Group Travel in Open Loop Transit Payment Systems

State of Play Memo — Cal-ITP Guidance for Small & Medium Transit Agencies

1. Purpose & Scope

This memo establishes standard guidance for group travel on open loop (bank card) payment systems. The guidance is targeted primarily at small and medium transit agencies in California who are considering group travel features and fare policies.

The document includes:

- What group travel is, and why some agencies consider specialized fares for the segment,
- Cal-ITP's framing about implementing additional customer-facing features,
- The recommended multi-tap approach, and
- A discussion on mitigating the drawbacks.
- Finally, the appendix lists the stakeholders interviewed for this work.

2. Group Travel: What and Why

Where an agency has invested in contactless open-loop payments, they often wish to migrate all their existing fare products to contactless, sometimes with the goal of reducing on-board cash collection or legacy tickets. One example is group travel, which means multiple people travelling together while utilizing the same fare media, often benefiting from a discounted fare. Examples include parent(s) traveling with children or groups of tourists or schoolchildren.

Specifically for Cal-ITP in 2026, there is an appetite to serve the needs of these customers in transit agencies who have already deployed open loop acceptance, noting that:

- Agencies are looking to avoid solutions that require driver intervention.[1]
- The ideal solution would require no physical changes or additions to existing fare equipment.
- Agencies hope to leverage open loop acceptance and, if not already in place, not have to complement it with parallel technologies such as mobile ticketing.

[1] A device can be connected to the vehicle's Payment Acceptance Device, which requires the driver to key in the appropriate number of fares. Cal-ITP agrees with agencies that this solution is not recommended as it disrupts the boarding flow, adds additional tasks for the drivers and often requires additional and/or customized equipment.

3. Recommendation 1: Do These Things First

While group travel may be of interest, Cal-ITP strongly recommends first ensuring transit agencies have implemented a standard, simple customer fare experience, as per the following recommendations:

A) Default to One Card per Traveler: Across all open loop implementations, Cal-ITP strongly recommends that agencies follow a "one card per traveler" policy, as shown by Ventura County's customer communication "1 Person = 1 Card." This policy ensures all customers can access reduced fares and benefit from free / discounted transfers and fare capping.

B) Implement Simplified, Unified Fares: Cal-ITP's May 2025 Statewide Fare Guidelines Toolkit provides recommendations for agencies looking for fare structure guidance, particularly in advance of, or in conjunction with, changes in fare collection technology. While open loop acceptance is not core to the guidelines, it is a key technology use case that underpins the timing and need for fare alignment (e.g. between neighboring agencies) and simplification (within an agency). One key recommendation is, wherever possible, to reduce the number of options that transit riders are faced with and to align the naming and definitions of each fare category with other agencies.

C) Children Should Ride Free: The Guidelines Toolkit recommends that children 0-12 years old have free transit, and that agencies also consider free transit for youth ages 13-18.

D) Validate the Need: Finally, the Guidelines Toolkit refers to Special Fare Products, which include but are not limited to group travel, stating that any special fare product "should only be considered if they have been validated as supporting a significant customer market and if the needs of the customer group(s) cannot be met with other tools." In terms of group travel, the need for a family fare is eliminated by children riding free and youth at a discount, as are the need for products targeted at school groups. With these two categories eliminated, agencies should then examine if customer categories requiring group fare remain, quantify their proportion of the agency's ridership (e.g. on an annual basis), and how much fare revenue this represents.

The addition of any fare product beyond the basic offering comes with cost and complexity – to the transit rider who is now faced with an additional choice, and to the agency who now supports more complex technology implementation and testing, customer communications, inspection training and support, and potential fare revenue implications (see Section 5 below for more details). If the anticipated customer volume is small (in total or relative to the total ridership), the benefits often do not justify the financial and non-financial costs.

4. Recommendation 2: Simple Multi-tap

For agencies still looking for a group travel solution, Cal-ITP recommends a simple multi-tap solution where the payment acceptance readers are configured to accept multiple taps for a single credential, e.g. physical

contactless payment card, a virtual card in a mobile wallet, or one set up in a wearable device. This configuration should consider the following parameters:

- Multiple taps are only allowed within a set time period, typically 10 minutes from the first tap.
- The number of permitted taps is limited to admitting the rider and up to four others. If the agency has an existing group travel policy that permits a different number of riders to travel with a single credential, the number of taps allowed should be consistent with that policy.
- Multiple taps should be charged the full adult fare rate. Discounted fare cardholders cannot pay for multiple riders with their credential.[2]
- Only the first tap will be counted toward any transfers, if possible. The additional taps on the same credential will be charged the full additional fare regardless of transferring.
- Only the first tap will be counted towards any applicable fare caps, if possible.

This configuration approach enables transit agencies to leverage existing open-loop hardware and software to the greatest extent possible and minimize additional product development. This avoidance of customized solutions also enables transit agencies to implement a multi-tap option on an ad hoc basis if the need arises, such as with the advent of a mega-event that entails large groups of people traveling together, which could be easily phased out as customer needs evolve.

Implementation of multi-tap functionality should be accompanied with robust customer education to all riders about the relevant parameters so that riders who are traveling individually do not accidentally incur multiple charges. This communication should also help customers who are looking to pay for fares for a group of people to consider whether the group option is the best choice for them; for example, a group of older adults traveling together may be better served by paying individually via connected bank cards (and thus enjoying a discounted fare) or purchasing discount fares through another fare medium if available.

Note that this multi-tap solution functions only when all customers traveling together using one credential remain as a group for the complete end-to-end journey. This is particularly important if some or all of the transit system is access controlled or requires customers to tap in and tap out, as they would not be able to end their trips separately in different locations. In all cases, the separated group members who are traveling without the credential should incur fare penalties for doing so.

5. Managing Key Challenges

Agencies considering a multi-tap solution should determine in advance how they will handle the challenges associated with this solution, which include fare inspection and enforcement, fare debt recovery, and overall fare policy. Addressing these items early can help agencies reduce customer confusion, protect revenue, and minimize administrative burdens.

[2] Due to this, discount riders traveling as part of a multi-tap payment cannot receive the full benefits of open loop travel, such as transfers and fare capping. This may generate concerns about an imbalance within the open-loop fare payment experience between full-fare and discount-eligible riders.

A. Inspection & Enforcement

As a multi-tap solution enables travel for multiple people on a single credential, agencies should first confirm with their vendor that their existing open-payment fare inspection devices can support multi-tap verification. Most fare inspection applications merely confirm that the most recent tap was valid and may not be able to check for multiple taps. Updates to the inspection software may be necessary.

In addition, riders in a group may travel on different routes or vehicles after passing through a shared entry point and so may no longer be accompanied by the person holding the credential. To mitigate this, agencies should communicate to riders that groups paying via multiple taps must complete the entire journey together. In addition, in the case that riders in a group do separate, agencies implementing this solution consider updating their inspection protocols, e.g. these riders will incur a fare penalty, to account for being unable to inspect these fares. Agencies should incorporate these updated protocols into inspector training and customer communications before launch.

B. Fare Revenue Risk

As multi-tap open payment has implications for the agency's risk of unrecovered fares, agencies should evaluate how multi-tap functionality interacts with their payment processing configuration and determine whether additional changes are needed to manage fare revenue risk. The mass transit transaction model that governs open-loop transit payment standards includes two core functions: delayed authorization and first ride risk.[3] To prioritize speed, the open-loop payment system quickly checks the validity of a payment card the first time it is tapped, and then confirms whether there are sufficient funds afterwards. This means the first trip a customer takes may later fail to be charged, resulting in unpaid fares (debt) that the agency may not recover.

When a single credential pays for multiple fares at one time, the first-ride risk is the sum of all the first taps, not only the individual cardholder's. If a card has insufficient funds for the total of the fares, then the agency may not be able to recover the funds for any proportion of those rides. If an agency has opted to aggregate fares for settlement, e.g. at the end of each day, then the potential financial exposure is further increased. In this all-or-nothing model, if the card's funds are short of the amount needed to cover the last tap of the group across the entire day, the charge for that entire amount would fail to go through and the agency may be unable to collect any of the fares, even if there was sufficient balance for a portion of them.

On the customer's side, if a card is used to pay for four riders but only has the funds to cover three of them, the card will be blocked for further use until the debt is cleared. This would prevent potentially the entire group from continuing to travel.

The first-ride risk can be minimized by not allowing for group travel on the card's first ever use on the system. For instance, New York MTA's OMNY system permits multi-tap open payment only after the card has first been used for a single traveler, and the system has been able to complete its authorization process

[3] More information about the transit transaction model can be found here: https://www.calitp.org/assets/Cal-ITP.Guide.to.Payment.Processing.pdf

successfully.[4] Agencies should work with their transit payment processor to determine whether similar controls or other risk mitigation measures are available.

C. Fare Policy Complexity

Agencies should establish and communicate clear customer policies and support procedures before introducing multi-tap functionality. The nuance of multi-tap payment's parameters may be difficult for occasional transit users to understand and apply correctly, potentially leading to slower entry/boarding and minimizing operational gains from open-loop payment acceptance.

Multi-tap functionality increases the risk of unintended validator interactions, where a single rider may accidentally trigger multiple charges. This would result in frustration as well as additional refund requests through customer support channels. Agencies should update their policy to address how these requests would be handled. Without any way to confirm whether these charges were intentional, agencies should consider a limit on forgiveness for customers, allowing a refund for the first (or first several) accidental multi-tap but not subsequent ones, with a clear policy to guide customer support teams and refund processes. Also, multi-tap transactions may combine multiple trips into one payment, which could present challenges to customer support for troubleshooting or refunds on a singular trip. Agencies should consider the impact of such an increase in customer support requests associated with this functionality, and if the increased load can be handled by the existing resources.

With multi-tap open payment, it is difficult to create a single fare standard that fits all agency types and operational contexts. There are considerations for implementation if the transit service is access-controlled or distance-based and therefore requires a tap-in and tap-off. In addition, this approach to group travel does not solve every use case, such as groups of more than five people (in the case of a cardholder-plus-four group travel policy). Those additional riders will still require another way to pay. Overall, clear customer communications and well-defined refund policies can help agencies minimize customer confusion and support demands while supporting multi-tap implementation.

[4] https://omny.info/how-omny-works

Appendix

In addition to multi-tap functionality, there are several other options for implementing group travel with open loop payments:

Option 1: Operator Console

This option is only available on buses or other transit services where an operator or attendant is involved in boarding. This approach requires the rider to inform the operator prior to payment of the size of the group and the operator to use the console to manually adjust the fare to be charged by the validator. The driver may have the ability to select a discounted fare type and the number of fares to be charged, depending on the console capabilities. This process implies more fare-related driver-passenger interactions, which many agencies are trying to minimize, and requires additional driver training, creates opportunities for error, and has impacts on the speed of boarding or entry. For agencies without preexisting driver consoles, this option would require procurement of additional equipment and potential integration costs to connect the console with the validator.

Considerations

- This option has similar inspection challenges as discussed in Section 5A, as the inspection application may only be able to validate that a fare was paid, but not the amount or number of riders it covered.
- This option presents a greater revenue risk because the charged amount through the tap is the sum of all the individual fares. With deferred authorization, the full amount would fail to go through even if the rider had funds for some of the fares but not all.
- The implications for fare policy are mixed. With this option, there is a lower risk of accidental taps but still opportunities for human error by the driver. Distance-based fares would require the driver to make further manual adjustments and calculations, increasing complexity and duration of interaction.

Option 2: Validator Selection

This option shifts the customer fare count selection from a separate device to the validator itself. The rider (or the operator) selects the applicable group size on the validator device at the point of entry. This solution may present a design challenge on a relatively small interface and may be prone to user error or misuse. In many cases it would require an update to or replacement of the validator hardware as well. The rider may have the ability to select a discounted fare type and the number of fares to be charged, if the validator screen provides enough room.

Considerations

- This option has similar inspection challenges as discussed in Section 5A, as the inspection application may only be able to validate that a fare was paid, but not the amount or number of riders it covered.
- This option presents a greater revenue risk because the charged amount through the tap is the sum of all the individual fares. With deferred authorization, the full amount would fail to go through even if the rider had funds for some of the fares but not all.

- The implications for fare policy are mixed. With this option, there is a lower risk of accidental taps but still opportunities for human error by the rider. Distance-based fares would very challenging and time-consuming for the rider to manage.

Option 3: App-Based QR Ticket

The rider purchases a group ticket through a mobile app; the ticket is activated and a QR code is scanned at entry for the full group and/or ready for visual inspection. This option provides a more streamlined customer experience and would have minimal impacts on boarding. It would also enable the rider to select discounted fare types. However, the agency would have to procure and maintain a mobile ticketing platform, which may also require additional integration work to connect with the validator, generating additional costs, in particular if the existing validators do not have optical readers.

Considerations

- As the mobile ticket would provide proof of purchase for a group, it would be able to be inspected visually or electronically. The group would still need to travel together for the entire trip.
- There would be little to no fare revenue risk, as mobile ticket purchases operate as a standard retail transaction, which requires real-time authorization.
- The implications for fare policy are mixed. There is no possibility of an accidental purchase, but it relies on the rider to ensure that they are purchasing the correct number of fares and fare category, creating opportunities for human error. As mobile tickets are typically purchased in advance of boarding, agencies would have to determine how they would address riders who purchase a group ticket but then some of the group end up not traveling.

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