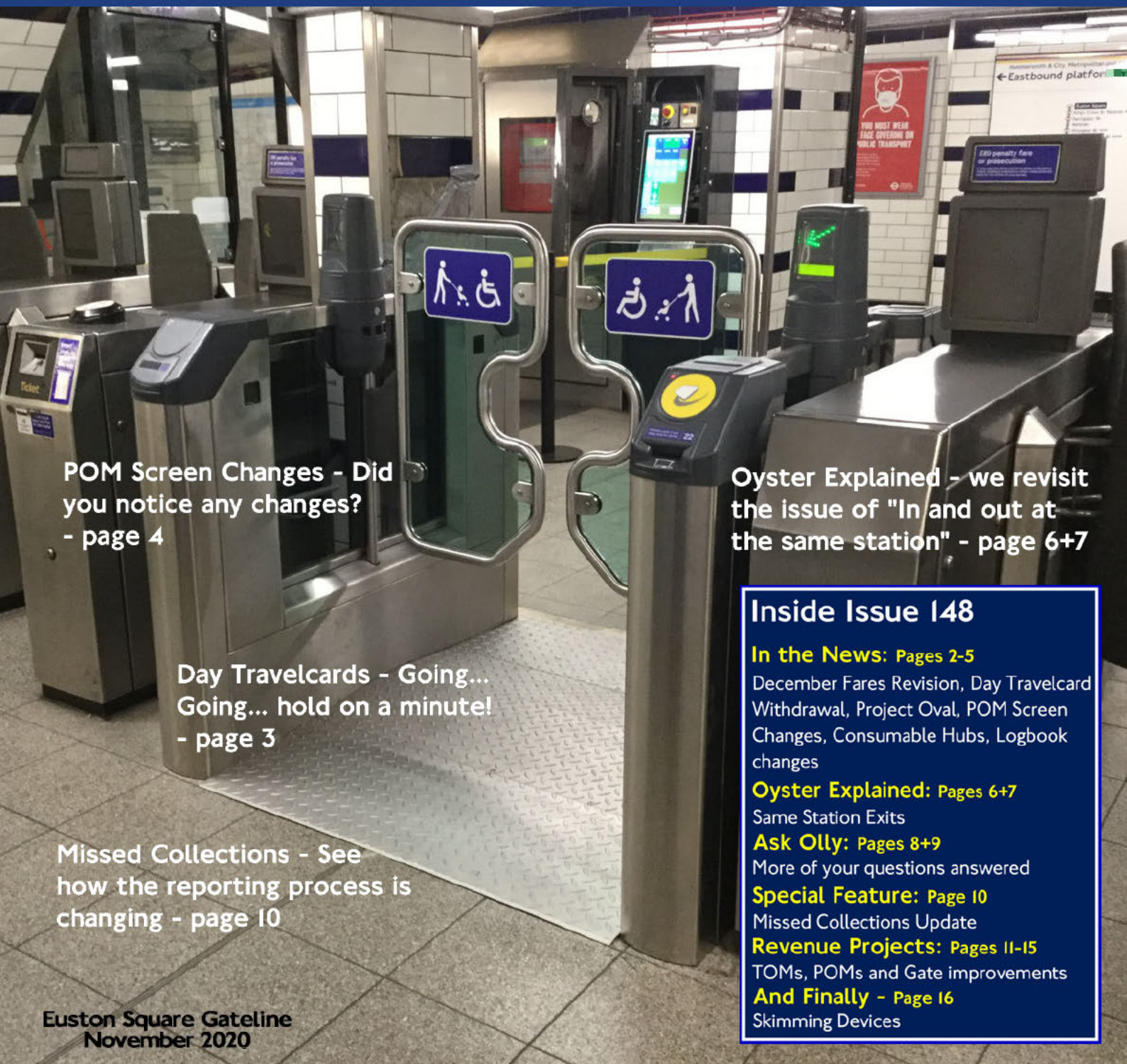


Issue 148 - November 2023

Ticketing & Revenue Update



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November 2020

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Skimming Devices

Apologies for the late appearance of this edition of TRU. Unfortunately, as frequently seems to happen, our targets for publication are severely hampered by a large number of late changes and delays which have resulted in frequent re-writes of a lot of the text in order to give the most accurate and up to date information.

It seems that we are not alone with the late running, as for the first time in memory the planned December Fares Revision has been delayed by 7 days in order that the planned changes can be implemented. As a result, the additional December Fares Revision will now take place on Sunday 10 December, and not on 03 December as we had previously indicated.



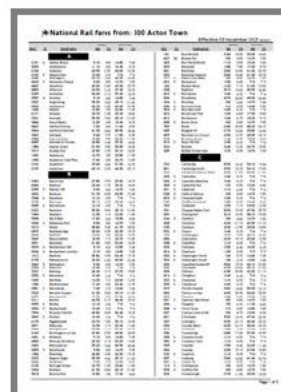
However, it is understood that NR TVMs will be updated with new fares from 03 December as originally planned. This means that there will be a difference between LU and NR devices for the week commencing 03 December.

On 10 December, there will be no changes to fares that are set directly by TfL, but some wholly National Rail (NR) fares to stations outside the current zonal area, which are set by the Train Operating Companies (TOCs) will change so that they align with the new PAYG charges being introduced for contactless payment users (further details can be found in our update on *Project Oval* on Page 3).

As a result of these changes, some fares offered on our POMs for wholly NR journeys will change and there will also be changes to through fares for journeys from LU stations to NR destinations outside of the zones.

The TOCs are also withdrawing several Super Off-Peak fares and as a result of this, these will be withdrawn from the small number of LU stations that currently offer these on their POMs for wholly NR journeys.

The other change being implemented on NR services, is that to bring Single fares in line with those for contactless payment users, some journeys will have evening peak restrictions on the use of Off-Peak tickets. Unfortunately, our POMs do not have the capability of switching to sell a peak ticket after 09.30, so they will sell an Off-Peak ticket at times that they are technically not valid on NR services. At LU stations where our gateline controls access to NR services, the gates will continue to accept these Off-Peak tickets. There is no change to acceptance of Off-Peak tickets on LU services.



The changes mean that we will be issuing a new set of NR Staff Fares Lists, which will be available by [clicking here](#), from Friday 08 December. Since these had already been collated before the decision had been taken to delay the fares revision for seven days, the new lists will appear with an effective date of 03 December, even though they will not actually be effective until 10 December. Since staff will not be able to access the new prices until a couple of days before the fares changes take effect, this should not cause too much confusion.

As in previous years, there will not be the traditional main fares revision at the start of January next year. The main fares revision will instead take place at the start of March, as it has done for the last couple of years. This is currently expected to take place on Sunday 03 March and will include the main changes to fares set by TfL and those that are set jointly with the other operators.

The scale and scope of these changes is not yet known but will in addition to any Retail price Increase (RPI) increase, will also include an additional charge being applied to Day Travelcard prices, as outlined in the article on Page 3. Further information will be published in the TRU in 2024 once the actual increases and new prices are available.

DAY TRAVELCARD WITHDRAWAL

One of the big news stories since the last edition of TRU, was the last-minute reprieve for the Day Travelcard.

It had previously been announced that TfL were proposing to withdraw the Day Travelcard from January 2024 and the preparatory work to facilitate this were already well advanced before the announcement of a reprieve.

The Day Travelcard will remain thanks to a renegotiation of the Travelcard agreement between TfL and the TOCs, which will see TfL receiving a greater proportion of future revenues.



Previously TfL had been concerned that it was receiving less revenue from sales of Day Travelcards for journeys from stations outside of London, than it would have received if the customer had travelled into London and then used PAYG for the journeys they made whilst in the capital. This was based on TfL only receiving a set amount for each sale, rather than the actual value of travel made.

As a result of the renegotiation of the Travelcard agreement, it has been announced that in addition to the usual increases to the cost of Day Travelcards implemented as part of the next main fares revision in March 2024, a further 3% increase is due to be applied to Day Travelcard prices.

Further information on the actual prices that will apply from March will be published ahead of the changes on 03 March 2024.

PROJECT OVAL

Further to the last update on Project Oval in TRU147, it is now clear that implementation will not be on 03 December, since as outlined on Page 2, the final fares revision that facilitates the final fares changes needed, has been deferred by seven days to Sunday 10 December.

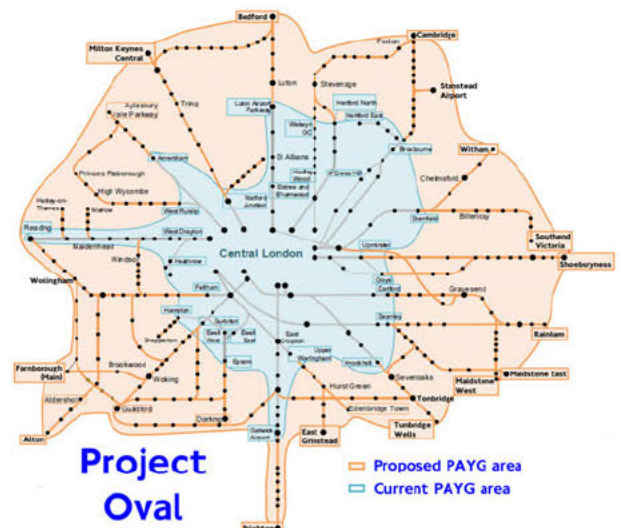
At the time of publication, the official implementation date for the expansion of contactless payments to the first batch of 53 NR stations in the southeast is still yet to be formally announced, but final changes to fares will now be made as part of the fares revision on Sunday 10 December. However, just as we were about to press the print button, it was announced by the DfT that the implementation date had been further delayed and would no longer be in December 2023 and is now likely to be in Spring 2024.

Daily and weekly caps will apply for travel to / from these new locations, but prices will not be publicly advertised in the same way as caps within the zonal area, as the fares structures of the various TOCs are not necessarily the same.

At a number of the new locations, easements will be applied to allow Off Peak journeys into London to start before the normal 09.30 start time. This allows customers to travel on the nearest service to the normal off-peak start time.

However, in all cases customers would not arrive in London until well after 09.30, so there will be little impact to LU of this change.

The full list of the 53 stations scheduled to be included in phase I of Project Oval were published in TRU146.



POM SCREEN CHANGES

One part of the December Fares Revision that has already been delivered by Cubic, relates to a number of improvements to POM screens.

This latest round of POM screen changes follows on from the changes that were made as part of the September fares Revision, which we outlined in our last edition (TRU 147) and these latest changes were implemented as part of the base data update on Sunday 22 October. This was completed early to spread the workload of the Cubic base data team.

There were four changes which you may or may not have already noticed.

Bank card payments 1 – A change was made to the payment screen displayed to customers in preparation for the planned upgrade of the Chip & PIN unit (PED) the previous message which said, “Insert bank card” has now been changed to “Pay with bank card” ➔.

Charity Donation confirmation screen 2 – as we outlined in TRU147, the confirmation screen displayed when a customer donated the proceeds from their Oyster card on a MFM or TVM that was not able to make a cash refund, was missing some text.

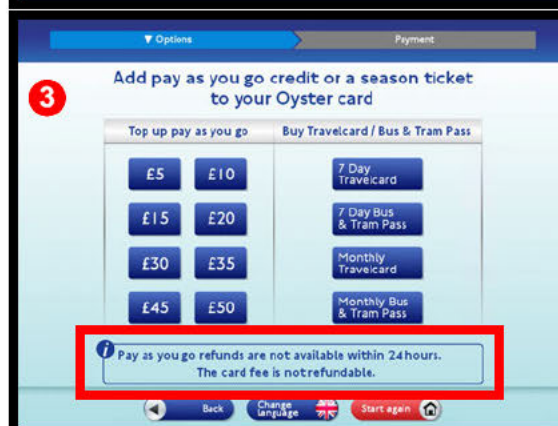
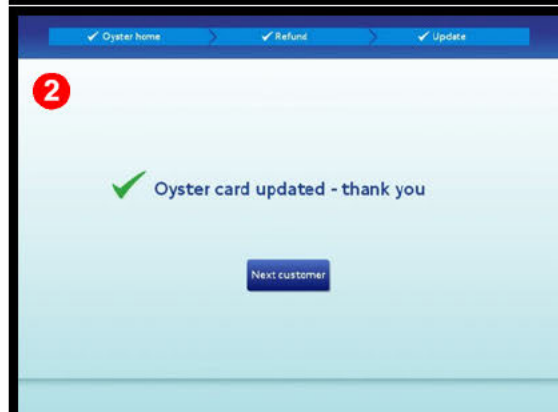
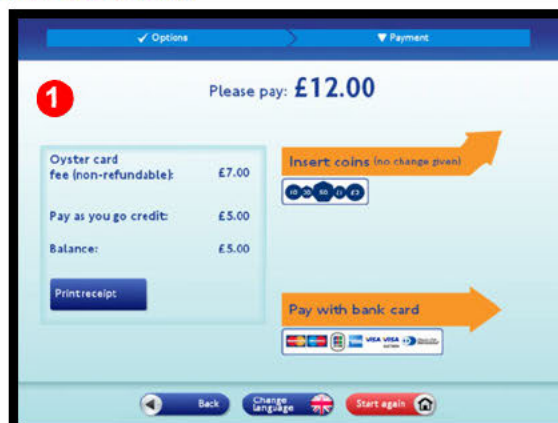
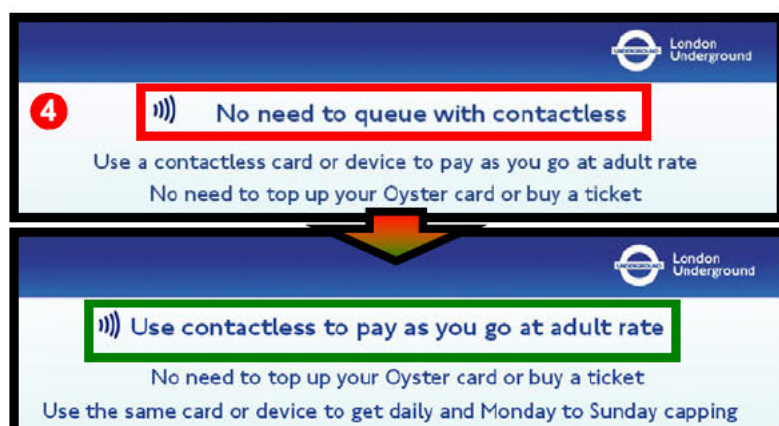
This has now been corrected to display a confirmation message that the card has been updated (effectively cancelled) ➔.

Card fee 3 – following feedback from staff at Victoria and a couple of other locations the text relating to the Oyster card fee has been clarified.

On the payment screen when a new Oyster card is purchased some additional text has been added under the card fee to indicate that it is not refundable.

Oyster card fee (non-refundable):	3	£7.00
Pay as you go credit:		£5.00
Balance:		£5.00

In addition, the message at the bottom of the screen where the top-up amount is selected has also been simplified to state that the card fee is not refundable. It previously stated, “not refundable on surrender”. ➔



Home screen message 4 – finally, the message on the “home screen” has been subtly changed to remove the reference to avoid the need to queue.

➔ The focus is now on the simplicity of using contactless payment and the benefits of capping, instead of topping up their Oyster card or buying a more expensive ticket.

CONSUMABLE HUBS

The process of creating a series of “Hubs” for ticketing consumable supplies across the network is now nearing completion. These have seen bulk stocks of items moved from individual stations to key locations which are then used to better supply the “satellite” locations when they need items.

To date, 30 hubs have been set up and are now operational, with a further 4 at the locations listed below, due to be completed in the next few weeks:



BOND STREET LIVERPOOL STREET NOTTING HILL GATE WEMBLEY PARK

The process of pooling stocks has reduced the need to order stocks of certain items and allowed the redistribution of excess stocks from areas with low levels of usage to other stations using much higher volumes. Ultimately, this will lead to an overall reduction in costs and less waste.

As an example, over the last 7 HUBs that were completed over the summer, over 100,00 items were consolidated. This comprised of:

Value / Type	£2	£1	50p	20p	10p	V&C bags	V&C Sacks	Total
Items consolidated	17,886	10,012	13,975	8,716	13,039	45,851	7,651	117,110

LOGBOOK CHANGES

On Thursday 26 October, new options were added to the station logbook to make it easier to record ticketing and revenue related entries and events. The update also provided the opportunity to remove a few outdated and redundant options.

Items relating to ticketing and revenue activities and functions now have the prefix “T&R” in front of the activity. There is also an option “T&R Stock Order” which can be used to record any orders submitted to reduce the risk of duplicate items and over-orders.

Following a recent overhaul of our ROLT / ROLMP and Inability to Pay Fare procedures, these items have now been added to the “Station Checks” section.

A detailed email has been sent to all station grades listing the enhanced list of features. Further notifications will be sent providing more information on the requirements for recording Security collection activities.

Please note – the changes to the Station logbook do not supersede procedures covering the recording of items within the Secure Suite logbook.

STRONG CUSTOMER AUTHENTICATION

On Thursday 23 November, TfL updated the Oyster and Contactless App to comply with UK bankcard issuers improved fraud protection safeguards known as the Strong Customer Authentication (SCA).

Any customers highlighting issues with their TfL Oyster and Contactless app and are unable to purchase Oyster products or use their new bankcard, must be advised that they will need to download the latest version of the app from the Apple or Google Play store as earlier versions will no longer work.



OYSTER EXPLAINED

This month's Oyster Explained feature repeats some of the information we previously covered way back in TRU95 in – October 2016 and is in response to an Ask Olly letter on Page 8.

IN AND OUT AT THE SAME STATION

Following the installation of a new WAG at West Harrow in June 2016, we received a number of emails from staff and managers on the Harrow on the Hill area, relating to the problems that had subsequently arisen with customers using the station, due largely to its fairly unique layout and position.

For those not familiar with this particular station, West Harrow is unusual in having two platforms each with its own entrance and no direct link between the platforms other than via the street.

At most other localities this wouldn't be too much of an issue, but as the station lies between two junctions (Harrow on the Hill and Rayners Lane), it rather uniquely has the potential for,

- customers intending to travel to Watford or Amersham who have boarded the wrong train at Harrow or stations to the south, to arrive on the westbound platform,
- and customers from the Uxbridge direction who intended to use the Piccadilly line and board the wrong train or fail to change at Rayners Lane, to arrive on the eastbound platform.



In each of these scenarios, the customer concerned would need to cross to the other platform to retrace their steps back to either Harrow on the Hill or Rayners Lane to board the correct service. The absence of both a footbridge and subway mean that they actually have to exit the station and then re-enter on the opposite side of the station.



Added to these, there is also a risk that customers who are unfamiliar with the station and wishing to travel towards either Baker Street or Uxbridge may simply go to the wrong platform.

As an ungated station, this didn't cause any particular issues as customers could move freely between the two sides of the station, but subsequent gating, greater control of access to / from the platforms and the uptake of Oyster has created its own issues here.

We now examine the two main problems that arise through the use of Oyster PAYG.

SAME STATION EXIT TIMINGS

This scenario is not dissimilar to what sometimes happens at other stations, where customers enter through the gates and realise they have forgotten something, exit and then try to enter for a second time.

At gated stations, gate software is designed to prevent a second entry on the same card or ticket, identifying this as a 'Zig Zag' (In - Out - In) and displays a 'Seek assistance' message.

Season ticket holders need to simply be let in, but PAYG users will incur a charge for a 'same station exit' which will be either the maximum or minimum fare, depending upon the length of time between their entry and exit.

Where a PVal is involved, the software operates slightly differently, as the PVal has to make allowances for customers validating more than once and has to operate in both entry and exit modes.



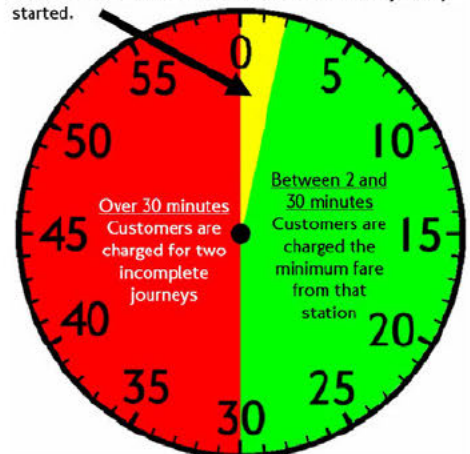
OYSTER EXPLAINED

The diagram to the right shows that if a customer enters and then immediately exits, they will incur a 'same station exit' and a maximum fare. However, if they realise their error and subsequently touch-in within a 45-minute period, the original 'same station exit' will be removed and the customer will be able to start their journey without further penalty.

This facility also applies at times of disruption when customers decide to exit the station and use an alternative station nearby and avoids the need for staff to have to intervene to void PAYG transactions.

In the West Harrow wrong platform scenario, the re-entry after the same station exit should avoid the customer from being overcharged, but problems may occur if they touch-in, then fail to touch-out before attempting to touch-in on the right platform.

Under 2 minutes - Customers are charged a maximum PAYG fare. If, having touched in and out within 2 minutes the customer re-enters another station within 45 minutes, the fare will be refunded and a new journey started.



THE WRONG PLATFORM

This is a slightly more difficult problem to resolve at the station. In cases where a customer has boarded the wrong train and realising their error alight at West Harrow, they will already have an open PAYG journey. Consequently, when they touch-out to cross to the other platform, their journey will be closed and they will be charged the PAYG fare to West Harrow from the station they started their journey at. If they then touch-in on the opposite side of the station, a second journey will be started, so the customer will then potentially be charged another fare from West Harrow to the station that they intended to travel to.

If the customer realises that by exiting their journey has been closed before touching-in again, it would be possible for a member of staff to void the last PAYG event (their exit) on the TOM and then by allowing the customer through the gate via a 'One Shot Release' or using their Staff Oyster card, allow the customer to resume their original journey and pay the correct PAYG charge when exiting at their destination.

The problems outlined affect as many as 20-40 customers per day and as a result we have an 'Out of Station Interchange' (OSI) facility between the two parts of the station.

OUT OF STATION INTERCHANGES

OSIs allow customers to interchange between services, where it is necessary to pass through a gateline or leave a station and for their journey to be treated as one continuous journey. Usually this applies to locations where there is an interchange outside of the gateline with NR services, but there are a few examples where interchange is permitted between nearby stations such as Hammersmith (C&H) / Hammersmith (D&P) and Paddington / Lancaster Gate.

Occasionally, there is a need to set up interchanges between different gatelines within a station, but where lower-level interchanges exist between lines these are generally not practical.

Although the OSI facility works well for customers that use it to interchange, there is a very big downside, particularly at stations which are a major traffic objective. The root cause of this is that when applying the OSI functionality, the gate cannot distinguish between customers who are genuinely interchanging and those who may have exited to go somewhere for a very short period and then touched-in again to make another journey. This can result in customers who have made two journeys only being charged for one, but more worryingly if the two journeys are a return trip back to the station they started at, this will result in the customer incurring two separate maximum fares because of the 'Same station exit' functionality we covered earlier. Fortunately, at West Harrow there are likely to be very few customers who inadvertently have separate journeys to and from the station joined together in this way.

From: [REDACTED]
Sent: 24 October 2023 10:18
To: Ask Olly
Subject: Same Station Exit

Hi Olly,

I'm trying to find out more information about same station exit timings and appropriate charges.

I am particularly interested to know what happens when a customer has changed their mind about travelling altogether. I would appreciate any literature or guidance.

Kind regards,

[REDACTED]
[REDACTED]
[REDACTED]



Hi [REDACTED]

I think the answer to your query lies within an article that originally appeared back in TRU95.

As it has been quite a while since we did so, we have decided to re-run this article in this edition of TRU in our Oyster Explained article on Pages 6 & 7.

Hope this provides the information you are after.

Regards

Olly Oyster



From: [REDACTED]
Sent: 25 October 2023 15:41
To: Ask Olly
Subject: Annual Season

Hi Olly,

I had a customer who had an annual Point to Point NR season ticket, and he wanted a discount to be added to his Oyster card. I was not sure if I could, and I could not find anything in the T&R books that was specific to Point to Point annual tickets being added to Oyster.

He had bought it because on the TfL website it did state that the discount could be added to an oyster card. As a result of that I did add it.

However, I need clarification for the future.

Regards

[REDACTED]
[REDACTED]

Hi [REDACTED]

NR Point to Point season tickets can't be issued on Oyster cards, but it sounds as if the customer may have wanted the NR Railcard discount added to their Oyster card so they could take advantage of discounted PAYG travel for journeys that are not covered by their season ticket.

Customers that have an Annual Goldcard, are entitled to have the NR Railcard discount added to their Oyster card. The season ticket does not have to cover travel on LU or within the London area for the customer to be entitled to the Goldcard discount.

Hope this clarifies things for you.

Regards

Olly Oyster



From: [REDACTED]
Sent: 24 October 2023 09:15
To: Ask Olly
Subject: Tickets to Zone 1

Hi Olly,

I am a CSA at Baker Street and I am wondering if you can clear something up for me, please?

We often get tickets from stations outside of London, for example, High Wycombe with the destination Zone 1. Does this entitle them to one journey from either Marylebone or Baker Street to any station in Zone 1?

As these tickets are more expensive than a ticket to London Terminals, I always assumed this was the case.

Kind regards
[REDACTED]



Hi [REDACTED],

You are correct, in that such tickets with a destination of Zone 1 or U1 allow the customer to make a single journey to any LU station within Zone 1. In the example you have given they should therefore allow interchange through our gates at either Marylebone or Baker Street for the customer to complete their journey.

Just to clarify that it isn't a Travelcard and doesn't allow additional travel within Zone 1, as some customers often think. To do that they would need to purchase a Day Travelcard also covering travel to / from High Wycombe.

Regards

Olly Oyster



From: [REDACTED]
Sent: 15 October 2023 16:03
To: Ask Olly
Subject: Resolving journeys question

Hi Olly,

I have a question about resolving journeys on Oyster cards.

I know you used to be able to do them years ago but for the past two years (I think) I'm sure I read from T&R that we are not allowed to. The only journeys I personally resolve is if a customer touches in at my station and out again at my same station because they decided not to travel.

My colleagues said we are allowed to resolve journeys as long as they are within LU e.g. not national rail. For example, if they have touched out at London Bridge but not at the start at Bond Street, essentially resolving the journey to £2.70 instead of the max fare, however I thought we could not do this. Please can you clarify?

Thanks,
[REDACTED]



Hi [REDACTED],

You are basically correct in that LU staff should only resolve a journey if the incomplete journey has occurred within the last 48 hours and has resulted from either.

- a known incident, such as power or validation equipment failure
- customer error at the station (e.g. touching out with Oyster when travelling on an NR paper ticket)

A customer forgetting to validate at the start of their journey at another station, would not be a valid reason to resolve an incomplete journey on arrival at London Bridge and in such circumstances the correct course of action would be to direct the customer to their online account or to contact Customer Services to have the incomplete journey resolved.

Regards

Olly Oyster



SPECIAL FEATURE

MISSSED COLLECTION FORM MIGRATING TO POWER APPLICATION

Migration of the Missed collection notification to the new Microsoft Power Platform has now been completed and T&D is now ready to deploy the App, which will be made available from Monday 4 December 2023.

The decision has been taken to dual run the both new Power App form and Mi-Apps Ticketing Missed collection eForm, until Wednesday 13 December, when T&D will then decommission the Mi-App e-form.

Prior to deployment, all current users will receive an email from the Ticketing & Revenue Team with the link to this App. The Missed Collection page on Platform will also be updated to provide a link for easier access.

The new form is optimised for iPad, and while it has the same layout as the existing Mi-App Missed collection form, the user will have a better user experience.

All mandatory fields are marked with an asterisk (*) before the field name. We have also taken the opportunity to update the collection frequency list as follows:

- *for the stations with more than one collection a week now enter "More than once a week"*
- *new options to select either 4 weekly or Dynamic frequent have been included on the list.*
- *some redundant reasons for missed collections have been removed.*



Power Apps | Missed Collections

Report a Missed Collection

* Business Unit: LU (London Underground)

* Accounting Unit: Select an option

* Date of Missed Collection: Please select date

* Frequency of Collection: Select an option

* Collection Type: Select an option

* Notification Type: Select an option

* Reason: Select an option

Change Delivered: Select an option

Comments:

Both the time the security company arrived and the What is collected / delivered options are conditional and will only be visible and need to be completed if selected as the relevant option.

The time the security company arrived will only be visible if "Security company too early / late" is selected.

Items collected / delivered will only be visible if "Partial Collection or Partial Change Delivery" is selected.

Finally, the T&R team is taking an active role in managing Missed Collections and once a form is submitted, they will also receive a notification to allow them to work closely with Cash Services and G4S to improve performance.

If you have any collection related queries or want to find out more about the new App, please contact the [T and R Performance Mailbox](#).

Microsoft Power Platform

A Missed Collection has been registered!

Business Unit: LU (London Underground)

Accounting Unit: Burnt Oak

Date: 04:08:36PM, 23-11-2023

Completed By: Shabbir Ahmed

Frequency: Once a week

Collection Type: Schedule

Notification Type: Missed Collection

Change Delivered: No

Reason:

What was collected/delivered?:

Comments: TEST-PLEASE IGNORE

Regards, Missed Collection Team

REVENUE PROJECTS

TOM UPGRADES

Following an initial Vanguard which focused on TOM locations where bankcard payments are still processed, including the two TOMs at Stanmore and those within Visitor Information Centres, Cubic were given to go ahead to deploy updated software to all of our TOMs and SAFs.

The main changes in the new software version were around the processing of bank card transactions, which LU devices, other than those at Stanmore no longer process. However, to ensure all devices are operating on a common version of software, the new version was deployed to all LU devices. Within this software release there was also some fixes to address an issue which from time to time caused the RTD to reset itself during an Oyster transaction.



COMPLETED ✓

Devices were remotely updated with the new software during the evening of Friday 22 September with devices switching to the new software around 03.00 hours ready for start of traffic the following morning (Saturday 23 September).

A further TOM upgrade programme has recently commenced, with Cubic engineers replacing the battery within the TOM UPS (Uninterruptable Power Supply) unit. This ensures that the device will shut down safely and data will be retained, if there is any type of power supply failure to the device. This programme commenced on the night of Sunday 18 November.

SC RATIONALISATION

Next year there are plans to upgrade all of our Station Computers (SCs) and ahead of this the opportunity has been taken to review sites which currently have more than one SC.

Changes to the way in which devices are connected and data is transmitted, means that at some locations where multiple SCs were needed in the past, it is now possible to link devices to a single SC.

This has previously been successfully implemented at Canary Wharf in conjunction with changes that were made to the gatelines there and the elimination of the separate NLC that allowed customers to walk through from one end of the station to the other, before the gatelines were remodeled to allow this.



FARRINGDON

In the New Year, we are planning to rationalise the current Station Computers at Farringdon (Main and Cowcross Street South) and at Waterloo (Main and Auxiliary).

Apart from reducing the number of SCs and maintenance costs, it will also mean that the SCUs within the Station Control Rooms at these two stations will eventually have visibility and control of gatelines that are not currently displayed on their existing SCU.

The planned changes will not affect Farringdon (East) or Waterloo (Colonnade or Southbank) which will continue to remain connected to separate SCs.

Further information on the programme to replace the existing SCs at other stations will be included in future editions of TRU, nearer to the planned start date for the programme.

WATERLOO

REVENUE PROJECTS

MFM UPDATE



In TRUI47 in our update on the planned changes to the MFM software, we reported on an issue that had been identified at the locations where the new software had been loaded to MFMs fitted with a Bank Note Acceptor (BNA) unit.

The new version of MFM software had been deployed to 33 MFMs (roughly 10% of the MFM fleet) at the end of September. This represented a mix of devices fitted with a BNR and those fitted with the more basic BNA unit. Unfortunately, within the first couple of days of this being deployed, we identified an issue with the software on BNA devices, which resulted in the note vault having to be serviced to clear an error code, whenever a TSID card holder signed on to the device.

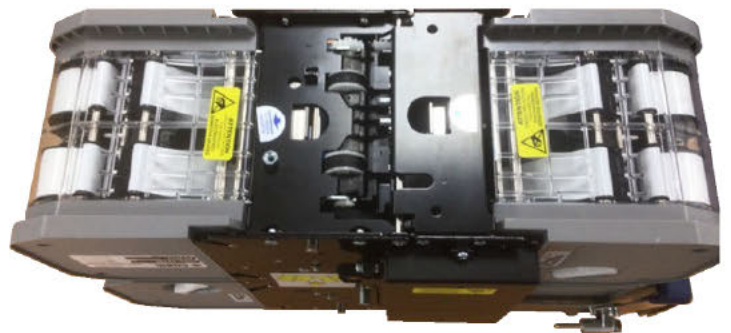
As a result, the BNA devices were quickly reverted to the standard MFM software. However, devices fitted with BNR units were not affected by this particular issue and continued to operate on the Vanguard software without significant issues.

Cubic have since identified a fix for the BNA issue and a further release of MFM software is now on Vanguard. This further software release also includes an additional fix for an issue that was identified during testing, which is present in the current version of software and sometimes results in a discrepancy being reported when a note jam is cleared.

This latest software was deployed to the original 33 devices on the night of Thursday 09 November. A review of the performance of the BNR devices which had been operating on the Vanguard software had identified a reduction in the number of note jams on most MFMs, apart from a small number of devices which were indicating a potential hardware issue as being a cause of notes jamming. It was then agreed to extend the Vanguard to a further 40 devices on Wednesday 15 November and then to a further 30 MFMs the following night. The extended Vanguard now covers a total of 103 devices. This is approximately 1/3rd of MFMs (again covering a mix of BNA and BNR devices). The performance of these devices will now be monitored before a decision is made at the beginning of December, on whether to deploy the new software to the rest of our MFMs, hopefully before the Christmas period.

We have also been working with Cubic on the implementation of some physical changes to the MFM that would allow LU staff greater access to the NHU to clear jammed notes. Currently if a note jams within the note handling mechanism, staff are only able to clear jams in the upper part of the transporter mechanism. If the note becomes jammed elsewhere, it requires a Cubic technician to attend. In cases of a basic jam caused by a damaged or creased note, this means that a device may be in "no notes" mode or out of service for a lot longer than necessary.

A demonstration of these hardware changes to the MFM, for Functional and Health & Safety representatives was held, at Ashfield House on Wednesday 22 November. Following this demonstration and prior to the final rollout of the new MFM software, we are planning to start a Vanguard of the hardware modifications that will allow staff greater access to the NHU to clear note jams during the first week of December.



This Vanguard will be restricted to a small number of locations, so that we can evaluate the impact in reducing clearance times and gauge staff feedback on this change. Briefing notes will be supplied to staff on the stations involved, explaining the detail of the changes and how to access the NHU to clear a jam. Further information will be included within TRUI49.

REVENUE PROJECTS

GATE UPGRADES

A lot of work has recently been taking place to upgrade gates at our stations, with two programmes recently being completed.

E1 and E2 Gate Ramps.

COMPLETED ✓

The final LU site to receive replacement gate ramps was successfully completed on the night of Wednesday 25 October.

The programme will now move on to complete similar work at London Overground stations.

Pneumatic Gate Light Beams

A short programme to upgrade all of the older pneumatic gates with replacement light beams also recently finished with the final stations completed on the night of Thursday 23 November.

Attention now turns to the updating of the more numerous E1 type of gate, which are mainly located at stations outside of Zone 1. This is scheduled to continue until February 2024.

WAG Gate Paddles and Motors

A third gate programme to replace the motors and paddle shafts and to fit the new lighter composite material paddles to all of our WAGs is also continuing and should see all LU gates updated by March 2024.



COMPLETED ✓



FEDs

A further project which is in the planning phase is the FEDS project. This has nothing to do with US law enforcement but relates to a project which we are due to deliver for all devices which currently use the Windows 10 operating system.



One of the main impacts of the project will be to deliver a permanent solution to the issue that has resulted in Cubic not being able to remotely view or update a number of our SCUs from time to time and requiring an engineer to visit each device to make it "discoverable" remotely again.

Although a temporary fix for this issued has been Vanguarded on around 100 SCUs, we were prevented from rolling out the solution to any more units pending the rollout of the FEDs project.

Current timescales for the project are as follows:



Device	Vanguard Date	Rollout Period
ADVANCED FARE MACHINE	January 2024	Between Spring and End of 2024
MULTI FARE MACHINE		
STATION COMPUTER		
STATION CONTROL UNIT		
TICKET VENDING MACHINE		

Further details will be published once Vanguard sites and dates for each element to start have been confirmed.

REVENUE PROJECTS

CHD UPGRADE

Since the last update in TRUI47, the Vanguard of the new CHD software has been successfully deployed to two of the three CHDs at Waterloo.

Unfortunately, the final device in the Waterloo (Assist) POM Room could not be upgraded due to issues with the fixed line connection that this device uses.

Frustratingly the necessary changes had been made to allow the CHD at Waterloo (Colonnade) to be upgraded as planned on Tuesday 17 October, but the necessary changes to allow the second fixed line device to be upgraded were not made due to some confusion regarding locations between the TfL T&D team and the contractor Capita.

We had been hoping that Capita (the IT contractor) would be able to resolve this issue on Thursday 23 November, which should then have allowed the final device at Waterloo to be updated before the end of November. However, at the time of publication there appears to have been a further set back regarding the internal approval for the necessary firewall changes to allow the devices to communicate with the new Pay Complete back office.

We had also planned to extend the Vanguard and deploy the new software to all of the CHDs at Kings Cross later that week, but this deployment is also now on hold, as all of these CHDs require a fixed line to communicate and require approval of the necessary firewall change.

Despite all of these setbacks the new software seems to be performing well with no major issues being raised from any of the 5 Vanguard devices, although based on feedback from users, we have made some minor tweaks to a couple of the screens. As a result, we have obtained approval to start the rollout of the new software and replacement PCs to other devices starting with stations at the east end of the Central line during the first week of December, this should see CHDs at a total of 21 stations (all stations from Leyton eastwards) being updated between Monday 04 December and Thursday 07 December.

We are able to proceed with this, as all of these devices are now using a 4G / 5G modem connection to communicate and are not dependent on the IM network connection. Three locations were previously on fixed lines but Pay Complete have successfully tested and then installed modems at these three sites.

PayComplete



Like the initial Vanguard sites, once upgraded the CHDs will be connected to the new Pay Complete back-office and initially users will not be able to change their CHD PIN at any of the stations using the new CHD software. Changes to the user file made at other stations will automatically be copied across to the new back-office by Pay Complete.

This is only a temporary arrangement whilst we are effectively operating a dual system and staff will eventually be able to change their PIN on any device as they could before.

Unfortunately, because of these delays, it is unlikely that we will be able to complete any further batches of devices before the Christmas / New Year break. We are hoping that the planned deployment to other stations will then be resume in the first week of the New Year and will be spread over 12 further batches. This will however be partly dependent on the resolution of the issue with the fixed line locations, as we currently have only been able to Vanguard this configuration at a single site.

Due to the much-delayed start to the rollout, it is now likely that the programme will not be completed until Spring 2024

REVENUE PROJECTS

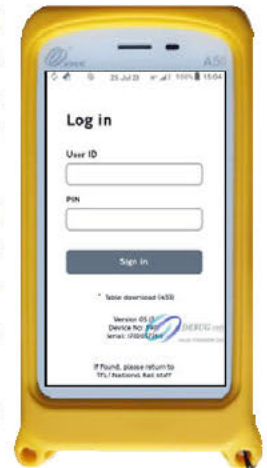
REVENUE INSPECTION DEVICE UPGRADE

News about the Revenue Inspection Device comes from two fronts this month.

The first is an update to our previous article in TRUI47, where a planned software upgrade from version 5.17 to version 5.18 was found to have connectivity issues and meant that all devices had to be rolled back to the previous version on Wednesday 25 July, whilst these glitches were fixed by Cubic.

In itself, v5.18 was only ever meant to be a temporary upgrade as work had already started on v5.19 which was due to be rolled out to all devices a few weeks later. However, as work was required to resolve the connectivity issues, it was decided that all of these would be rolled into a revised version, now designated v5.20.

After a short, but ultimately successful Vanguard, the new software was rolled out to all RID devices on Tuesday 03 October.



Shortly after this, Cubic informed TfL that PAX Technology the makers of the RID (actual name A50 Android MiniPos+) had stopped manufacturing this model and it would no longer be available for purchase from April 2024.

Ordinarily this would be a problem, but as the RID uses bespoke software and has a defined purpose, it is mostly a requirement for spare parts and replacement devices which needs to be addressed. Happily this has been mitigated for and there are no immediate plans to replace the existing service regime as:

- Cubic have already built up a sufficient service spares pool to cover the 2000+ RIDs currently in use.
- TfL have recently placed an order of 1200 additional RIDs to support the additional demand for RIDs due to the expansion of contactless across the Southeast and for operators who have changed their inspection model.
- Cubic have contacted all current stakeholders to ask if they have any plans to increase the number of RIDs they may require over the next two years as funding can be made available to purchase the additional devices in mid-December.
- Stakeholders, such as the T&R Team / Revenue Control already have a number of spares in their secure storerooms to be able to swap out devices as faults occur or replacements are required.

Certainly, in the longer term a new device will need to be introduced as a form of RID3 and you can rest assured that we will keep you informed of developments as we are made aware of them.

TVM SOFTWARE UPGRADE



A further upgrade programme recently started, this time affecting our TVMs.

Following a Vanguard on a small number of LU TVMs, Cubic are currently rolling out a new version of TVM software.

This will be remotely deployed to each TVM over the next few weeks during the evening and will then take effect from start of traffic on the following day.

The latest software update includes a couple of defect fixes relating to the issue of Day Travelcards, one of these being some incorrect and potentially misleading text being printed on Day Travelcards.



Other than these the upgraded software should be undetectable to customers or staff.

...AND FINALLY!

SKIMMING UPDATE

LOOKING AHEAD TO TRUI49

TRUI49 is expected to be published in mid-December, when we plan to provide you with updates on:

- *Further update on the planned changes to the MFM*
- *Update on T&R Charity activities*
- *Progress update on the CHD upgrade*
- *Further detail on the planned MFM changes*
- *A look ahead to what's in store for 2024*
- *Update on Christmas and New Year arrangements*
- *Update on other projects going on around the network*

We also intend to include more of your questions sent in to [Ask Olly](#), plus a selection of our other features.



T&R Team,