

Multi-Operator

Contactless & Pre-Purchase Strategy

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Executive Summary

TravelMaster is currently one of the leading smart integrated ticketing systems in the UK and this is a reputation we are keen to maintain as we continue to deliver for our passengers.

With our **Contactless & Pre-Purchase Strategy** we are outlining how we intend to approach the expectation, and general trend towards, contactless capping in a commercially sustainable way whilst also protecting the viability of our range of pre-purchase ticketing products.

This strategy details the approach we intend to take towards delivering contactless capping within the region and how this might exist in a complementary way alongside our established integrated ticketing offer. **All pricing is indicative only.**

Headline Approaches

1

We will align with the systems and strategies being deployed by the industry at large to deliver multi-operator capping on a large scale as outlined in the Confederation of Passenger Transport (CPT)'s **'Moving Forward Together'** strategy.

2

We will look to minimise the need to disproportionately increase fares to fund the development of contactless capping or other ticketing systems by looking to work with our **Local Authority Partners** to secure capital funding for infrastructure requirements where available.

3

We will develop a system of caps that are **commercially sustainable** for the local marketplace. These will be the default means by which passengers access 'walk-up' travel as part of their journey and will complement established pre-purchase season products.

4

We will enhance our approach to pre-purchase products and deliver a **move towards a subscription model** using existing ITSO infrastructure or QR codes over the purchase of individual products to increase passenger accessibility and convenience.

1. Background

TravelMaster has supported the principal of contactless capping across the past 3 years and appreciates that there is a migration towards this in the industry alongside a general expectation from passengers.

The national operating groups have committed to delivering multi-operator ticketing through the Confederation of Passenger Transport (CPT) **'Moving Forward Together'** strategy which has committed to **'price capped daily and weekly ticketing in urban areas across multiple operators'** and TravelMaster will work to support this objective.

To do so we will understand the technical and infrastructure requirements needed locally to integrate with this joined up approach and ensure we position our range of products in a **sustainable** way alongside it.

2. The Operator Led Solution

TravelMaster fully supports the contactless systems being developed by the nation's operators and we will be looking as to how we will **deliver sustainable multi-operator capping** within this environment. This will further see us seek to formally engage with the working group formed by operators nationally.

We will seek to deliver this with as little local capital cost as possible to ensure the system does not result in a need to disproportionately increase prices to fund its development. So this means, as far as is possible, we will look to **deploy it using already deployed hardware or hardware procured through any available grant funding**.

3. TravelMaster's Role

We will not be procuring the system, back office or developing the delivery of contactless capping ourselves. Instead our role will be to ensure that **the deployment of the operator-led solution is sustainable for the local marketplace**.

This will see us be the **organisation responsible for determining how the operator-led capping system is deployed**, maintaining compliance with competition legislation and identifying the rules around how those caps are deployed and revenue apportioned within the local marketplace.

As our result our strategy will focus on three key areas:

1

Identifying the infrastructure requirements and **preferred delivery approaches (e.g 'Tap-on')** for capping locally (based on existing hardware, vehicle configurations and other considerations).

2

Evaluating and **developing a system of sustainable caps that are to be deployed within the operator-led system that reflect the local marketplace** and exist in synergy with our pre-purchase range of products.

3

Ensuring **a robust governance model for the delivery of capping locally** and for the allocation of revenue within a multi-operator capping environment to ensure we meet our obligations under the Ticketing Scheme Block Exemption.

4. Challenges Within Existing Infrastructure

Through using existing infrastructure to deliver contactless capping there are **a number of challenges** that will need to be addressed to enable delivery. These are primarily:

- Operators who do not currently have the ability to accept contactless payments on-board their vehicles.
- Operators with contactless compatible hardware not currently integrated with the Operator-Led system.

These will need to be worked through and it is envisioned that **the enhancement of these systems will need to be at the cost of each operator or covered through any available grant funding** rather than TravelMaster directly.

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This is one of the areas where we will look to work with our **Local Authority Partners** to potentially secure funding for new Electronic Ticket Machines to ensure smaller operators have access to a level playing field with larger ones.

5. Potential Approaches to Capping

There are a range of approaches that we will explore to deliver contactless capping but these will be **subject to the limitations noted below on page 10**.

These are generally hardware limitations alongside the need to ensure the approach to capping is commercially sustainable, beneficial for passengers and reduces the time taken to process payments on-board.

We will be considering three high-level approaches and the **Contactless Delivery Working Group**, created via this strategy, will be tasked with identifying the most viable approach.

'Tap-On' Only

A passenger will board a service and use a contactless card to pay for a single fare as they do currently. **As they travel these will be aggregated** until they reach a predetermined cap in the back office.

- In the absence of having one fare for all journeys regardless of length **this approach will require driver/conductor interaction** to identify the appropriate single fare for the journey being made.
 - This means there would **unlikely be time savings made on board buses**. Additionally if passengers migrate from a single transaction to buy a 7-Day ticket to numerous single journeys this may result in increased time spent at bus stops.
- Without a 'tap-off' **the end point of a journey would be unknown** and would therefore have to be calculated through back office logic or through driver interaction when boarding.

This approach may be more viable were an alternate means of determining alighting point be determined for each passenger.



'Tap-On' & 'Tap-Off' - Same Device

A passenger will board a service and tap their contactless card against the existing on board ticket machine. **They would then tap their card against the same machine when they alight** from the service.

- This approach provides a journey end point so **the back office will calculate the appropriate single fare and aggregate them** until the cap is reached.
- This would require a **passenger to tap-off when they leave a service**. This would use the same device as the one they boarded through.
 - On a bus they would use the ETM in the drivers cab and this may cause a conflict between them and boarding passengers - however the cumulative time taken may still be less than a system requiring driver interaction.
 - This would not operate effectively on the tram as a conductor is mobile and it would be unreasonable to require a passenger to find them before alighting.

This is not a preferred approach as it would significantly increase on board dwell times.



'Tap-On' & 'Tap-Off' - Second Reader

A passenger will board a service and tap their contactless card against the existing on board ticket machine. **They would then tap their card against a secondary device when they alight** from the service.

- This approach provides a journey end point so **the back office will calculate the appropriate single fare and aggregate them** until the cap is reached.
- This would **require significant capital investment in infrastructure and hardware** with all vehicles requiring a second reader and the Supertram requiring multiple secondary readers - this is estimated to have a **cost of between £600,000 & £1.5 Million**

6. Setting Multi-Operator Caps

Integral to the deployment of a multi-operator capping system is the need for **logical and commercially viable caps** and TravelMaster will be responsible for setting these alongside outlining the business rules associated with them.

This strategy is not identifying what those exact caps may be but it does commit to ensuring that the caps identified **are relevant for passengers whilst also sustainable for local operators.**

For example, we may base caps on:

- Our current countywide range of ticketing products (the SYConnect).
- Our current district products (such as the CityWide/DConnect).
- A bespoke cap designed to ensure viability of capping alongside providing a compelling offer for passengers (e.g £6.00 a day & £19.00 a week).



We would look to position our 1 & 7-Day multi-operator caps as the **default approach for passengers looking to pay for travel on the day**. We would then price our pre-purchase products around longer term usage.

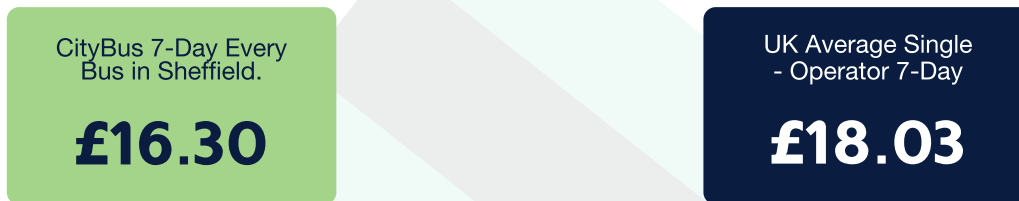
In the interest of maintaining a simple offer our preference is to simply passport our existing on-vehicle prices across into a capping structure. Delivering this will be our default approach - however, where that is not possible or not sustainable we would consider the other two options to ensure longevity of the approach.

Using Doncaster as an example, a passenger travelling across two operators, **regardless of how many journeys they make with their contactless card**, would potentially be charged a maximum of £5.00 for a day. If this pattern progressed as soon as they reached £17.30 they would be capped at that for the week (based on current prices).

7. Commercial Challenges & Sustainability

South Yorkshire currently has some of the **lowest multi-operator fares in the country** with many being priced less than the national average fares for single operator use.

This already represents a challenge for operators in an environment where **fares for weekly tickets have increased below cost** and this is only just sustainable in the region as passengers make a deliberate choice to pay a premium for the convenience of multi-operator tickets.



This means we will take a very careful approach to determining the caps in place and will work to **protect revenue through pre-purchase products and reward passenger loyalty through lower priced season tickets** compared to on-vehicle capping structures.

Our capping will, as a minimum, be based on our on-board prices not our advance purchase rates and may also see the differential between these increase in order **to ensure continued commercial sustainability of services** especially where there is a risk that a capping structure could cannibalise single fare revenue.

We will therefore position our capping structure as complementary to our pre-purchase range of 1, 7 & 28-Day products that we would work to enhance through greater accessibility of these and **through the facilitation of subscription systems to enable monthly payment for products** akin to services like Netflix.

Ultimately the approach we take will need to strike a balance between providing a customer with the benefits of contactless capping whilst making sure that it doesn't reduce the sustainability of the network provided as a whole.

8. Protecting & Developing Pre-Purchase Products

All revenue currently accrued through TravelMaster is based on the purchase and usage of paper/smart 1, 7 & 28-Day products that are purchased prior to the majority of journeys being made. **We would seek to keep and protect these products** as:

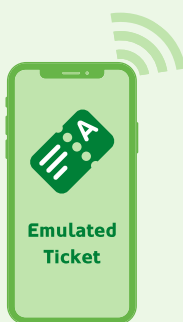
- **not all operators may choose to engage with the contactless structure we develop** and maintaining viable pre-purchase products ensures that they can continue to participate in the market and benefit from the region's multi-operator offer.
- **contactless is only relevant for passengers with contactless cards** - we will therefore maintain and protect pre-purchase products to ensure those without contactless cards, bank accounts or children can continue to access the region's multi-operator offer.

As a result we would look to **position our contactless offer as the default for walk-up/infrequent users or those primarily travelling on single fare journeys** and position our pre-purchase range of products as the default for routine and long-term regular passengers.

In practice this means we would:

- Price our pre-purchase range of products at a lower rate than the on-vehicle capping structure to reward passenger loyalty.
- Make it easier to pay for pre-purchase products **by implementing recurring monthly payments against annual products** that would be blocked if a payment fails.
- Maintain and deliver enhancements to our pre-purchase retail infrastructure **through exploring new ways of fulfilling our products** for passengers - such as QR codes and mTicketing.

Key Areas of Development for our Pre-Purchase Infrastructure:



Emulated Smart Cards

We will develop the TravelMaster Download App on Android devices so the device can be used as a smartcard **removing the need to load a product to a smartcard through a phone** .

We aim to pilot this technology in Late 2020.

Enhanced QR-Code Infrastructure

We will look to enhance the **QR-Code systems we have in place for our products to make them more accessible** and sustainable. We will do this through identifying opportunities to put more products on operator own mTicket apps and assessing the business case for our own system using QR-Tags.



Protecting Cash Payments



We will work to protect cash purchase opportunities for passengers, particularly the unbanked, by maintaining Payzone/Post-Office **as our default cash point of sale providing 900+ places** for them to purchase their products.

We will also explore the cash purchase of 'payment codes' for use online in lieu of a debit/credit card.

Subscriptions & Monthly Payments

We will identify how we could deliver recurring payments/subscriptions to enable **passengers to pay for products on a monthly basis and remove the need to renew** a product.

This may take the form of a recurring billing or an alternate account based system.



9. A Note on Limitations to Our Approach

Our strategic approach will have to be based on what is deliverable within the constraints and context of the region's existing infrastructure and existing fare structures.

Infrastructure Limitations

Our strategic approach will be **dependant on the region's existing infrastructure** and this means a capped transaction will have to be undertaken through existing electronic ticket machines.

This means that the system can only be a 'tap-on' system unless there is significant investment in secondary readers or the existing ETM is used. The latter would have a potential cost of **£600k - £1.5Million** which means that, in the absence of external or grant capital funding, the most effective 'tap-on' and 'tap-off' model is out of scope as we cannot fund this.

The lack of a 'tap-off' means that a journey will not be completed so a passengers alighting point, and the application of any zonal caps, will have to be delivered through back office logic based on return journeys or through driver/conductor interaction.

Fare Structure Limitations

In the absence of a flat fare structure, that TravelMaster cannot require, the system will **need to accommodate a variable single fare structure** and these will remain configurable by each individual operator.

Driver/conductor interaction is needed to identify the correct single fare for a journey and so long as 1-Day & 7-Day products can be bought on-board with a contactless card, **an interaction will be needed to determine if a single or a season fare is being paid for**. This will increase the time spent at bus stops which would be reduced with a one single fare structure and the withdrawal of 1-Day & 7-Day products being sold on-board. TravelMaster cannot mandate this.

Additionally, an operator may choose to deploy their own single operator cap within the system or simply rely on the multi-operator cap and, whilst **the latter would be the most simple**, TravelMaster can again not mandate this.

10. Delivery Roadmap

Phase 1

- **Operator engagement** will be undertaken to understand the region's existing technical infrastructure and on-boarding requirements.
- We will formalise a '**Contactless Delivery Working Group**' to manage implementation of contactless locally and formally join with the national working group to align with national strategy.



Phase 2

- We will facilitate the **on-boarding, technical and contractual, of operators with** the operator-led solution alongside working through any device certifications required.
- We will begin working through **commercial modelling for our potential capping structures** with these options designed for subsequent ratification by TravelMaster's Board.



Phase 3

- We will specify the **business rules** in place for our capping structures and the rules in place around the apportionment of revenue.
- We will begin testing the deployment of contactless capping through the 'Contactless Delivery Working Group' to **develop processes and quality assure** the system.



Phase 4

- We will pilot our capping structure in one of our zones to understand the commercial and operational impact and **qualify a set of lessons learned** prior to wider deployment.
- The 'Contactless Delivery Working Group' will define and **agree the communications strategy** that will be put in place for the wider launch of contactless capping.



Phase 5

- We will **reflect and review our capping structure** based on the pilot undertaken and will, via the 'Contactless Delivery Working Group', facilitate a wider roll-out.
- Our contactless capping structure **will be deployed throughout the region** and communicated to customers alongside enhanced pre-purchase systems.

In parallel with this roadmap we will be **enhancing our pre-purchase offer to enable recurring/subscription payments** for products on a monthly basis to protect that offer.

12. Contactless Delivery Working Group

To deliver our contactless strategy we will **formalise a task and finish** working group with the purpose of facilitating and delivering contactless payments in the region.

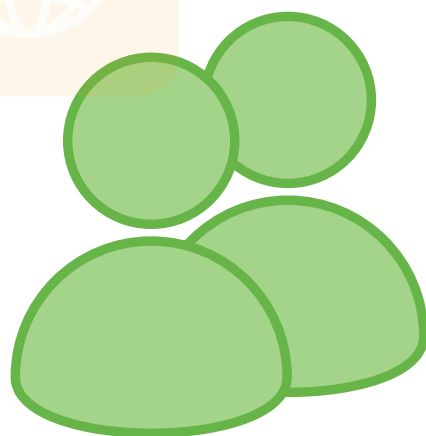
TravelMaster's Board of Directors will **devolve to this group responsibility for the delivery of contactless capping in line with this strategy** and it will be made up of representatives from all of the operators on which contactless capping is sought to be delivered alongside the **South Yorkshire Passenger Transport Executive/Mayoral Combined Authority** who will provide a passenger and public policy perspective to delivery.

The group will specifically be tasked with:

- Determining the Capping Methodology ('tap on' only vs. 'tap-on' & 'tap-off').
- Working through commercial modelling and assessments to support the Board's decision making around the caps to set.
- Determining the communications plan for passengers and for frontline staff.

The group will be proactive in identifying opportunities to enhance this strategy as systems develop and **will have flexibility to make decisions to ensure the robust and sustainable delivery** of contactless capping for the region.

The group will also seek consensus on policies, approaches and will be the forum through which unified quality assurance is delivered.



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