



PUBLIC SECTOR · OIL & GAS · LPG DISTRIBUTION

# How a National LPG Distributor Achieved 95%+ Route Compliance and Reduced Vehicle Detention by 60–70%

AI-Native Fleet Visibility · Safety Compliance · Logistics Control for a Public Sector Petroleum Corporation

**SECTOR**

Public Sector Oil & Gas

**OPERATION**

LPG Distribution

**NETWORK**

Multi-plant, multi-transporter

**COVERAGE**

50%+ of national LPG logistics

**SCALE**

Legacy Systems and Manual Processes.

ENMOVIL · INTELLIGENT LOGISTICS



## IMPACT AT A GLANCE

<b>95%+</b> Route Compliance Achieved Across All Plants	<b>20%</b> Plant Efficiency Gain from Reduced Idle Time	<b>12–14%</b> Carousel Downtime Reduced via Smarter Scheduling	<b>60–70%</b> Reduction in Vehicle Detention at Plants
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## BACKGROUND & SITUATION

### The Operating Environment

A major public sector petroleum corporation operates one of India's largest LPG distribution networks, covering over 50% of national LPG logistics and serving millions of households across the country. The operation involves multiple bottling plants and a large fleet of tankers managed by several independent transport contractors.

Despite its scale and strategic importance, the corporation was operating with minimal real-time visibility into fleet movement, plant utilisation, or transporter compliance. Supervisors relied on phone calls, paper registers, and disconnected data sources to track operations.

## TRIGGER FOR CHANGE

### The Regulatory Mandate

Regulatory directives from the central government mandated the deployment of vehicle tracking systems across all petroleum logistics operators, along with strict enforcement of route compliance and safety protocols. This coincided with growing internal pressure to reduce plant detention times and improve carousel throughput.

*The combination of regulatory mandates and operational inefficiencies created an urgent need for a unified, intelligent platform that could provide real-time fleet visibility, enforce compliance, and optimise plant-level operations simultaneously.*

## THE CHALLENGE

### Key Barriers to Operational Excellence

The corporation faced a complex set of interconnected challenges that had developed over years of fragmented logistics management.

#### No Real-Time Fleet Visibility

Complete absence of live tracking supervisors had no way to monitor vehicle location, movement status, or estimated arrival times across the distributed network.

#### Route Deviation & Safety Non-Compliance

Tankers frequently deviated from approved routes without detection. Overspeeding, unauthorised stoppages, and driver violations went unmonitored, creating safety and regulatory risks.

#### Inefficient Plant Operations & Carousel Bottlenecks

Without advance knowledge of vehicle arrivals, plant managers could not plan carousel loading schedules. Vehicles arrived unpredictably, causing queues and carousel underutilisation.

#### Fragmented Multi-Transporter Management

Multiple independent contractors operated under inconsistent standards with no unified platform to monitor, compare, or enforce compliance across the transporter ecosystem.

### Manual Reporting & Data Gaps

Operational data was captured manually and inconsistently. Reports were generated retrospectively with significant lag, making real-time intervention or proactive improvement impossible.

### Detention Time & Turnaround Inefficiency

Extended detention at plants where vehicles waited for loading slots without structured pre-arrival coordination inflated overall cycle times and reduced effective fleet capacity.

## THE SOLUTION

### Enmovil's Integrated Logistics Intelligence Platform

Enmovil deployed its AI-native logistics intelligence platform across the corporation's entire LPG distribution network addressing every layer of the operational challenge through a single, unified control environment. The platform integrated seamlessly with the existing transporter ecosystem and bottling plant infrastructure, requiring no significant changes to established workflows.

The solution combined hardware-level telematics with an AI-powered analytics layer, enabling not just passive tracking but active compliance enforcement, predictive scheduling, and exception-driven alerting transforming the corporation's logistics function from a reactive operation into a proactively managed, data-driven system.

## CAPABILITIES DELIVERED

### 1 Real-Time Fleet Tracking

- Live GPS tracking of all tankers across the full distribution network
- ETA prediction for inbound vehicles to each bottling plant
- Multi-plant, multi-transporter visibility on a single platform

### 3 Transporter Performance Management

- Individual transporter scorecards across compliance and safety
- Automated SLA breach detection and escalation workflows
- Periodic performance reports for contract review

### 5. Safety & Compliance Monitoring

- Overspeeding detection with configurable thresholds per zone
- Night driving restriction enforcement per regulatory requirements

### 2 Command Centre & Reporting

- Centralised control dashboard for national-level oversight
- Automated daily, weekly, and monthly operational reports
- Drill-down analytics from national to individual vehicle level

### 4 Plant Gate & Carousel Management

- Automated vehicle check-in via GPS and geofence triggers
- Carousel scheduling based on live inbound vehicle queue visibility
- Detention time tracking from gate entry to loading completion

- Driver behaviour analytics by transporter for performance review

## KEY VALUE DRIVERS

### Compliance & Safety

- Route compliance rose from untracked to 95%+ within the deployment window
- Significant reduction in overspeeding incidents after alert enforcement activation
- Night driving violations reduced through automated restriction monitoring
- Regulatory compliance posture strengthened across all plants and transporters

### Plant & Carousel Efficiency

- Plant efficiency improved by ~20% through better carousel utilisation
- Carousel downtime reduced 12–14% via pre-arrival scheduling
- Vehicle detention at plants reduced by 60–70%, releasing fleet capacity
- Throughput per carousel cycle increased without infrastructure expansion

### Operational Intelligence

- End-to-end trip visibility enabled proactive exception management
- Multi-transporter performance benchmarked on consistent, objective metrics
- Manual reporting eliminated; data captured automatically in real time
- Audit-ready compliance records available on demand for regulatory reporting

### STRATEGIC IMPACT

Enmovil's deployment across this public sector petroleum corporation represents more than an operational upgrade it marks the transition of a national critical infrastructure operator into a data-driven logistics enterprise. By bringing real-time intelligence to a network that serves millions of households, Enmovil has enabled the corporation to meet its regulatory obligations, improve the safety and reliability of hazardous goods transport, and unlock meaningful efficiency gains across its bottling plant network all without disrupting the continuity of an operation of national importance. The platform now functions as the operational backbone of one of India's most strategically significant logistics networks, providing the visibility, control, and accountability infrastructure needed to sustain performance at scale.