Fleet Telemetry Migration

Moving 40,000 vehicles to the new data pipeline

Why Migrate

- The old telemetry pipeline drops packets under load
- No replay capability for post-incident analysis
- New pipeline adds exactly-once delivery guarantees

Migration Plan

1. Dual-write from vehicles to both pipelines
2. Validate parity on a 5% sample for two weeks
3. Cut over reads, then retire the old pipeline

Packet Loss, Before and After

Fleet segment	Old pipeline	New pipeline
Long-haul	2.1%	0.03%
Urban delivery	3.4%	0.05%
Regional	1.8%	0.02%

What's Left

Retire old pipeline scheduled for next quarter
Alerting still needs new-pipeline dashboards
Cost new pipeline runs 15% cheaper at current volume

Thank you