

Reference Documents:

1. NAO Report: <https://www.nao.org.uk/wp-content/uploads/2017/04/Investigation-into-the-South-East-Flexible-Ticketing-Programme.pdf>
2. DfT response to FOI request by Projecting Success

## Overview

This report was collated from material that has been placed in the public domain in the interests of ensuring that others are able to leverage insights and avoid similar challenges.

1. On 11 Nov 2011 the Secretary of State for Transport sought ideas that could be included in the Autumn Statement to support the Growth Agenda. A proposal was conceived to roll out smart ticketing on London-facing TOCs at an estimated cost of £45m. Due to the very short notice (one day) the Department for Transport (DfT) generated an estimate using, inevitably, broad assumptions, without engaging with the TOCs and other delivery agents.
2. In the Autumn Statement on 29th November, the Chancellor announced funding for the creation of a £45m programme to extend smart ticketing for commuters in the South East of England. Work began in DfT on scoping the programme. SEFT was therefore born as a new programme and the TOCs learned of it on the day of the announcement.
3. Although this created impetus, it effectively launched a programme that had weak foundations which, despite various resets, remained with the programme throughout.
4. The DfT has not delivered the original ambition of the Programme as set out in 2012. The Department expected the Programme to result in a range of benefits, including an improved experience for passengers and reduced costs to train operating companies of selling tickets. An original aim when the Department established the Programme in 2012 was to have flexible ticketing in place on 11 franchises running services into London by 2014. The Programme will now deliver under half of the scope in DfT's Outline Business Case of June 2014, due to the difficulties of the initial years 2012 – 2014. None of the key milestones identified initially in 2012 were met to plan.
5. By April 2017, the Programme has enabled five of the 11 train operating companies running services into London to offer season tickets on smartcards. Only one of the five train operating companies currently offers flexible season tickets
6. Achieving the economic benefits of smart ticketing stated in the 2014 business case depended on eventually achieving 95% of take-up of smart season tickets. In the 12 months up to March 2017 8% of all season ticket sales on participating train operating companies were on smartcards.
7. DfT has spent £54 million on the Programme, compared with the original budget of £45 million. In April 2016, the Department estimated that it would cost a total of £96 million to deliver the full scope of the Programme as set out in the 2014 business case.

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8. Government suggests that lessons have been learned, but noting that the distribution of the lessons learned report was restricted to the SRO, this appears unlikely, hence Projecting Success' desire to share the experience more widely for the benefit of society.

## Experience that others may be able to leverage

### 9. Programme approach.

- a. 'Anecdotally, TOCs often have little confidence in government's ability to lead complex and wide-ranging programmes such as SEFT'.
- b. 'a programme was commenced that had not fully considered the customer offering, the marketing and communications plan, or how to measure the metrics by which they choose to measure progress. A more formalised Programme Management approach should be adopted in future'.
- c. 'SEFT was established, in a vacuum and lacked a programme road map based on bespoke TOC by TOC plans. This led to the scheme being predicated on a common specification based on the previous Southern franchise-based scheme. This meant that there was uncertainty over the objectives of the Programme, which reduced buy-in from stakeholders'.
- d. 'Visibility of a central plan for the delivery of all central and non-central SEFT schemes would have been helpful in identifying possible pinch-points/ risks to individual TOCs within the overall SEFT programme'.
- e. 'The Programme was notionally run by ATOC, but the DfT was felt by many in the industry to be too controlling and therefore to be undermining the efforts of ATOC, in particular by over-specifying the nature of the deployment. The subsequent imposition of a combined DfT/PA Consulting Programme team has left a legacy of mistrust'.
- f. 'If the Programme had been planned from the outset using an established good practise methodology, there would have been less room for uncertainty around its scope and it would have been better able to withstand the subsequent challenges to cost and benefits'.
- g. 'Strong 'PPM' practise and experience could have reduced the likelihood of re-plans'.
- h. Limited insight on how or when the flexible part of SEFT was going to be delivered, despite it being within the scope of funding from the beginning.
- i. 'Based on the early SEFT roll-outs, smart ticketing was seen anecdotally as a product with complex delivery processes, no supporting TfL SLA and no interoperability agreements'.
- j. 'One principal conclusion from SEFT revolves around the provision of a poor customer experience with smart tickets. Although it is improving, ATOC research has apparently shown that it can be difficult to locate the product on the TOC websites and can also be complex to apply for. There is also an issue related to staff training, in that customers find that when travelling there is the uncertainty about whether the ticket will be accepted when you get to the other end or meet

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- a RPO on route. This reinforces the lesson that a robust, clear, customer proposition must be central to the programme from the very earliest stages’.
- k. ‘different messages to passengers from staff because of poor training and a limited range of journey routes available. In addition, a smartcard ticket product can take up to 2 hours to become available for collection, which is too long from the customer perspective’.
  - l. ‘Further issues include inconsistent branding, passenger confusion about the geographic scope of a ticket, different offerings across TOCs (for example, delay repay is not available everywhere) and TOCs that don’t promote the product enthusiastically. As a result of all the above issues, customer and to an extent TOC, confidence has been impacted’.

## 10. Stakeholder engagement.

- a. ‘DfT need to ensure that ongoing and future programmes manage stakeholder (TOC) expectations and needs more effectively’.
- b. ‘It has become clear that whilst the programme should have been treated as a business change programme the initial focus around the use of ITSO and the back office architecture took the programme down a path which led to delay and antagonism from the TOCs’.
- c. ‘Not effectively addressing train operators concerns and lack of enthusiasm’.
- d. ‘The business requirements, roadmap, commercial elements lacked focus in the early days which led to the stakeholders venting their frustrations on the technical design work which did not have any scheme design material on which they could be referred to’.
- e. ‘The DfT should have listened to the operators (TfL and TOCs) who had experience in this area’.
- f. ‘Ensure early market testing of key suppliers prior to finalising procurement strategy’.
- g. ‘The CDT appeared to become overly defensive in its behaviours reducing communications and engagement with external stakeholders’.
- h. ‘In difficult situations it is imperative to avoid loss of ownership among those who are the customer/asset managers of the solutions’.
- i. ‘There has been a considerable shift towards proactive and collaborative working with TOCs since the Programme moved to Passenger services in April 2016. Through engagement with the SEFT TOCs collectively and individually, at Project Boards and one to ones, it has been possible to start to nurture a level of industry enthusiasm and ownership for smart seasons in the South East’.
- j. ‘Alternate plans should have been devised and implemented if buy in from stakeholders could not be guaranteed’.
- k. ‘Whilst it sounds sensible to consult with stakeholders before initiating programmes, the commercial relationships can cause problems when sharing too much information’. It is important to ensure that issues associated with commercially sensitive information are highlighted early and the impact assessed so that it can be managed and mitigated as appropriate.

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## 11. Technology Programme?

- a. 'A key lesson about SEFT is that it should not be considered as predominantly a technology programme. Rather it is about delivering a business change based on a compelling customer proposition, which is itself enabled through technology, marketing and programme management'.

## 12. Incentivisation

- a. Government viewed the programme through their lens but the incentives to move to smart ticketing were didn't exist for TOCs or the end customer. Take up has fallen far short of expectations.
- b. 'Take-up potential has been proportionally greatest where the TOC has committed to deliver smart ticketing as part of the ITT franchise competition'.
- c. 'From a TOC perspective, there often isn't any immediately apparent commercial imperative to adopt smart ticketing. (The cost of a smart ticket is potentially 10 times that of a paper ticket, if you exclude sunk costs such as staff.) Equally, whilst closing ticket offices could generate significant cost savings, in reality staff are usually re-assigned to other duties and no cost benefit materialises'.
- d. 'Testimony in the lessons learned consultation indicates that some attempts to introduce SEFT smart ticketing resulted in a poor customer experience, causing the TOCs involved to incur additional costs and potentially brand damage. As a result, some TOCs may view SEFT as a reputational risk'.
- e. 'Programme did not take into account the rail industry's desire to take a holistic view of ticketing which led to a certain level of disengagement'.
- f. 'A few TOCs felt that DfT could have done more to assist with differential pricing, to make smart tickets attractive to customers'.
- g. 'Not building a compelling passenger offering and then not marketing the product in an effective way, resulted in low levels of passenger awareness that the product existed. Take-up was impacted by glitches in the systems for buying the product and no use of 'hooks' such as delay repay or discounted pricing'.
- h. 'During 2012 there were issues with TOC acceptance of SEFT, reportedly as a result of the poor performance of the product to that date and concern about the proposed system architecture. 2 of the 7 TOCs did not want to be involved with the CBO concept'.
- i. 'The strategy so far has been to require the TOCs to respond to a commercial imperative or to be compelled through franchise agreement or deed of amendment terms. It is apparent that the commercial imperative does not work as there is no (immediate) ROI for the TOC. Take up has been markedly less successful where the target is poorly specified in a franchise agreement and not tailored to the circumstances of that TOC's market'.
- j. 'In consultation with the RDG, DfT should state unambiguously what it expects from the industry in respect of smart over the medium term, both generically and TOC specific, to allow the industry to absorb and get comfortable with the operational and commercial implications. This Strategic Overview Statement needs to be achievable commercial and technically. In particular, DfT need to specify entry criteria for SEFT, (for example, adoption of the CBO,) and criteria

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- that a scheme must meet to be considered feasible and receive DfT funding, (for example, a well-thought through customer proposition and marketing plan)’.  
k. ‘The SEFT Programme could have avoided additional changes and ongoing costs by requiring all TOCs to make use of the single Central Product set, even if they were not migrating to the CBO itself’.  
l. ‘In future, we would recommend that DfT roll out smart ticketing initiatives by asking the relevant TOC for a costed, time-based proposal, to achieve a DfT policy objective that includes a high-level deadline date, for example, ‘roll-out smart ticketing in the TfN region by 2019’. In particular, the TOC would be asked to specify the level of take-up they could achieve, and any strategic barriers, such as a conflict with another Programme. This would approach should be designed to give the TOC ownership of delivery, and thereby remove many of the reasons for non-delivery to date’.  
m. ‘The levers used so far to compel or facilitate smart ticketing have proved ineffective in many cases’.

### **13. Business case**

- a. ‘The Programme was initiated without clarity on its business case (SOBC) and it struggled thereafter to gain buy-in from key players to its cost and benefits’.

### **14. Metrics and measurement**

- a. ‘It is important to define metrics with a knowledge that data can actually be collected to easily validate progress against them. It is also important to keep a metric as simple as possible so that its meaning can be clearly understood by non-specialists stakeholders’.  
b. ‘Collecting ticketing data is simple when a TOC is signed up to the CBO but difficult (time consuming and costly) when the TOC uses its own back office HOP. Consideration should be given to mandating us of the CBO’.  
c. ‘TOC take-up targets were difficult to independently verify’.

### **15. Lack of clarity on scope and requirements.**

- a. ‘The Department secured funding for the Programme without an agreed scope or agreement with industry bodies on how the Programme would be implemented’.  
b. ‘In general, 2011 – 2013, progress was impeded by a lack of clear documented scope and requirements’. ‘Insufficient clarity on what was required for delivery – it seemed to be “do what Southern have already done”’.  
c. ‘The full scope to deliver SEFT was not understood at a high level at the outset. Resources, such as for consents and approvals, and funding, such as for PVALs, later came under intense pressure as a result’.  
d. Boundaries were ill defined.  
e. ‘The Europay, Mastercard and Visa (EMV) trial was not in the original scope of the Programme and was never fully scoped. However, there was a strong desire from both the DfT and TfL that a trial should be undertaken to see how the TfL back office systems could be extended to provide longer distance travel across multiple schemes (i.e. TfL and TOCs). A formal funding line was included in the

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2014 Outline Business Case and a project was initiated between Chiltern and TfL to undertake a trial. But cost estimates for the trial became prohibitive. No alternative options were pursued, e.g. via an open competition for TOCs to submit response to a DfT Request for Proposals’.

- f. ‘The EMV requirements should have been scoped out better during the early part of the Programme or taken out of the scope for the programme’.
- g. Client stakeholders used the ambiguity to try to resolve outstanding issues on other projects, creating resentment with the TOCs.
- h. ‘To avoid delays to launching in external party estates, ensure interfaces to external parties are scoped and fully considered in design stage and followed up as a dedicated project’.
- i. ‘Following advice from smart ticketing schemes that had gone before and the fact that the Programme was not scoped down to the level required for a system integrator to be able to accurately price as well as the lack of ITSO scheme experience from system integrators, the Programme Board agreed on the Programme taking the system integration risk’.

## **16. Ineffective governance.**

- a. The governance arrangements were too complex. The Train Operating Companies did not feel part of the programme and behaved accordingly. ‘Critically, not all TOCs participating in SEFT were empowered by the DfT to make decisions in first few years of the Programme. They felt lesser partners to the two large owning groups who had been invited to sit on the Programme Board.’.
- b. ‘The Department’s internal audit identified, in 2013 and 2016, weaknesses in the Programme’s governance. In its 2016 audit, which was undertaken between 14 March and 4 April, it found that the Programme’s governance and commercial arrangements had been ineffective in holding to account Transport for London, the Rail Delivery Group and the train operating companies for the delivery of the Programme. For example, the Department negotiated funding agreements with train operating companies to implement smart ticketing outside of the Programme’s governance, which resulted in a lack of consistency in requirements, such as take-up of smart ticketing’.
- c. 6 changes in location of DfT sponsor within 5 years. ‘They should be located within rail organisationally. Should be embedded as commercial initiatives within the functions closest to serving the passenger, through active management of the franchise agreements’.
- d. The commercial relationships were held by DfT franchise managers, therefore, those who were responsible for driving delivery had limited leverage to hold them to account.
- e. ‘The agreements as created, gave DfT no authority to instruct TfL’s supply chain with regard to how and when it delivered system design and enhancements, or to prioritise SEFT over other TfL business’.
- f. ‘Roles and responsibilities didn’t reflect the jurisdictions of the organisations who owned the relationships’.

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- g. 'The Programme governance structures and commercial agreements have been ineffective in holding the Programme team, the TOCs and TfL to account for delivery of the Programme's objectives and resolving issues outside the Programme team's control'.
  - h. DfT was perceived to have also lost influence at TfL. Improving the links with TfL was an urgent requirement in the opinion of the TOCs.
  - i. The programme suffered 4 pauses to review future direction which appear to have contributed to a delay of ~12 months. These were: 1. Disagreement over the central system architecture. 2. Review of the business case following increased cost estimates and delivery risk and concerns over the capability of the Central Delivery Team. 3. Audit over the future of the programme due to concerns over progress and approach. 4. De-scope SEFT to existing commitments only.
  - j. 'SEFT should have adopted and strictly implemented a recognised delivery management model which built programme organisation around the roles outlined in the MoU (funder, client and delivery agents) with suitable gateways and controls'.
  - k. 'The Government Internal Audit Agency found that there was insufficient financial visibility at the main governance boards'.

## 17. Commercial challenges

- a. Lack of resources to negotiate 11 Deeds of Amendment with the TOCs, which the report.
- b. Deeds of Amendment (DoAs) should have been signed after the programme had established what was required of its supply chain requirements, i.e. its commercial partners and TOC delivery agents. The commercial team lacked the programme context.
- c. The DoAs were negotiated separately from SEFT Programme governance, on a TOC by TOC basis. Collectively, they were therefore not a coherent means to deliver the funder's objectives.
- d. The requirements in the DoAs should have been connected and aligned with the Programme's critical success factors and the stated take-up trajectories in subsequent business cases.
- e. 'The programme entered into multiple negotiations with eleven TOCs with insufficient regard to the complexities of endeavouring to switch them all over in parallel to smart'.
- f. 'A procurement was launched in Sep 2012 which later had to be pulled following the appointment of a new Procurement Lead who pointed out the lack of governance arrangements might cause legal issues down the line. The second procurement was launched in Nov 2013, however was also pulled following the reboot of the Programme in 2014 as the PVals were no longer in scope for the early phases of the rebooted Programme'. 'This led to the market feeling that the Programme did not know what it wanted to deliver and a reluctance to respond to future requests for information/services. With the ITSO smart ticketing market being relatively small this may have caused reputational

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damage for any future procurements which ATOC/RDG (RSP Ltd was the contracting party for the first two procurements) may wish to undertake on smart ticketing services’.

- g. ‘Ensure that the state aid and competition issues are resolved early on in the Programme by dedicating suitably skilled resources during the feasibility and design phase’.
- h. ‘Creating an appropriate contractual framework to enable collaboration, govern delivery, sustain operations and build future service improvements is of critical importance to a Programme of this nature, which cuts across many commercial entities and interests’.
- i. ‘Programmes like SEFT that have so many commercial, contractual and systems interfaces, are vulnerable to any weaknesses in third party agreements, outside their management control. SEFT has incurred additional delays to technical delivery due to shortfalls in requirements specified in the separate IoP project, where quality acceptance criteria were inadequately drafted’.

#### **18. Critical success factors were ill defined.**

- a. ‘The Programme would have had greater ability to manage the expectations of its key stakeholders and contain scope if it had established its key success criteria from the outset’.

#### **19. Lack of effective financial oversight.**

- a. ‘DfT released funding to the TOCs without setting provisions within the DoAs that tied payment to project delivery milestone evidence or take-up performance. As a consequence, DfT was unable to exercise control after the funding was released’.
- b. ‘Approval to make payment was required from the Rail Investment Board (RIB) and this practise in itself introduced uncertainty of funding for the CDT and caused delays. To avoid these issues, the Funding Agreement with RSP should have specified pre-defined conditions for payment (e.g. task order, payment milestones) and the named individuals authorised to instruct the RSP team and/or make payment’.
- c. ‘A lack of clarity around the exact amount spent to date between DfT and SEFT’
- d. ‘Differences in the way that spend was categorized’
- e. ‘A lack of traceability within the DfT’
- f. ‘Single Source of the Truth. Whereas previously the DfT had maintained it’s own forecasts and actuals sheets, the decision was taken to combine these with the cost model, creating a single reporting tool and preventing version control issues’.
- g. ‘Historic invoices were haphazardly stored. A process was agreed whereby the invoices would be submitted to the DfT with a cover sheet confirming that they had been checked by RSP and the SEFT Central Delivery Team and capturing any variances’.

#### **20. Ineffective resource management.**

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- a. There was an ongoing lack of control regarding resource planning and management. This was particularly prevalent within the commercial function where resources fell far short of what was required.
  - b. 'Early in the Programme the Department identified concerns about the feasibility of the timetable and the Programme team's capacity to deliver the Programme'.
  - c. 'Ensure adequate resource profiling and planning requirements are established at the outset'.
  - d. 'With flexible ticketing being both part of the name and mentioned in the chancellor's announcement in 2011 more resources should have been allocated to deliver the flexible element of SEFT'.
  - e. 'There were several occasions when the Programme had to step back or suspend certain activities (i.e. the PVal procurements) as the resources were not available to undertake the design work required for the continually changing scope'.
  - f. 'Interoperability with TfL was not fully resourced in phases 1 to 3 (to June 2014) to enable successful integration and go live with full functionality. This led to:
    - i. Sub-optimal customer experience (no ability to pick up from TfL managed stations, no ability to buy at TOC TVMs within TfL boundary, which were as a result of the scope of the underlying IoP project and functionality)
    - ii. TfL did not give enough priority to SEFT's needs
    - iii. Service Level discussions took too long with TfL changing tact on several occasions'.
  - g. 'This meant that the project was managed by TfL and Chiltern with no oversight from the CDT. As the trial was not originally part of the scope for the Programme, the additional scope which was not reflected in sufficient additional resources put additional pressure on existing DfT resources until the Programme re-boot'.

**21. Challenges with the use of external support** The way in which external support was deployed appears to have attracted a significant amount of resentment and illustrates the challenges of a lack of sensitivity in how external resources are utilised.

- a. 'Importing external consultants had an adverse impact on the effectiveness of the programme. Rail colleagues became uneasy about the size and cost of the new resources and the way experienced team members in RSP were replaced by the newcomers. Furthermore, in the opinion of some, this development resulted in the TOCs and RSP stepping 'back from the Programme' in October 2013, having formed the impression that DfT had taken charge of delivery directly, through 'its' augmented team.'
- b. 'The Programme became increasingly isolated between 2013 to 2015, due to the perceived concentration of delivery decision-making at DfT. In the opinion of key respondents, the consultancy support "acted to buttress the SROs views"'.
- c. 'Issues over the central spine of consultancy working for the SRO rather than the benefit of the programme seem to have been side stepped'.

## **22. Shortfalls in benefits management.**

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- a. 'SEFT did not follow good practise government guidelines on how to identify, define, establish, deliver and realise benefits from a programme. As a result, several critical foundations were not identified'.

### **23. Weaknesses with change management**

- a. 'Future programmes need to ensure that any changes in technical approach are fully impact assessed before they are agreed'.

### **24. Lessons not learned.**

- a. Lessons not really learned from other similar programmes. Mistakes were repeated. 'Opportunities were missed or taken too late to learn from previous multi operator and multi modal schemes'.
- b. 'Greater consideration should be given at the beginning of programmes to look at other similar programmes. SEFT looked to Stagecoach and Go-Ahead mainly for their smartcard learning. They had some experience in interoperability, but it was in hindsight insufficient to inform the breadth and level required for a scheme covering the entire South East. These owning groups were also actively promoting their own commercial interests.'
- c. Lesson not learned from experience with London Midland: 'The financial penalties in the franchise were insufficient to incentivise compliance. The interface with the IoP project was not managed effectively'.
- d. Lesson not learned from experience with Southern: 'No take-up targets or financial penalties were stated in the franchise terms'.
- e. 'Learning lessons from the Highways Agency, and their Early Contractor Involvement scheme (ECI) and London Underground's major capital procurements for Programmes like the Bank Station Capacity Upgrade and Northern Line Extension, we can understand the benefits of engaging the delivery agent in the detailed specification and detailing of the work package. Our recommendation is that this needs to happen on future smart initiatives.'

### **25. Assurance planning.**

- a. 'An Integrated Assurance and Approval Plan (IAAP) should have been developed at the outset of the Programme, by the Sponsor, alongside the Programme Definition Document produced by the CDT. From then on it should have been integral to the overall programme plan (with an explicit audit and assurance work stream, driven by the Sponsor's PMO, within it). The IAAP should have formed part of the Management section in the Business Case for SEFT.'

### **26. Test and acceptance**

- a. 'A clear set out acceptance criteria need to be defined and adhered to during the migration of the test system and then the live system'.
- b. 'Sufficient preparation and planning time should be scheduled to ensure a smooth and to schedule migration'.
- c. 'Ensuring the freezing of system functionality on both sides makes the migration process more efficient and reduces the risk of delays or failure of the process'.
- d. 'Without the test environment the amount of additional testing and assurance activities required to ensure a successful delivery would have delayed the

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successful implementations of CBO components as well as the on boarding and migration of TOCs’.

- e. ‘In hindsight, the importance of the test environment should have been promoted sooner and more effectively in order to avoid issues with buy in from all stakeholders’.

#### 27. Additional observations by Projecting Success:

- a. **Assurance and governance** Questions must be asked about the effectiveness of the assurance and governance process if issues were flagged up and not addressed. Our dataset often highlights that assurance gate reviews are perceived as hurdles and actions are often not followed through to conclusion.
- b. **Perspective** It is interesting that the perspective of the reviews are predominantly through the lens of the client. There will undoubtedly be a wide range of insights from delivery partners that would add richness to this case study, but this perspective is generally in short supply.
- c. **Uncertainty** Often there is a desire for programmes to drive uncertainty out by forcing decisions and making assumptions. It is generally unclear how the programme has characterised uncertainty, leveraging areas of consensus and identifying a roadmap to either resolve or tolerate remaining areas of uncertainty.

#### Acronyms:

ATOC	Association of Train Operating Companies
CBO	Central Back Office
CDT	Central Delivery Team
DfT	Department for Transport
DoA	Deeds of Amendment
EMV	Europay, Mastercard and Visa
ITSO	Originally ‘Integrated Transport Smartcard Organisation’, but now ITSO
RDG	Rail Delivery Group
SEFT	South East Flexible Ticketing
TfL	Transport for London
TOC	Train Operating Company