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Integrating Multimodal Fare Payments

July 28, 2021

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#TRBwebinar

APA Credits

- This webinar is worth 1.5 AICP credits through the American Planning Association

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Learning Objectives

1. Identify payment convergence and how to utilize it
2. List current industry developments in payment convergence

Multimodal Fare Payment Integration

A summary and an update of findings from the TCRP Synthesis SA-49 research paper

July 29, 2021

Photo by JJ Ying on Unsplash

Presenters of the TRB Webinar

Jeroen Kok
Moderator of this session and author of this Synthesis report

Director of Rebel Payments, Mobility and Insights

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Industry expert and author of this Synthesis report

Transit Agency Partnership Lead

David Block-Schachter
Industry expert

Chief Business Officer

Today’s agenda

1. **Setting the stage:**
   the challenge and the research approach
2. **Findings from the report and updates based on current industry developments**
3. **Payment integration in practice:**
   highlights from 3 case studies
4. **Webinar takeaways**

Setting the stage:
the challenge and the research approach


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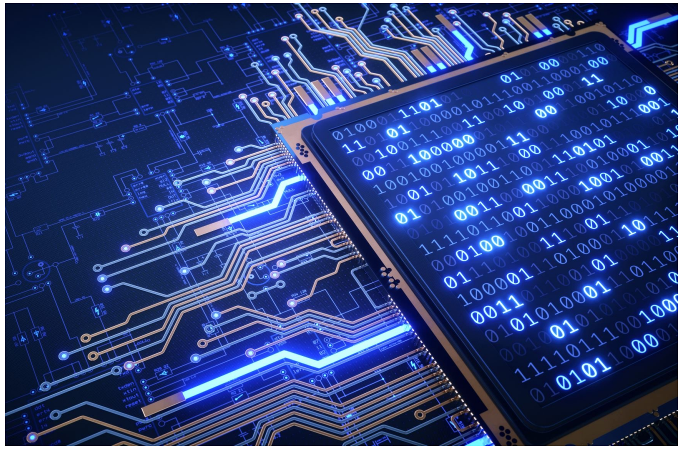
To make transit a viable alternative to cars, seamless customer experience is essential. Integrated payment is a key element of that customer experience.

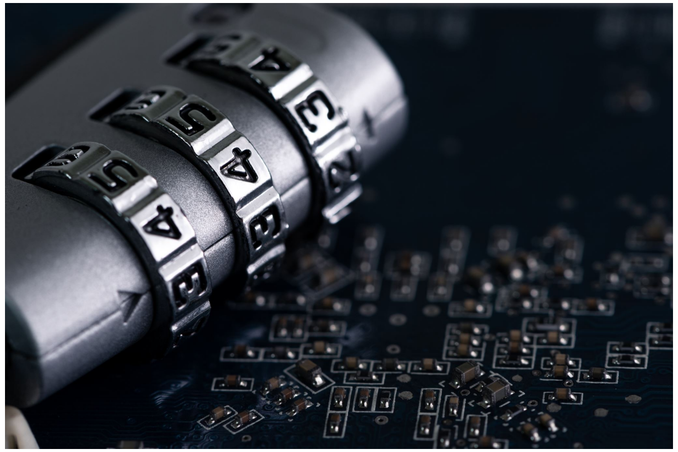
Nearly all transit agencies are seeing potential benefits to multimodal payment convergence. However, many agencies find that implementing necessary upgrades is cost-prohibitive, which is the biggest barrier to full adoption. The TRB Transit Cooperative Research Program's *TCRP Synthesis 144: Multimodal Fare Payment Integration (August '19)* documents current practices and experiences of transit agencies dealing with the complexities of multimodal fare payment convergence.

Key barriers of multimodal payment integration



Dealing with Technological limitations

Managing complex stakeholder landscape



Ensuring digital access to all

Research methodology followed in this report

Literature review

The research started with a literature review related to fare payments and the current state of the industry regarding payment integration, sources used:

Various TCRP research and synthesis reports

Industry white papers

Agency self-published materials

News articles

Survey

To gather information on how agencies have arrived or plan to arrive at multimodal payment integration we conducted an online survey:

36 agencies from the United States answered the questionnaire

Represeting 19 states and the District of Columbia

50%+ of the respondents stated that shared mobolity services are available in their service area

Case studies

Interviews with national and international transit agencies and other parties were conducted to acquire in-depth knowledge of applied payment integration approaches:

RTD (Colorado, US)

LA Metro (California, US)

Port Authority (Pennsylvania, US)

Metro St. Loius (Missouri/Illinois, US)

Translink (The Netherlands)

City of Antwerp (Belgium)

Findings from the report and updates based on current industry developments

Photo by Serge Kutuzov on Unsplash

Key finding: Types of payment convergence used by transit agencies

1. Payment convergence can be achieved in many ways. Although many forms of payment convergence, particularly with private transportation providers, are more easily achieved with account-based systems, agencies have been able to find alternative ways to achieve convergence while leveraging their existing systems.

2. Some agencies have led their own development roadmap, while others have leveraged private vendors. Agencies have found their own paths towards convergence, with some, such as LA Metro, actively developing their own product roadmap, while others, such as Denver RTD, have leveraged the development roadmap and partnerships of its mobile ticketing vendor.

Key finding: Potential opportunities and benefits related to payment convergence

3. **Many agencies see payment convergence as a way to attract more riders, and also to provide a more seamless experience.** Payment convergence, and the promise of more integrated trip planning, linked trips, and unified payments is very attractive to many agencies—particularly as transit riders are more connected than ever, and consumer expectations increase.

4. **Payment convergence may offer an opportunity to offer more cross-program incentives to specific communities** such as seniors, students, low-income riders, and riders with disabilities. Many agencies see payment convergence as an avenue for extending incentives beyond transit. Multimodal cross-program incentives are expected to enable transit agencies to attract customers to specific modes (e.g. bike sharing) and eventually away from cars.

Key finding: Potential challenges and issues related to payment convergence

5. Ensuring that all communities can access the fare payment system is challenging and is a concern for many agencies. Many forms of payment convergence are based on digital solutions that typically necessitate the use of credit or debit cards or a bank account and online access. Transit agencies are committed to serving all communities and have been able to find ways to continue to serve the un/underbanked and those without reliable access to smartphones.

6. Although many focus on technological concerns, consensus-building and decision-making is fundamental. Many forms of payment integration require decisions around fare reconciliation, data management and sharing, and other issues that need consensus, and impact operations for multiple parties. Achieving consensus is difficult, as shown in the Antwerp case study—and can be more challenging than technological barriers.

Key finding: Potential challenges and issues related to payment convergence (cont'd)

7. Completely changing an electronic fare payment system is cost prohibitive for many agencies, therefore many are using their mobile applications as a way to converge. Changes to existing systems typically include capital investments, and costly changes to central systems. In order to continue to add additional functionalities in a cost-effective manner, many agencies are adding mobile ticketing applications—which can more easily allow for some form of convergence.

8. Challenges with data management remain. Payment convergence necessitates sharing of information between public parties and increasingly private parties as well. Challenges regarding customer privacy, effectively and efficiently managing data, and cybersecurity are heightened as more information is shared and accessed. While all agencies agree that these topics are of concern, a consensus on how to address these issues has not emerged.

Payment integration in practice:
highlights from 3 case studies

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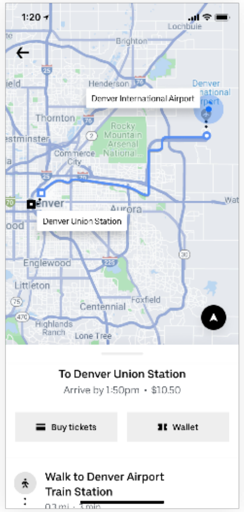
Case Study

Regional Transportation District (Denver, Colorado)

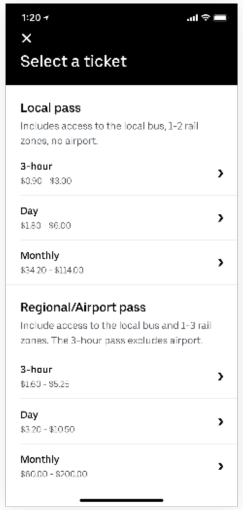
In April 2018, Uber and Masabi announced a strategic partnership to add public transit mobile ticketing into the Uber app. Subsequently, in January 2019, RTD announced that the Uber app will show Denver transit as an option to its users, effectively allowing transit trip planning in the Uber app.

By May 2019 RTD's transit tickets became available for purchase in the Uber app for a limited group of users. RTD does not have a contractual agreement or data sharing agreement with Uber. Tickets purchased in the Uber app are processed by Masabi's back-office, which is integrated with back-office of RTD's mobile ticketing app.



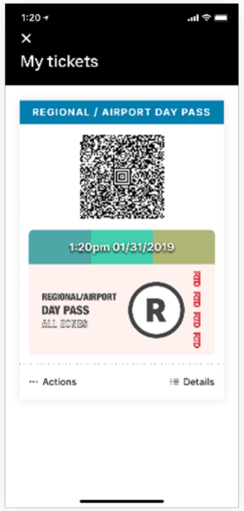
Buy tickets

Riders will be prompted to purchase tickets in the app.



Select a ticket

Riders can checkout once a ticket is selected.



Active ticket

Riders can present their ticket from the Uber app.

Case Study
Los Angeles County Metropolitan Transportation Authority

LA Metro kept the legacy smartcard fare collection system but built an account-based layer on top of it by providing software connections (APIs) between the two systems. The systems are communicating with each other to enable the account-based platform and the associated TAP card system to use a TAP Wallet® as a payment device for non-transit mobility services. This account-based layer allows new mobility providers to integrate through standard APIs and accept the TAP Wallet® as a means of payment.

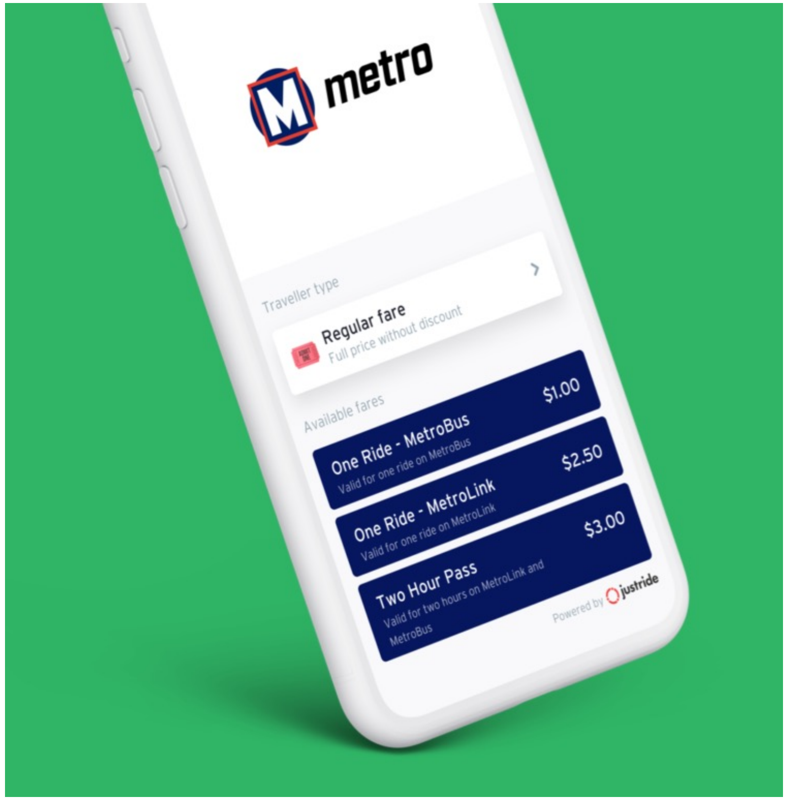
Bike sharing has already been integrated and many other programs such as Microtransit, scooters, electric vehicle car charging and more are planned for integration in 2019-20. After completing the hybrid system, LA Metro was able to implement incentives across customer groups such as seniors, students, low-income groups and customers with disabilities.

Case Study

Bi-State Development Agency (Metro St. Louis)

Metro's 2017 research found that 92% of their customers have a smartphone, so having more features and services available through apps was a priority for Metro.

In early 2019, Metro made Transit App the official real-time information and trip planning app for the agency, replacing its old "Metro On the Go" app. In addition to real-time information and trip-planning, Transit offers first and last-mile connections in the metropolitan region through Transit+.



To summarize:
Three key takeaways of the session

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This session's key takeaways

Emerging best practices and the impact of the COVID-19 pandemic

1 | Pushed by the pandemic: accelerated need for digital payments and payment convergence

2 | Integration going forward: open APIs vs. 'walled gardens' approach

3 | Doing more with less: the rise of demand response services and the need for integration

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Today's Panelists

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- Waiching Wong, *Uber*
- David Block-Schachter, *TransitApp*

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