Usage-Based Insurance With Due-Process Hostility Separation

by Nick Clark | Published April 25, 2026

What Usage-Based Insurance Currently Does

UBI products (Progressive Snapshot, State Farm Drive Safe & Save, Allstate Drivewise, Cambridge Mobile Telematics' DriveWell platform supplying multiple carriers, Nauto's commercial fleet products) observe driver behavior — speeding, hard braking, hard acceleration, swerving, distraction-pattern indicators — and produce risk scores that affect premiums.

The architecture treats observed behavior as a single signal. A driver with low skill (frequent hard braking, slow reaction times, marginal lane discipline) produces the same score-affecting observations as a driver with hostile intent (deliberate aggressive driving, road-rage incidents, targeting behavior). The conflation is structural to the architecture, not incidental.

Why Conflation Produces Actuarially Unfair Outcomes

Actuarial fairness requires that premiums reflect actual risk. Low-skill drivers have higher accident probability than high-skill drivers, and higher premiums for low-skill drivers are actuarially correct. Hostile drivers have higher accident probability than non-hostile drivers, and higher premiums for hostile drivers are actuarially correct.

The conflation produces unfairness when hostile-driver consequences (premium surcharges proportional to hostility-classification severity, policy non-renewal, adverse-event reporting to public-safety databases) are applied to low-skill drivers because the architecture cannot distinguish between the two populations. The legal and regulatory exposure of this pattern grows as UBI deployments scale.

How Architectural Bifurcation Restructures UBI

Risk profile construction uses the actuarial-credentialed pipeline: standard observation streams, statistical aggregation, premium computation under standard insurance regulation. Hostility profile construction uses the due-process-credentialed pipeline: criteria signed by appropriate authority (state insurance regulator under partnership with law enforcement for the most consequential cases), supporting observations identified specifically, classified-driver standing to challenge.

Cross-feed is governance-controlled. A driver's risk profile may inform hostility evaluation only through credentialed authorization (e.g., a pattern of behavior so extreme it triggers law-enforcement-credentialed review). A hostility classification, once finalized through due process, may inform risk profile, but the cross-feed direction is asymmetric and credentialed.

What This Enables for the UBI Market

Insurance carriers gain legal defensibility for behavioral classification. The bifurcated architecture supports the actuarial use of behavioral data without exposing carriers to the legal challenges that conflation produces.

Drivers gain due-process protection against adverse classification. A low-skill driver pays actuarially-correct higher premiums but is not classified as hostile under criteria designed for adversarial action. A driver classified as hostile through due process has

structural standing to contest. The patent positions the primitive that the regulated UBI market increasingly requires as compliance pressure grows.