and London Underground
Number: 020 7027 8499
Email: MikeBrown@tfl.gov.uk