A US PAYMENTS FORUM WHITE PAPER

Enhancing Merchant Category Code (MCC) Classification for Mobility Payments: Analysis of Existing MCC Ranges for New Mobility MCCs

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About the U.S. Payments Forum

The U.S. Payments Forum is a cross-industry body that brings stakeholders together on neutral ground to enable efficient, timely and effective implementation of emerging and existing payment technologies. This is achieved through education, guidance and alternative paths to adoption. The Forum is the only non-profit organization whose membership includes the whole payments ecosystem, ensuring that all stakeholders have the opportunity to coordinate, cooperate on and have a voice in the future of the U.S. payments industry. The organization operates within the Secure Technology Alliance, an association that encompasses all aspects of secure digital technologies.

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Table of Contents

1. Introduction

As urban mobility evolves, the payments ecosystem must adjust to the growing use and acceptance of alternative transportation modes. Whether examined individually or within a multi-modal mobility framework, the popularity of micromobility solutions, such as bike and scooter rentals, carsharing services, and electrified transport, is increasing alongside conventional public transit.

This transformation is enhancing urban living standards, expanding access to opportunities, and reducing the environmental footprint of the transportation infrastructure, including carbon emissions, within communities. However, this rise in popularity also brings challenges related to transaction processing, data reporting, and rewards and incentives, all of which rely on precise Merchant Category Code (MCC) classification.

Industry experts from U.S. Payments Forum Electric Vehicle (EV) Charging Open Payments Working Committee and Transit Contactless Open Payments Working Committee analyzed transaction data from demonstration programs conducted in California and gathered industry feedback to identify critical issues related to MCCs that affect payment networks, transit operators, mobility providers, corporate expense tracking, and government programs.

These issues lead to inefficiencies throughout the payments ecosystem and missed opportunities, impacting interchange rates, reporting accuracy, fraud prevention, spending restrictions, and government incentives for sustainable mobility, such as those provided by the California Integrated Travel Project (Cal-ITP)[1], a key contributor to this analysis.

The group discovered two main issues:

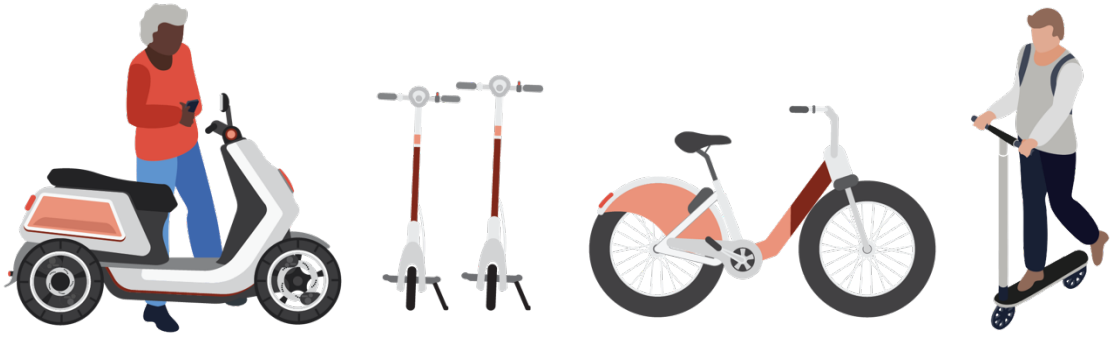
1. **Accurate and sufficiently distinguishable MCCs exist**, but they can be interpreted differently among payment service providers and merchants, such as those for EV charging and public transportation.
2. **Emerging mobility modes lack a distinguishable MCC**, despite their rapid growth, and are classified under a more generic code.

This white paper documents opportunities identified by the U.S. Payments Forum for MCC additions that would distinguish new micromobility solutions from conventional transit, as well as existing approaches that can be implemented to more clearly categorize and track micromobility transactions as the payments and transit industries works toward new standardized MCCs.[2] These opportunities can help to provide more transparency on journey types and deliver more clarity to benefits program administrators, payment processors, and end users.

[1] "Universal Equity Zero Emission Vehicle Charging Card: Project Demonstration Report," Cal-ITP, September 30, 2023, https://www.calitp.org/assets/Cal-ITP.Universal.Equity.Zero.Emission.Vehicle.Charging.Card.Report.pdf

[2] *Editor's note*: Although the U.S. Payments Forum does not fulfill requests for new MCCs, its members have collaboratively developed a proposal for the Accredited Standards Committee X9, representing the United States in the International Organization for Standardization (ISO). Please contact this committee for additional information.

2. Shared Micromobility Classification



According to market.us, "the global micromobility market size is estimated to reach USD 11.9 billion by 2034, from USD 3.6 billion in 2024, growing at a CAGR of 12.7% during 2025–2034. Micromobility refers to small, lightweight vehicles, such as e-scooters, bicycles, and e-bikes, used for short trips. These vehicles are often shared or rented, providing an efficient and eco-friendly solution for urban transportation and last-mile connectivity. The micromobility market encompasses the production, distribution, and operation of small electric or manual vehicles. It serves city residents, tourists, and businesses seeking affordable and sustainable travel options for short distances."[3]

The current MCC structure has a designated range for transportation services (MCC 4000–4799). Within this range, traditional transit modes are covered by specific codes (e.g., 4111 for local commuter transport, 4112 for passenger railways).

However, emerging micromobility services, such as shared e-scooter services or bike rentals, often lack a dedicated MCC and are usually categorized under general codes. Examined data suggests they fall under an existing miscellaneous transportation code, such as 7999 (recreational services not elsewhere classified). This classification makes it difficult for payment systems and the surrounding ecosystem to accurately identify micromobility transactions.

The absence of dedicated MCCs for these emerging mobility services can result in unnecessary declines and ineligibility for special interchange pricing. It can also limit the ability of financial institutions to offer relevant incentives, disrupts spending analytics, and undermine the effectiveness of public subsidy programs, which often rely on MCCs.

A new MCC specifically for shared micromobility can have a positive impact, allowing stakeholders to target these modes with relevant offerings and improve the accuracy of transaction data.

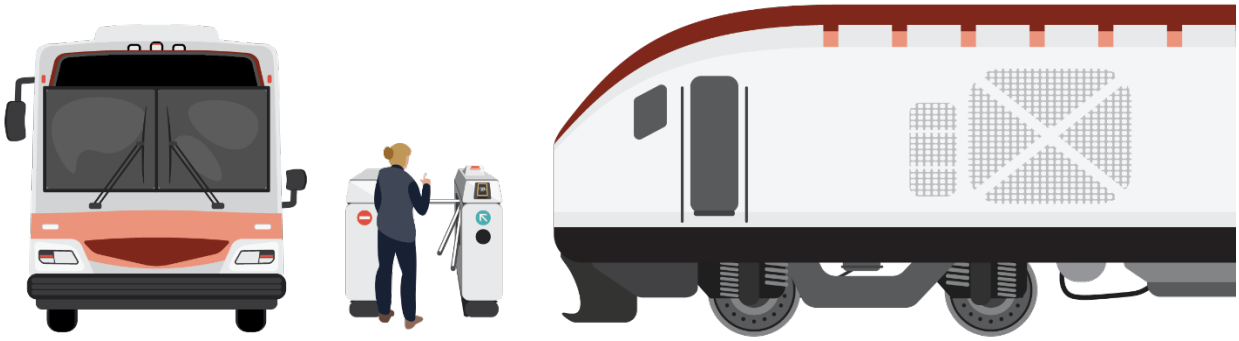
The new MCC could logically reside in the 4000 series along with other transit codes to align with industry conventions and ensure issuers recognize it as a transportation expense. For example, MCC 4113 or 4142 (currently unused) could be assigned to "Shared Micromobility Services," covering docked and dockless shared scooter and bike rentals, as well as additional future last-mile sustainable modes.

[3] "Global Micro-Mobility Market Size, Share, Growth Analysis By Vehicle Type (Electric Scooters, Electric Bikes, Kick Scooters, E-Skateboards, Electric Mopeds), By Service Type (Shared Services, Owned Services), By End-User (Commuters, Tourists, Delivery Services), By Region and Companies - Industry Segment Outlook, Market Assessment, Competition Scenario, Statistics, Trends and Forecast 2025-2034," market.us, January 2025, https://market.us/report/micro-mobility-market/#:~:text=Report%20Overview,bikes%20used%20for%20short%20trips.

Placing the code adjacent to existing transit MCCs would fit the payment processing logic (since 41xx codes already denote local transportation) and provide clarity.

This dedicated MCC could differentiate micromobility transactions from other transit or longer-term rental purchases, enabling more accurate tracking and eligibility for transit subsidies or rewards. It may also encourage merchants and acquirers to discontinue use of generic codes for these services, improving data precision. In summary, defining a new MCC in the transportation range, particularly in the 4100–4199 block, will help fill the classification gap for micromobility transactions and align with the established MCC taxonomy.

3. MCCs in Public Transportation



Although the existing MCCs for public transportation are precise and detailed, they may be interpreted in various ways.

For example, MCC 4111 ("Local and Suburban Commuter Passenger Transportation, including Ferries") is a broad category that often includes both bus and train fares. Transit merchants can engage with their acquirers for assistance with setting up merchant accounts and MCCs for payment processing.

In addition to ensuring the correct MCC is used, stakeholders can consider leveraging existing transaction data enhancements to enrich the transaction message, including the following:

- **Leverage transaction data fields**. Modern payment message formats allow sending additional data points and support private fields that can carry extra information about the purchase. Transit operators could include a service descriptor (e.g., "BUS" or "RAIL") or route/station identifier in an addendum field of the authorization message.

  For example, some networks already require contactless transit transactions in MCC 4111/4131 to include a list of taps or a mapping file in the authorization metadata. Building on this capability, acquirers could pass a code in the transaction that signifies the mode of transport. This data would travel with the transaction and could be stored by issuers or processors for reporting.

  Clear MCC differentiation can help to enhance fraud prevention and enable more efficient processing of transactions. It also supports better segmentation of merchant data, improving partner analytics and loyalty program targeting[4]. Although there may be some drawbacks to implementing new MCCs, the benefits can outweigh them depending on the specific situation.

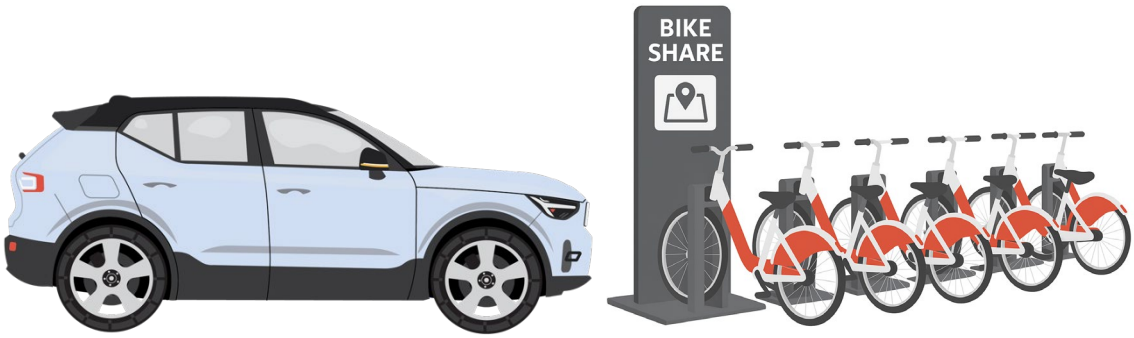
- **Geolocation cues**. Another method to distinguish transit mode is using the terminal location or identifier. Bus validators are mobile and scattered along routes, whereas train fare gates are fixed at station locations. If the acquiring system records geolocation or a terminal ID for each fare transaction, those could be cross-referenced with known bus routes or train station locations.

[4] Mastercard Quick reference Booklet, Merchant Edition, 16 April 2024, https://www.mastercard.us/content/dam/public/mastercardcom/na/global-site/documents/quick-reference-booklet-merchant.pdf

For example, a tap at a train station turnstile could be identified by the station's GPS coordinates or a station code, whereas bus and rail onboard readers would have coordinates moving along a route. By analyzing this information (either in real time or through back-end processing), a given MCC 4111 transaction could be classified as either a bus ride or a train ride. While payment networks do not natively categorize by geolocation, transit agencies or third-party analytics can use this method to retroactively tag transactions by mode for reporting or subsidy purposes.

Enhancing the transaction with additional data may interest parties looking for greater granularity in transaction data. These measures can boost the transparency of transit payments, ultimately enabling transit programs and issuers to implement mode-specific rewards or policies (for example, offering points for train rides vs. bus rides) with improved accuracy.

4. Transportation Network Companies, Ridesharing, and Carsharing Service Classification



Distinguishing ride-hailing services (e.g., transportation network companies (TNCs), such as Uber or Lyft) from carsharing and ridesharing is another important clarification for mobility payments.

Carsharing is a transportation service allowing short-term vehicle rentals by individuals or businesses, offering an alternative to car ownership that is flexible and cost-effective. In contrast, ridesharing services offer a seat in a personal vehicle for a shared ride. According to Verified Market Research, "the global carsharing market was valued at approximately USD 55.59 billion in 2023 and is projected to reach USD 174.35 billion by 2031."[5]

At present, ride-hailing TNCs generally fall under MCC 4121 ("Taxicabs and Limousines"). This classification encompasses app-based ride-hailing services, conventional taxis, and rideshare options, such as the European market leader BlaBlaCar.

Carsharing providers are generally categorized under the broader car rental category. In fact, MCCs 3300–3499 are reserved for car rental agencies and cover "any business that offers temporary use of cars." This means a short hourly Zipcar rental is likely processed under the same family of codes as a multi-day rental from Hertz or Avis. Many large rental companies even have their own specific MCC within that range (e.g., Hertz is 3357, Budget is 3366, Avis is 3389, Enterprise is 3405), but these MCCs are all simply recognized by issuers as "car rental" charges.

As a result, carsharing and ridesharing transactions are indistinguishable from traditional car rentals in payment data, as they share the same MCC range and often use the parent rental company's code.

This overlap complicates promoting one over the other in the context of encouraging sustainable mobility options that reduce carbon emissions and road congestion. Furthermore, differentiating between these services is a crucial step toward future-proofing the distribution of subsidies to specific communities, as these programs are typically designed to favor eco-friendly choices.

[5] "Global Car Sharing Market Size By Business Models (Round-Trip Car Sharing, One-Way Car Sharing, Peer-to-Peer (P2P) Car Sharing, Corporate Car Sharing), By Vehicle Type (Fuel-Based, Electric Automobiles (EVs), Premium Or Luxury Cars, Shared Mobility Fleets), By Geographic Scope And Forecast," December 2024, Verified Market Research, https://www.verifiedmarketresearch.com/product/car-sharing-market/.

For example, as electronic benefits transfer (EBT) cards transition to EMV technology, these mobility modes will be able to be included in programs similar to the Supplemental Nutrition Assistance Program (SNAP), or the Temporary Assistance for Needy Families (TANF), if they have a distinguishable MCC.

Opportunities to potentially improve clarity among ride-hailing, carsharing, and ridesharing in payment processing include the following:

- **Consider a new MCC for carsharing and ridesharing**. Creating a dedicated MCC for short-term carsharing and ridesharing services would provide immediate differentiation from generic car rentals. This new code could reside in the 3350–3499 range (alongside rental car codes) or in the 7500 range (historically used for auto rental/leasing services) to align with industry logic. A distinct code labeled for "Short-Term Auto Sharing Services" (or similar name) would allow issuers and transit benefit programs to recognize carsharing as its own category, separate from traditional rentals. This might be especially useful because carsharing and ridesharing often serve an urban mobility function that is different from a standard vacation car rental.
- **Utilize descriptors and merchant IDs**. In the absence of a new MCC, acquirers and payment processors can still achieve differentiation by using unique merchant identifiers or descriptors for carsharing vs. rental services. For example, a carsharing company that is part of a larger rental car brand could ensure its transactions carry a distinct merchant name (e.g., "Zipcar" instead of just "Avis Budget Group") and perhaps a distinct merchant ID in the acquiring system. Issuers often have access to the merchant name/ID and could, as a result, distinguish Zipcar from Avis even if the MCC is the same. While this is not a standardized MCC solution, it can help reward programs or corporate expense systems apply different rules (e.g., treating Zipcar as an everyday transportation expense vs. a travel rental) by maintaining an internal list of known carsharing merchants.
- **Differentiate by transaction characteristics**. Another existing and complementary method is to consider the transaction attributes. Carsharing rentals typically have shorter durations and different pricing models (hourly rates, membership fees) than traditional rentals. Processors could flag transactions that fit the profile (e.g., lower dollar amounts that might indicate hourly charges or recurring membership billing for a car-sharing service) and categorize them separately using business intelligence. For example, a $10–$20 charge with a known carshare merchant could be internally tagged as "carsharing," while a $300 charge with a rental agency is "car rental." This approach requires back-end data analysis and is not foolproof, but it can augment transaction clarity, especially for reporting and research purposes.
- **Maintain TNCs under 4121**. For ride-hailing services like Uber and Lyft, the current practice is to use MCC 4121, which we believe is logical, as it categorizes them with taxi and limousine services. This approach also helps to ensure that credit cards and transit benefits that cover taxis also cover Uber and Lyft by default.

Of the opportunities noted above, a new MCC for carsharing and ridesharing would likely offer the most precise solution, although it would require industry coordination.

In the meantime, using merchant identifiers and analyzing transaction details are effective tactics. Distinguishing between TNCs and carsharing benefits stakeholders: consumers gain transparency, issuers can apply rewards effectively, and mobility programs can tailor incentives, such as promoting carsharing over personal vehicle use without confusing it with traditional rentals.

Clear classification ultimately helps to reduce confusion and ensure proper recognition of transportation modes in the payments ecosystem.

5. EV Charging and Parking

As carsharing services transition to electric fleets, MCC 5552 – Electric Vehicle (EV) Charging – was examined. MCC 5552 for EV charging has been widely adopted. However, cashback and rewards programs, along with specific corporate card and mobility subsidy initiatives aiming to incorporate the MCC for EV charging, may also need to include MCC 7523 for parking. Many publicly available chargers in the U.S. are located in parking lots and garages, and payment networks permit these merchants to process EV charging transactions using the MCC related to their primary business, parking. Not including the MCC for parking could lead to missed rewards or even declined transactions.

6. Conclusions

As noted, opportunities for transit agencies, micromobility providers, acquirers, and other mobility payment stakeholders to help improve the precision of data and data quality associated with micromobility transactions include the following:

- **Use the most accurate MCC available**. Merchants can improve precision by opting for the MCC that best fits their service. If a dedicated MCC exists, it should be applied to all relevant transactions. Inconsistent or incorrect MCC usage – such as classifying an electric scooter rental under a generic retail code – undermines data quality. In general, the payment networks emphasize that inaccurate MCC assignments can lead to data and eligibility issues. Using the most accurate MCC helps ensure purchases are recognized appropriately.
- **Advocate for new MCCs as needed**. Where no suitable MCC exists for an emerging mobility mode, industry stakeholders can propose new codes. As discussed, micromobility and carsharing are prime candidates for new MCC definitions. Agencies and coalitions (such as transit associations or mobility alliances) can work with payment networks and ISO's MCC Maintenance Agency to propose additions. While payment networks have noted that transaction volumes for new transportation modes are still growing, documenting the use cases and potential benefits (like enabling targeted rewards or subsidies) can build the case for adoption sooner. In the meantime, clearly communicate to processors which existing MCC is the "best fit," so that there is consistency across the industry until a new code is approved.
- **Enhance transaction messages with supplementary data**. Where feasible, acquirers and merchants can take advantage of available fields in the payment transaction to send additional details about mobility purchases. Even if not all issuers use this data, it can be invaluable for those who do and for back-end reconciliation. Additionally, payment message standards (ISO 8583 or network-specific formats) often have private-use fields or addendum data segments. For example, Mastercard requires transit aggregators to include a list of rides/taps in a field for aggregated fare charges, indicating that such custom data can be transmitted. By populating a field with a mode indicator or vehicle identifier, transit agencies enable a richer dataset. Acquirers may consider updating their systems to capture and pass through these extra fields, and issuers could eventually parse them to offer more detailed transaction descriptions to customers (e.g., "City Bus Fare" instead of just "Transit 4111").
- **Consider developing product category codes**. Gas stations provide a useful precedent for how product-level or product category codes can enhance transaction details and reduce processing costs. When a customer pays at the pump, the payment system often distinguishes between fuel and non-fuel purchases, such as snacks or car washes, by using product codes within the transaction message. This allows fuel purchases to benefit from lower interchange rates due to their essential, regulated nature, while still enabling merchants to track and manage ancillary sales separately. Adopting a similar approach in transit or mobility, where product category codes could identify fare types (e.g., adult fare, discount fare, transfer) or differentiate between transportation modes (e.g., bus vs. rail), could help in determining applicable interchange fees, improve data transparency, and better support public program compliance.

- **Collaborate and educate**. Finally, all parties – from transit authorities to payment processors – should consider collaborating on MCC improvements. The U.S. Payments Forum serves as the ideal platform for collaboration on these issues and is open to outreach following the release of this white paper. Providing educational guidance about MCC selection in the mobility sector will help new services start off on the right foot. Payment networks have indicated that while they care about MCC data quality, they often see inconsistent implementation in new sectors. Proactive education and checks can improve compliance.

By pursuing the opportunities described in this paper and others, mobility payment stakeholders can improve the transparency, granularity and accuracy of transaction classification, thereby enabling better analytics, targeted customer rewards, and smoother integration with programs like commuter benefits.

In turn, this enhanced clarity can benefit program administrators (for policy and subsidy enforcement), payment processors (for fraud and risk controls), and end users (who see clear descriptions and appropriate rewards for their mobility spending). It can also help to future-proof mobility payments as new transport modes emerge and ensure that the payments industry keeps pace with innovation in the transportation sector.

7. Appendix I: Additional Transaction Message Data Examples

ADDITIONAL TRANSACTION MESSAGE DATA EXAMPLES	
EXAMPLES OF ADDITIONAL DATA ELEMENTS VARY BY NETWORK AND ISSUER	Customer reference number
	Shipping zip code
	Tax amount
	Commodity codes
	Product codes
	Descriptions
	Quantities
	Unit of measure
	Unit prices
	Discount rates and amounts
	Tax rates and amounts
	Duty and freight amount

8. Appendix II: MCC Category Description

MCC	CATEGORY	DESCRIPTION
4111	Local/Suburban Commuter Passenger Transportation	Municipal transit systems, ferries, and local commuter services.
4112	Passenger Railways	Intercity and regional rail services.
4121	Taxicabs and Limousines	Traditional taxi services and limousine hires.
4131	Bus Lines	Scheduled bus services and chartered bus operations.
4784	Bridge and Road Fees, Tolls	Toll payments on roads and bridges.
4789	Transportation Services Not Elsewhere Classified	Emerging mobility services like ride-hailing platforms (e.g., Uber, Lyft) but are not widely applied
7512	Automobile Rental Agency	Traditional car rental companies as well as car-sharing services like GetGo and BlueSG.
7523	Automobile Parking Lots and Garages	Parking services and garage facilities.
5552	Electric vehicle (EV) charging	EV charging

9. Legal Notice

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