

Future Fleet

Whitepaper

How fleet-card
innovation is
changing the
industry



Introduction

An estimated [10% of B2B card payments](#) in the US are made on behalf of fleets. In 2023 alone, a staggering \$93.5 billion was spent on fleet cards, according to a [Mercator Advisory Group report](#). Yet a meaningful segment of the fleet market—smaller, lighter fleets and future-forward larger fleets—remains underserved by traditional fleet cards. Next-gen fleet card providers partnering with developer-first issuer processors can capitalize on the growing opportunity.

Historically, incumbent fleet card providers have delivered on a narrow value proposition: cheaper gas, basic fraud controls, and spend tracking. Fleet card providers negotiate discounts and rebates for their cardholders at a proprietary, “closed loop” network of fueling stations in exchange for sending customers to those gas station brands.

However, fleets today face numerous challenges that traditional fleet cards don't effectively address. Rising fuel costs, persistent card fraud, driver shortages, inflation, and pressure to convert to alternative fuels and EVs are all driving higher costs.

As a result, demand is steadily rising for smarter fleet cards that can more effectively help fleet managers control abuse and fraud in spend, manage expenses, and integrate flexibly with spend management, telematics, and back-office systems. Meanwhile, innovations from the major card networks are enabling card issuers to generate more value for fleet managers than ever before.

A new wave of fleet card providers is seizing this opportunity. The new players are partnering with developer-first issuer processors to offer fleet managers consumer-grade app-first experiences, enhanced data, innovative fraud controls, and wider card acceptance. These offerings also include novel spend management features based on integrations with fleet management, telematics, and back-office systems.

In this white paper, we'll discuss why the fleet card market is growing and explore important areas of innovation.

Smaller, Lighter Fleets Driving Higher Demand

A surge in demand for fleet cards is emerging from an unexpected source: smaller, lighter commercial fleets.

Commercial fleets are the backbone of logistics in the United States, encompassing over 40 million vehicles and millions of drivers, from long-haul truckers to pest-control franchises.

Traditionally, fleet card products have focused on fleets dominated by heavy-duty vehicles, which consume more fuel per mile than lighter commercial vehicles. However, big tractor-trailers represent only a small fraction of the fleet industry—just 9% of US fleet vehicles are Class 8 heavy-duty vehicles like tractor-trailers.

SMB fleets with two to 24 vehicles accounted for 25% of the fleet market globally, spending between \$300B and \$400B annually on fuel and other on-the-road purchases in 2022, according to data in a KNI Research study [cited by Visa](#).

Despite this, fleet card adoption remains skewed toward larger fleets. According to the same study, adoption rates drop significantly with fleet size:

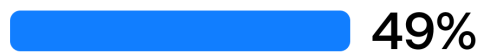
Fleet card adoption falls steeply among smaller fleets

Percent of fleet card adoption by fleet size

100+ vehicles



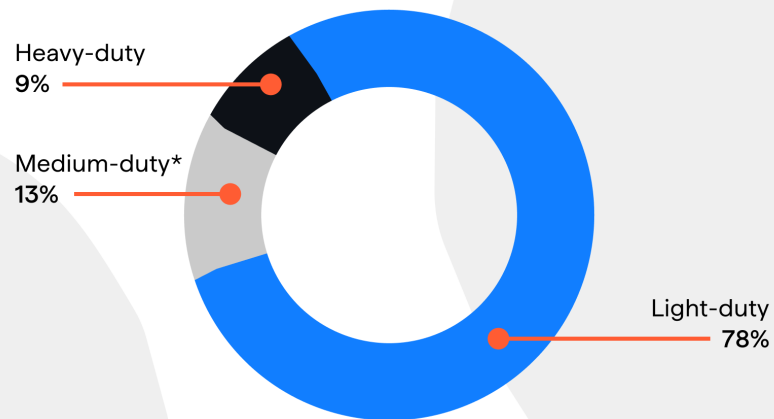
25-99 vehicles



2-24 vehicles



Commercial fleets in US are dominated by lighter vehicles



*Medium-duty vehicles include medium heavy-duty Class 7 vehicles.
Source: US Census via Javelin Research.

Challenges for Smaller Fleets

Traditional, closed-loop fleet cards often fall short for smaller fleets.

- Savings from gas discounts don't justify the fee structures of traditional fleet cards or the inconvenience of being limited to a closed network of proprietary gas stations.
- Traditional fleet cards don't always support expenses related to EV charging, lodging, food, and equipment.
- The complex application process and slow approval times for new cardholders add to the administrative burden on small fleets, which often have limited back-office resources and fast-changing driver needs.

As a result, smaller fleets today still tend to rely on non-specialized commercial cards or require drivers to pay out of pocket and seek reimbursement manually.

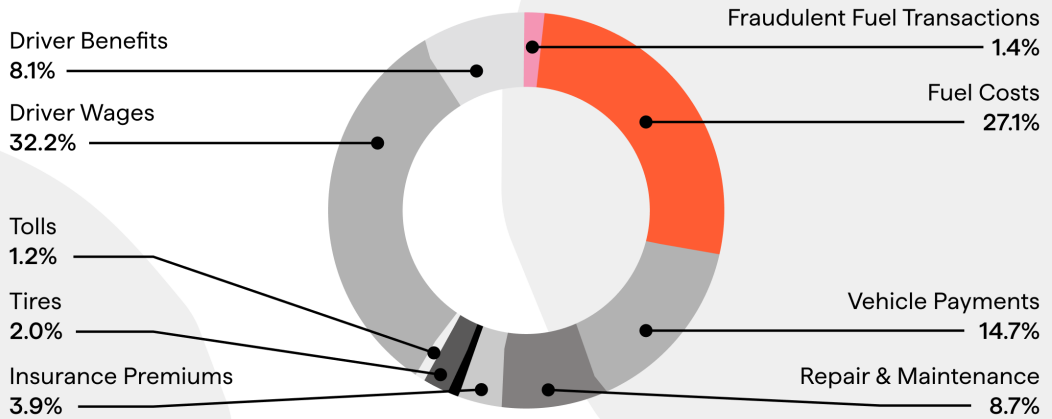
Rising Fuel Costs, Fraud, and Inflexibility

Fleets of all sizes (especially smaller, lighter fleets) experience pain points that traditional fleet card products have not fully addressed.

- Rising Fuel Costs:** Rising fuel costs remain an existential issue for fleets. Fuel costs have soared 59% in the last three years for which data is available, according to the American Transportation Research Institute (ATRI), surpassing increases in any other expense category. Repairs and maintenance costs have also jumped over 30%. In 2024, fuel costs are projected to consume 27% of fleet revenue, the highest share recorded, according to FreightWaves' National Truckload Index (NTI) spot measurement.
- Persistent Fraud:** Fraud in fuel transactions is another significant driver of fleet losses. On average, fleets report that 5% of fuel transactions are fraudulent, leading to substantial unnecessary costs. For instance, a 200-vehicle fleet could incur \$500,000 in excess fuel expenses annually due to fraud, as highlighted by a report from [Motive and Freightwaves](#). Traditional fleet cards can make it difficult for fleet managers to assign cards to drivers—anecdotes in trucking abound of stacks of plastic fuel cards in an office, with only basic tracking of who they go to, and how they are used. Instances of unauthorized purchases, such as drivers using cards for personal vehicles or falling victim to card skimming at gas stations, are rampant.

Fuel costs are an existential issue for fleets of any size.

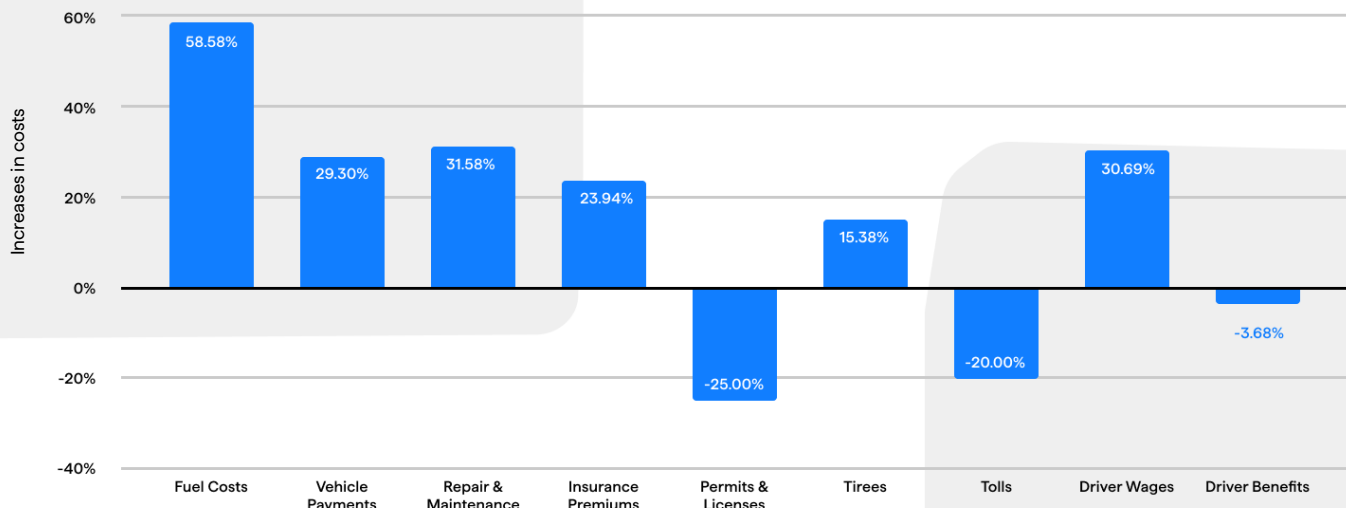
Fuel represents nearly one-third of costs for trucking



Most recent American Trucking Research Institute report (June 2023)

Trucking 3-year cost changes

Based on Average Cost Per Mile (ATRI 2023)



American Trucking Research Institute (June 2023)

Rising Fuel Costs, Fraud, and Inflexibility

- **Limitations of Closed Loop Gas Station Networks:** Traditional, closed-loop fleet cards limit drivers to specific fueling stations, causing inconvenience and inefficiency. For drivers in remote locations or those running low on fuel, finding compatible stations can be time-consuming and wasteful—often costing more fuel than the discount. Additionally, opaque discount and rebate structures leave fleet managers uncertain about actual savings as fuel prices fluctuate.
- **Lack of Flexibility in Spend:** Traditional fleet fuel cards haven't always supported expenses beyond fuel, such as repairs, maintenance, EV charging, or lodging. Even Fleetcor, a major player in the fleet card industry, recognized this gap and launched a ["Beyond Fuel" initiative](#) in 2015 to enable non-fuel spend on their cards.
- **Limited Integrations and Customization:** Many traditional fleet card programs can't seamlessly or flexibly integrate with third-party systems like telematics, fleet management software, and accounting systems. This has hampered fleet managers' ability to customize card features and fully leverage data for operational and back-office efficiency.
- **Limited Security and Spend-Control Features:** Traditional fuel card providers have lagged in adopting advanced security features like EMV chip technology, relying on the fact that their closed-loop cards could only be used for fuel at select locations. Purchase alert, spend control, and fraud-warning features were often limited, and few offered granular, real-time visibility into spend.

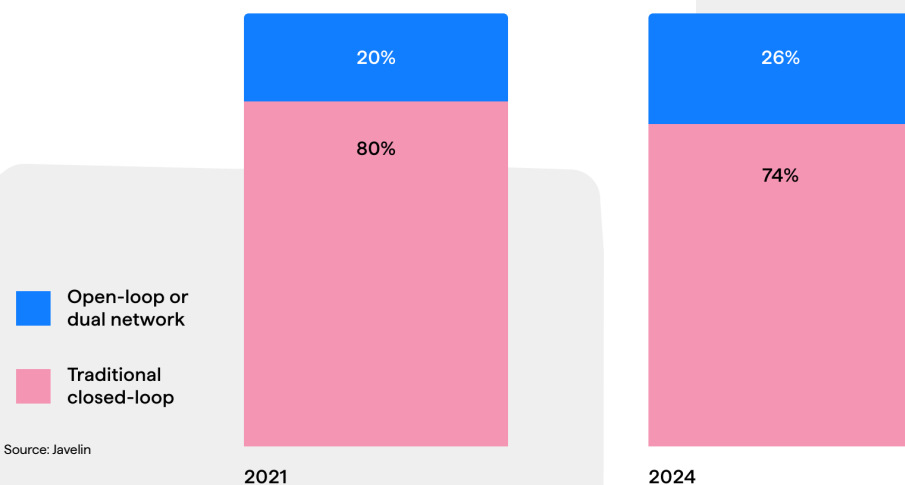
Emerging Trends Shaping Fleet Cards

Emerging trends in fleet card technology, driven by increasing demand from market players, are reshaping the fleet card industry.

- **Shift in Demand from Closed-Loop to Open-Loop Cards:** Fleets are increasingly adopting open-loop cards that run on Mastercard and Visa networks, breaking away from the proprietary “closed loop” fuel card networks. These open-loop offerings provide enhanced fuel pump data, like Level 2 and Level 3 data, previously exclusive to closed-loop incumbents. Today, only 19% of fleet cards are “open loop” offerings that run on Mastercard or Visa’s networks, with an additional 7% being “dual network” cards that also work on one of the “closed loop” proprietary fueling networks or are compatible with two closed-loop networks, [according to Javelin Research](#). In Javelin’s words, open-loop cards are now the most dynamic segment of the fleet card market.
- **Advanced Anti-Fraud Systems for Open-Loop Cards:** Modern anti-fraud systems have “caught up,” mitigating the risks associated with open-loop cards. EMV chips, PIN authentication, SMS prompts, and synchronization with fuel pump data have enhanced the security of open-loop cards, making them more appealing to managers of smaller fleets.
- **Network Innovations Increasing Support for Fleet Payments:** Historically, fleet managers hesitated to give Mastercard or Visa cards to drivers because they could be used anywhere, and for any item. However, network innovations have introduced spend, data, and fraud control capabilities suitable for fleet needs. Since the mid-2010s, Mastercard and Visa have increased support for B2B payments, including fleet transactions, by adding support for procurement-style purchasing, enhanced data, and improved fraud control measures.
- **Demand for Data Visibility and Expense Management Tools:** Demand is rising for fleet cards that offer innovative features for data visibility and expense management tools as well as new payment experiences, fintech add-ons, and user-friendly apps. Enhanced vehicle-data access through modern telematics systems connected to APIs particularly appeal to smaller, lighter fleets.
- **Opportunity to Offer Adjacent Financial Services:** Cash-strapped fleets have diverse financial needs. Using fleet cards as a wedge, providers can expand their offerings to include invoice factoring, faster funds access, and banking services, helping fleet managers with cash flow and cost management.

Fleet cards with wider acceptance gain market share

Dual network cards run on a closed-loop and open-loop network, e.g. Mastercard or Visa, or multiple closed-loop networks



Source: Javelin

The Role of Enhanced Data

Over the years, the major payment card networks have enabled fleet card programs to support enhanced data—such as L2 and L3 data—without building their own infrastructure or striking their own deals with gas station franchises.

Enhanced data has enabled fleet managers to track and analyze fuel purchases precisely, detect and identify fraudulent activities, and optimize driver efficiency. It has also enabled more accurate reporting and compliance with tax regulations.

- Level 2 data, typically included in the original online authorization, includes information such as tax amounts, customer codes, and merchant details.
- Level 3 data, which is line-item detail information received post-authorization, includes product descriptions, quantities, and prices. This level of data granularity enables enhanced reporting and analytics capabilities.

In the fleet context, typical enhanced data elements include:

Level 2 Data	Level 3 Data
Level 1 data elements, plus:	Level 1 + 2 data elements, plus:
Sales tax amount	Service type
Sales tax indicator	Net fuel price
Purchase ID	Non-fuel gross / net price
Purchase ID format	Item discount amount
Vehicle or driver ID number (customer code)	Item description
Odometer reading	Item commodity code
Fuel type	Item unit cost
Fuel quantity	Item quantity
Fuel unit of measure	Item unit of measure
	Item total

Card Innovations from New Contenders

Many startups are partnering with modern issuer processors to launch branded open-loop fleet card products that offer new types of user experiences and product innovations.

- **Enhanced Security and User-Friendliness:** One innovation involves using mobile apps to generate unique codes for drivers to present to cashiers, who enter the code into an online system to close the validation loop. This simple process is driver-friendly and makes it extremely difficult for fraudulent transactions to take place.
- **Machine-to-Machine (M2M) “Vehicle Payment” Systems:** Another innovation is the creation of machine-to-machine (M2M) “vehicle payment” systems that eliminate physical plastic, and don’t require drivers to identify themselves. Drivers simply open an app, input the pump number, and the system uses vehicle data, GPS, and M2M technology to validate the transaction, with cardless payments handled by the company and its payment partners on the back end. This payment system seeks to secure payments without inconveniencing drivers.
- **Integration with Software Bundles:** New entrants have also integrated fleet cards into software bundles, either to complement fleet-management suites or to streamline back-office operations such as payroll, expense management, and factoring.
- **Beyond Fuel Cards:** Some companies have rolled out products anchored on, but not limited to, fuel cards. These offerings can include driver payroll products and invoice-factoring services, allowing fleets to receive funds in advance against accounts receivable—meeting financial needs beyond fuel costs.
- **Expense Management Products:** Other startups are developing expense management products specifically designed for fleets. With their fleet card anchor product, they focus on building granular transaction dashboards and providing detailed data and insights that traditional card products have lacked.
- **Integration with Fleet Management Products:** To differentiate their offerings, some companies are integrating fleet cards with their other fleet-management products. For example, by pairing vehicle tracking and telematics with detailed fuel-spending data, fleet managers can better identify and address fuel-wasting behaviors like idling or hard acceleration. Real-time fraud alerts, delivered when suspicious activity occurs, are another notable feature.

Increasingly, inexpensive fuel stops are only a small part of the value proposition. These innovative solutions provide a comprehensive suite of financial and operational management tools, meeting the diverse needs of fleets of all sizes.

Embedding Finance with Next-Gen Fleet Cards

Just as traditional fleet cards arose in the 1980s to leverage payment card technology for the industry, today's fleet-industry specialists are primed to seize the opportunity to expand from next-gen payment card products into adjacent opportunities, including payroll, business lending, billing, driver-management, and more.

Fuel cards are already serving as a lynchpin for broader payroll, factoring, and full-service fleet management products, indicating a race to become an all-in-one financial technology provider for fleets. These offerings arm fleet managers with tools to control costs in the field, positioning them to expand and fulfill other back-office needs.

The analogy to well-known expense platforms like Brex and Ramp is useful here. These products have amassed large user bases among small- and medium-sized businesses by offering flexible and easy-to-use corporate cards. However, that was just the first step. Both companies are increasingly woven into all aspects of their customers' financial management, which helps them fulfill more needs and offer more value, ultimately boosting Average Revenue Per User (ARPU).

Similar players could emerge in the fleet industry. Fleet businesses' idiosyncrasies—mobile workforces, large in-the-field expenditures, and the dominance of vehicles in the cost structure—require financial products tailored to their needs.



Future-Proof Your Fleet with Lithic

The fleet card industry is undergoing a transformative shift driven by emerging technologies, changing fleet dynamics, and evolving market needs.

Fleet card providers can meet the evolving needs of fleet managers and businesses by prioritizing data visibility, customization, and flexibility—and by working with a future-forward issuer processing partner like Lithic.

- **Flexible Back-Office Integrations:** Future-proof fleet card programs require deep integration into customers' back-office workflows and high data visibility. Lithic has achieved this by providing structured yet unrestricted data access, allowing for granular cost management, fleet-specific fraud controls, and an improved driver experience.
- **Access to Network Innovations:** Issuer processors should also demonstrate their ability to quickly pass on the latest upgrades from Mastercard and Visa to their customers, and support enhanced data with well-documented API or webhooks-based access. With its direct integrations into Mastercard and Visa, Lithic is well-positioned to ensure fleet card providers have access to the latest network innovations—without third-party dependencies.
- **Customized Decisioning vs. One Size Fits All:** Lithic's Auth Stream Access (ASA) allows fleet card providers to apply fully customized decisioning logic around transaction approval, ensuring a tailored approach to fighting fraud and excess spend for each fleet business.
- **Real-Time Transaction Visibility and Controls vs. Latency and Delayed Data:** Lithic supports real-time alert transaction monitoring and fraud alerts, which can integrate directly into any issuer stack.
- **Enhanced Fuel-Pump Data vs. Basic Level 1 Data:** Lithic can pass enhanced data, including Level 2 and Level 3 data, which enables expense management applications such as granular control of fleet costs by card, driver, product category, and/or vehicle.
- **Flexible Physical Card Profiles vs. Static Physical Cards:** Lithic makes it easy for companies to issue various card types via API, including fuel-only, fuel and maintenance, or fleet cards with no purchase restrictions. All cards can be further enabled to prompt for Driver ID and odometer reading to further limit fraud.

Building a fleet card program?

Reach out to Lithic at
lithic.com/contact

