Whitepaper

Beyond the dashboard: Creating the next gen of auto finance

Unlocking connected data to fuel adaptive, customer-centric lending

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Executive summary

The auto finance industry stands at a critical juncture. Record-high loan delinquencies, rising interest rates and the accelerating adoption of electric vehicles are placing unprecedented pressure on traditional lending models. While financial institutions have historically relied on static loan structures and generalized credit scores, these legacy approaches often fail to address changing economic conditions, technological advancements and shifting consumer expectations.

Today, the modern connected vehicle generates substantial data per hour – some estimates suggest 25 gigabytes or more. This creates a significant but largely untapped resource for financial institutions. By harnessing real-time vehicle intelligence, lenders can transition from static, reactive models to dynamic, adaptive and customer-centric financing relationships.

This white paper explores the hidden data revolution in automotive financing. Read on to learn how connected vehicle data can address current economic challenges, the market forces driving this transformation, and the strategic opportunities available to lenders who embrace a data-driven approach.

The auto finance industry is at a crossroads

Economic headwinds are squeezing consumers and lenders alike. According to industry data, the 60-day plus delinquency rate in early 2025 reached levels exceeding those seen during the Great Recession, while average monthly payments for new cars have risen above $750.

Simultaneously, electric vehicle adoption is reshaping how consumers acquire and finance transportation. Electric vehicles often rely on lease-based financing due to consumer concerns about battery longevity, technology obsolescence and uncertain resale values.

These trends expose a fundamental vulnerability in current financing structures. Traditional static loan models lack the flexibility to respond to fast-changing conditions. Whether facing economic volatility, new technology or shifting consumer expectations, auto finance leaders are under immense pressure to explore alternative approaches to auto loan pricing and management.

The hidden data revolution

Every connected vehicle operates as a mobile sensor array. Today, vehicles continuously monitor a wide range of data points:

- **Engine performance metrics** including oil temperature, fuel efficiency, emission levels and mechanical stress indicators.
- **Usage patterns** detailing mileage accumulation, driving behaviors, route preferences and utilization frequency.
- **Environmental conditions** such as weather exposure, terrain challenges and operating temperature ranges.
- **Maintenance indicators** tracking component wear patterns, service requirements and failure predictions.
- **Security status monitoring** through location tracking, theft prevention and unauthorized usage detection (subject to applicable privacy laws and consumer consent requirements).

Despite this wealth of intelligence, traditional auto finance largely treats these data streams as irrelevant. Historically, lenders set loan terms at origination based on actuarial tables and credit scores. These terms then remain static, regardless of actual vehicle usage or maintenance activity. This approach fundamentally misaligns with the reality of auto ownership today.

We're entering an era where financing terms can adapt based on actual asset usage, where maintenance needs can trigger proactive financing solutions, and where risk assessment becomes a continuous process rather than a one-time decision. This is a fundamental reimagining of dynamic, data-driven financing relationships.

The market forces driving data-driven auto finance

Today's auto finance landscape is changing due to powerful trends that demand a more data-supported approach to lending and leasing.

Electric vehicles represent a prime example. Electric vehicles function effectively as computers on wheels. They constantly upload data on battery performance, charging patterns and software updates.

Lenders and lessors are recognizing that electric vehicle telematics can inform smarter financing strategies. By tracking battery health and usage for example, institutions can better predict future resale value and set lease terms accordingly. This capability is critical in the electric vehicle market, where uncertainty about battery degradation makes residual values hard to forecast. Embracing telematics provides a distinct competitive edge in this rapidly expanding sector.

Telematics-driven finance in action

The following example demonstrates how a telematics-enabled adaptive loan program might work in practice.

A mid-size auto lender launched a partnership with a telematics provider to introduce an adaptive loan pilot program specifically designed for ride-share vehicles. The initiative aimed to leverage connected data for a smarter, more responsive lending experience.

Key objectives

- **Leverage real-time data**
  Utilize GPS and engine health data to understand vehicle usage and condition more effectively.
- **Reward responsible behavior**
  Offer incentives for consistent driving habits and lower mileage to encourage responsible vehicle use.
- **Enhance risk management**
  Use insights to improve portfolio performance and borrower engagement.

Approach

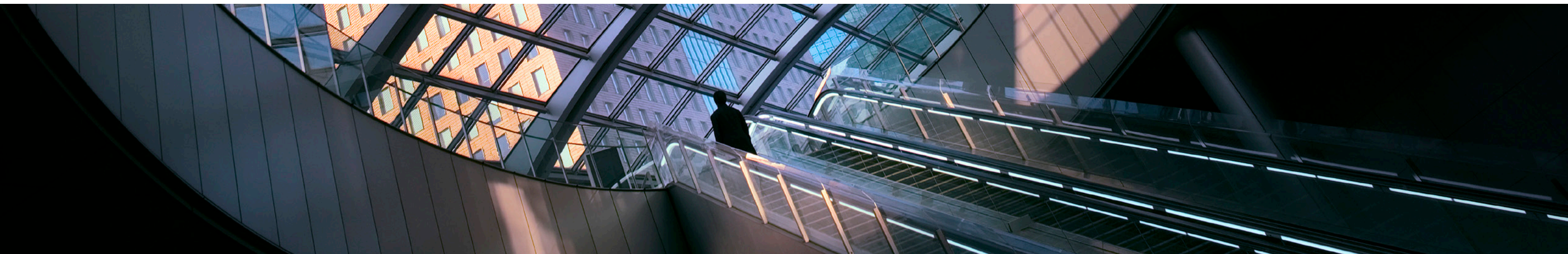
- **Integrated telematics technology** to collect real-time insights on vehicle performance and usage patterns.
- **Piloted an adaptive loan program** to adjust interest rates based on data-driven assessments of driver behavior.
- **Established personalized borrower communication** strategies based on early identification of emerging trends.

Results

- **Lower interest rates for borrowers**
  Drivers with consistent usage and lower mileage earned interest rate reductions of up to 1.5% over the life of the loan.
- **Improved portfolio performance**
  Early identification of driving trends facilitated proactive borrower support, reducing risk exposure.
- **Stronger borrower-lender relationships**
  Personalized engagement strategies created a more rewarding and cooperative lending experience.

Key takeaways

- **Data-driven customization**
  Real-time analytics enabled tailored financial solutions, aligning lender incentives with responsible borrower behavior.
- **Enhanced risk management**
  Connected vehicle data facilitated early intervention and risk mitigation.
- **Mutual benefits**
  The initiative demonstrated that harnessing telematics can reward conscientious borrowers while improving financial outcomes for the lender.



Rising consumer expectations and digital transformation

Digital transformation continues to raise the bar for financial services across all sectors. Borrowers accustomed to responsive services in other industries now expect the same personalized offerings in auto financing.

A data-driven approach may allow lenders to deliver smart financing products that resonate with a generation accustomed to digital customization. This includes offering mobile applications so customers can view their vehicle health data and understand how safe driving might reduce their interest rate or monthly payment. Harnessing connected car data can help lenders provide proactive, tailored experiences that align with digital-age expectations.

Economic pressures and the need for flexibility

Macroeconomic pressures like rising interest rates and higher vehicle prices are straining auto loan affordability. These conditions create urgency for new financing models that flex with customers' situations.

Adaptive financing models powered by real-time data may offer relief to borrowers during economic hardship. For example, a dynamic loan could automatically pause or reduce payments during times of low vehicle usage. Some industry observers anticipate broader adoption of flexible repayment options and real-time risk monitoring in the coming years.

Connected vehicle data may also serve as an early indicator system. Changes in vehicle usage or maintenance patterns could provide lenders with earlier insights, subject to fair lending requirements and applicable privacy laws. This may allow the lender to offer support options proactively.

The opportunity for lenders to lead

Lenders who use connected vehicle intelligence can help mitigate emerging risks while capturing significant new opportunities in the market. Usage-based financing, for example, replaces a static origination model with a dynamic loan structure that aligns the cost of capital with the depreciation and wear on the asset. Factoring real-time data into the loan lifecycle creates a fairer, more transparent relationship between lenders and borrowers.

Connected data allows institutions to anticipate customer needs with proactive lending solutions. For example, when a vehicle signals a major upcoming maintenance requirement, the lender can proactively offer repair financing or early upgrade options. This keeps the customer within the lender's financial ecosystem and helps build long-term loyalty.

Continuous risk assessment allows lenders to use utilization data to assess portfolio health in real time. Rather than relying on trailing indicators like missed payments, continuous monitoring enables more accurate reserve calculations, better strategic planning and earlier interventions for at-risk accounts.

Conclusion

The auto finance industry is navigating a period of profound transformation. Electrification, shifting digital consumer expectations and sustained economic pressures demand a departure from legacy lending practices. Institutions that successfully harness real-time vehicle intelligence — while maintaining compliance with privacy and fair lending requirements — have the opportunity to shape the future of automotive and equipment financing. Conversely, those who do not adapt to the wealth of data generated by modern vehicles may face increasing competitive pressure in an increasingly data-driven market.

Now is the time to evaluate your institution's approach to asset financing. By integrating connected vehicle data into your lending models, you can deliver the flexible, personalized and proactive services that modern consumers demand. By embracing the hidden data revolution, you can build stronger borrower relationships, optimize risk management and help drive sustainable growth in the new era of mobility.

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Jo Wright is the SVP of Auto and Equipment Finance at FIS. With extensive experience in financial technology and lending solutions, Jo leads strategic initiatives that help financial institutions navigate digital transformation, optimize asset financing and deliver exceptional client experiences in the automotive sector.

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Unlock seamless integration and human-centric digital experiences while ensuring efficiency, stability, and compliance as your business grows.

Money in motion

Unlock liquidity and flow of funds by synchronizing transactions, payment systems, and financial networks without compromising speed or security.

Money at work

Unlock a cohesive financial ecosystem and insights for strategic decisions to expand operations while optimizing performance.

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