How a Scalable Telematics Data Platform Enabled a Fortune 100 Insurer to Deliver 15% Cost Savings

INDUSTRY

Insurance

CAPABILITY

Data Modernization

FUNCTION

Revenue Growth Management & Customer Experience

TECH STACK

Databricks Serverless and Delta Live Tables, AWS

Client Overview

A Fortune 100 insurer with a broad portfolio of auto, homeowners, life, and specialty insurance. The company is expanding its IoT and telematics-driven offerings to grow auto policy share and deliver best-in-industry customer experience.

The Ask

The insurer needed a modern IoT data platform that could deliver trip insights within five minutes, scale to four times current volumes, ensure data quality and observability, optimize costs, and support the expansion of Usage-Based Insurance (UBI) products.

Challenges

SLA Risks

10–20 minute delays risked SLA breaches and slowed trip insights.

Data Reliability

Legacy enrichment constrained accurate, AI/ML-ready data.

Platform Alignment

Rapid tech shifts risked misalignment with enterprise IT priorities.

Security Demands

Integrating Databricks Serverless with AWS Cloud demanded strict security controls.

Observability Blind Spots

Limited KPI visibility hindered cost-performance management.

Our Solution: A Scalable Telematics Platform

Modernized Data Ingestion and Processing

Re-architected ingestion pipelines to handle diverse telematics data feeds from mobile apps, TSPs, and OEMs. Implemented structured streaming with Delta Live Tables for near real-time processing.

Embedded Data Quality and Reconciliation Frameworks

Introduced metadata-driven rules to standardize trip definitions, validate data formats, and ensure high-quality insights with automated reconciliation.

Real-Time Insights with Databricks Serverless

Shifted workloads to Databricks Serverless, enabling on-demand scalability and consistently delivering trip insights within five minutes.

Unified Observability and Governance

Designed dashboards for end-to-end monitoring of data pipelines, trip volumes, and SLA adherence. Integrated governance and security checks to support compliance.

Cost-Optimized, Future-Ready Blueprint

Developed a flexible roadmap that reduces run costs while extending the platform's scope to commercial vehicle telematics and home IoT sensors.

Impact Delivered

Latency reduced by around 70% to under 5 minutes, enabling real-time trip insights

Scalable to 800K+ trips per day, 4x the previous capacity

Potential run-cost savings of 15% through optimized serverless compute

Real-time observability dashboards for performance and growth monitoring

Automated reporting and CI/CD-enabled operations for reliability and faster releases

Turn Telematics and IoT Data into Actionable Insights in Real-time

START A CONVERSATION