



CUBIC™ | Transportation Systems

Account Based Ticketing (ABT) and the Future Beyond

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Definition of Account Based Ticketing

- PAYG travel (but possibly pre-paid as well)
- Validation through tapping in at a gate/validator at start of journey (or via an onboard validator) and out at a gate/validator at the end of the journey
- Token used is an account ID rather than a journey based rail ticket
- ITSO and EMV currently tokens being used but others possible
- Can be paid for by (stored credit) pre-pay wallet or post-pay

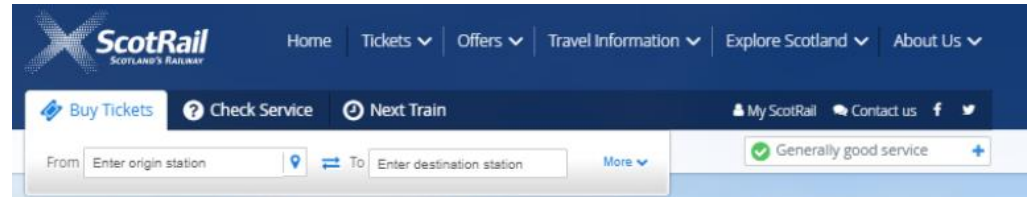
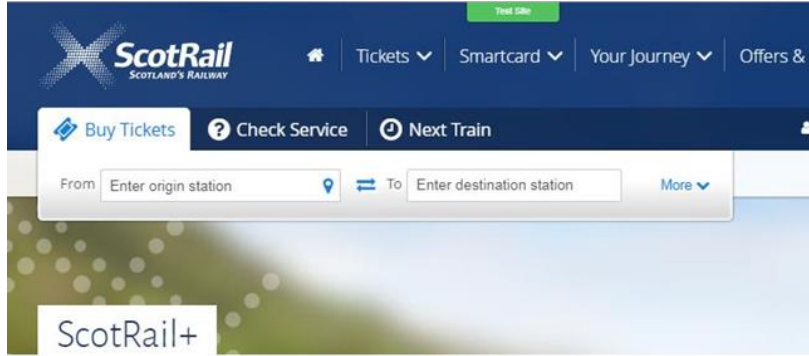


Benefits of Account Based Ticketing and the Future

- Better customer proposition leading to “best fare” guarantee and weekly capping
- Convenient ticketing - tapping in and tapping out, account auto top-up
- Ease of use will increase travel and could reduce revenue leakage
- Potential for reduced cost of sale
- ABT is an effective stepping stone towards “first mile – last mile” and MaaS travel



ABT Account User interface for Abellio ScotRail Pilot



ScotRail+

Balance: (May not reflect all recent journeys) £32.51 [↗](#)
 Status: ACTIVE

Version: 0.35

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Terms

ScotRail+



Last updated 11 Oct 2017

Balance: £22.50 [>](#)

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Journey History

Complete History [▼](#)

Date	Journey	Ticket Type	Fare	
08-NOV-17	Neilston (NEI) - Mt. Florida (MFL)	Weekly Season	£0.00	+
07-NOV-17	Neilston (NEI) - Mt. Florida (MFL)	Weekly Season	£0.00	+
08-NOV-17	Neilston (NEI) - Mt. Florida (MFL)	Weekly Season	£0.00	+
05-NOV-17	Neilston (NEI) - Mt. Florida (MFL)	Weekly Season	£0.00	+
05-NOV-17	Mt. Florida (MFL) - Glasgow Central (GLC)	Anytime Return	£2.80	+
04-NOV-17	Neilston (NEI) - Mt. Florida (MFL)	Weekly Season	£21.00	+
03-NOV-17	Neilston (NEI) - Unknown	Incomplete Journey	£8.40	+
02-NOV-17	Unknown - Glasgow Central (GLC)	Incomplete Journey	£8.40	+
18-NOV-17	Neilston (NEI) - Glasgow Central (GLC)	Anytime Return	£2.80	+

My ScotRail+ dashboard

Payment

< Journey

Journey History

Journey History (Dynamic/Fake)

Incomplete Journey

Refund Request

Account

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Register

Toggle Flow

Abellio Scotrail Copyright

Key lessons learnt

- Success is driven by the **quantified** business case (increase in revenue, decrease in cost, increase in customer KPI)
- Systems integration is a pivotal part of the overall success of the deployment
- Management of other dependent parties is key including clear definition of roles and responsibilities of each party
- A shared service across ABT customers seems a necessary step to get economy of scale and interoperability
- For rail require a model that transcends a rail franchise duration to ensure continuity when franchise changes hands

Next steps beyond the Abellio ScotRail ABT pilot

- The Abellio ScotRail ABT solution offers an important stepping stone towards providing integrated ABT solutions in transport. Further possibilities could be
 - Introduction of multi-modality (e.g. bus)
 - Wider geography beyond the pilot region
 - Become a key building block on further developments towards Mobility as a Service (MaaS)



Regional synergies and differences



Department
for Transport

Rail Delivery Group



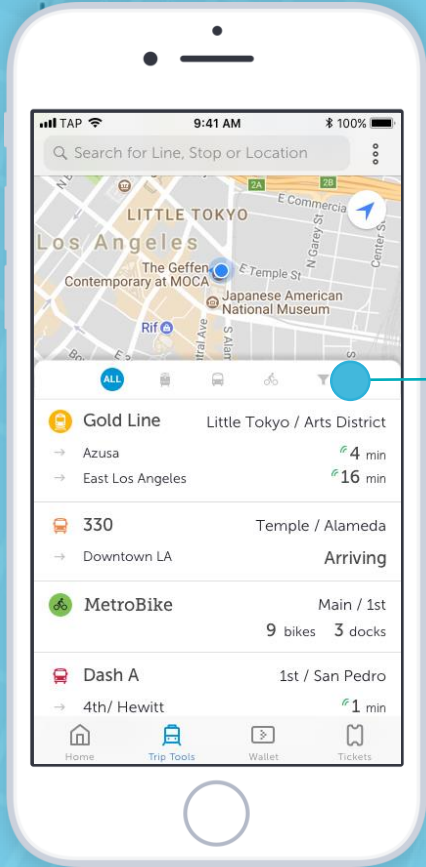
Major city upgrades to ABT and EMV using Cubic

- Some examples

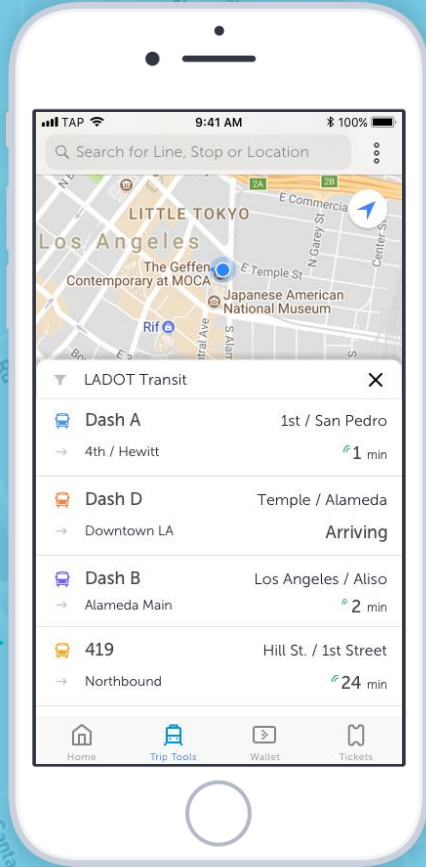
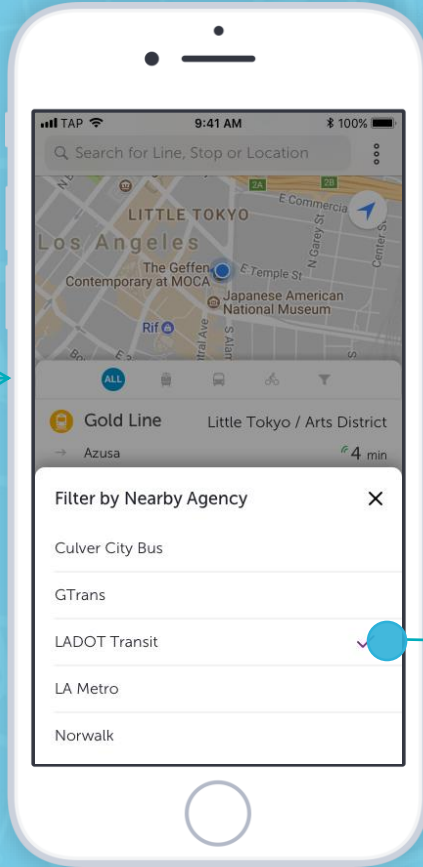
	ABT and Private Label		cEMV	Other existing passes	Mobile	Comments
	ABT	Private Label				
London	No	No	Yes	Yes	Yes	Since 2014
New York	Yes	No	Yes	No	Yes	New solution
Chicago	Yes	Yes	Yes	No	Yes	Since 2013
New York	Yes	No	Yes	No	Yes	New solution
Boston	Yes	No	Yes	No	Yes	New solution
Sydney	No	No	Yes	Yes	Yes	New solution except Mobile
Queensland	Yes	No	Yes	Yes	Yes	New solution



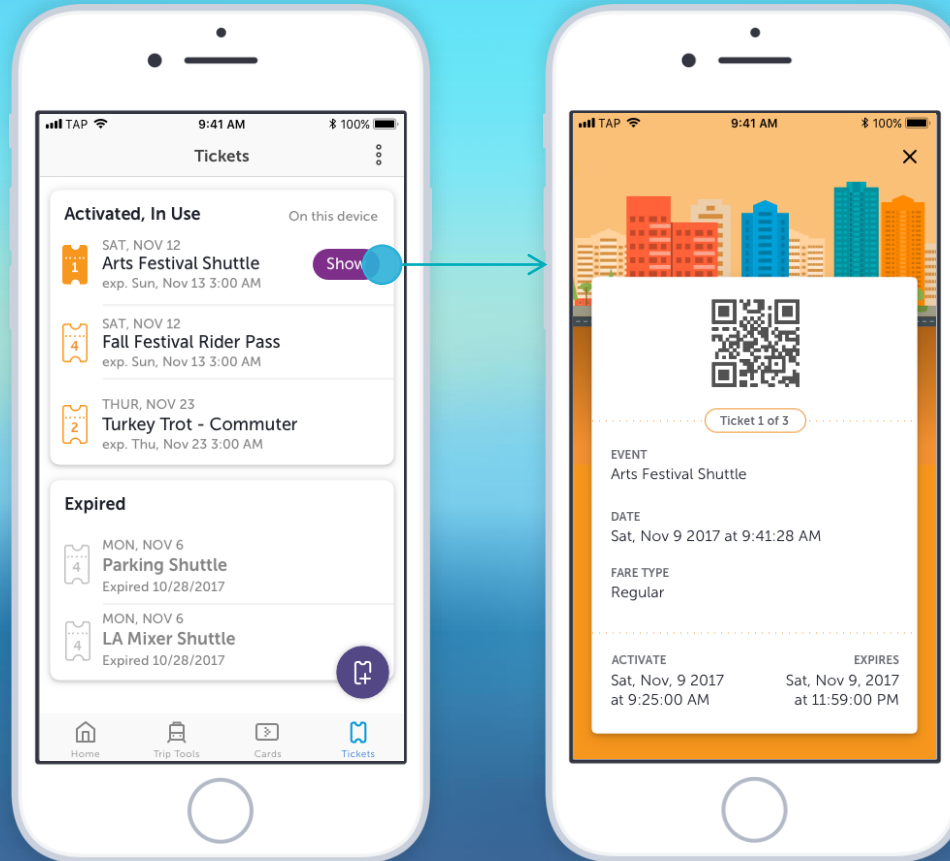
Mobile solution for Los Angeles



LITTLE TOKYO HISTORIC DISTRICT



Potential services beyond transit



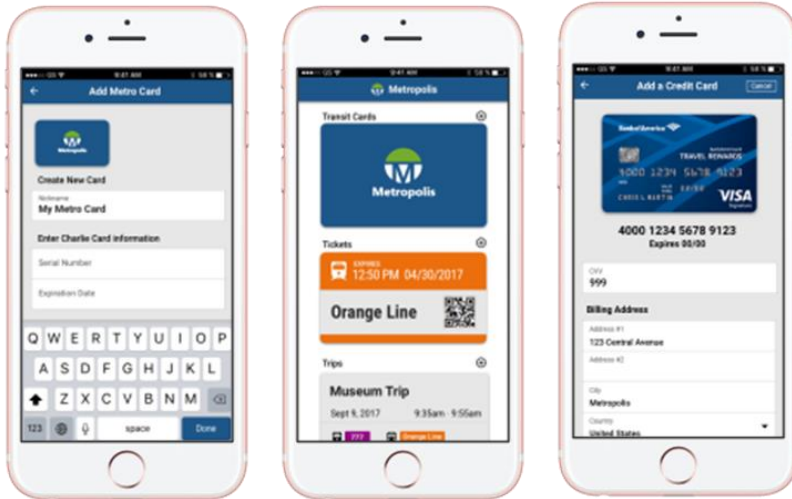
Growing move towards mobile ticket

- Validation will bring total management on a mobile platform
- Successful and growing in London for CPAY
- Mobile barcode becoming more widespread
- Options starting to emerge for ITSO on Mobile, albeit Android only at the moment



Next Steps Beyond ABT

- ABT and increased Mobile offerings are a natural step towards
 - Multi-modality (e.g. bus)
 - Include “first mile” and “last mile” of journey (
 - Move towards Mobility as a Service (MaaS)



Mobility-as-a-Service Components

- END TO END JOURNEYS

- *From door to door*
-

- INTEGRATED PUBLIC/PRIVATE TRANSPORTATION NETWORKS

- *Public (Rail, bus, metro, etc.)*
 - *Private (Lyft, Uber, Zipcar, Bikeshare, etc.)*
-

- INTEGRATED JOURNEY PLANNING

- *First and last mile services through deep linking with 3rd party apps and APIs*
-

- HOLISTIC, PREFERRED AND OPTIMAL SOLUTIONS

- *Multiple modes offered for travel*
 - *Fastest/cheapest/environmental*
 - *Optimal based on user preferences and service availability*
-

- REAL-TIME PASSENGER INFORMATION

- *Real-time data for planning and execution*
-

- ONE ACCOUNT SOLUTION

- *From an end user perspective having a single account that delivers the benefits and simplicity*

What are the steps to widespread use of MaaS ?

- ABT provides a first step
- Consolidate on ABT and include provision of multi-modal travel (bus and rail)
- Building the platform to enable growth to include other forms of travel and an end to end journey experience
 - *Keeping a single account function and a single integrated payment function*
 - *Providing a standardised API approach for ease of integrating other travel providers*
- Building around well established public and private transport service providers first
- Evolve from that position of maturity towards bringing in more complex transport service models and payment models