Turning GPS signals into operational alerts

A workflow from my fleet-tracking platform, from event to recorded outcome.

1 **Location event**

2 **Delivery job**

3 **Recorded outcome**

THE PROBLEM

A fleet operator needs to know when a vehicle crosses a monitored boundary. Location processing and notification delivery can fail independently. Recording an event does not prove a message reached its recipient.

MY CONTRIBUTION

Built and operate DiTrack's fleet platform across GPS integrations, telemetry, Rails, PostgreSQL, deployment and troubleshooting. Founded the business in 2011; hands-on platform engineering began in 2025.

THREE ENGINEERING DECISIONS

01 **Separate the work:** the reviewed implementation defines a dedicated notification job for geofence alerts.

02 **Record attempts:** delivery records associate a recipient and channel with an alert or geofence event and track status, timestamps and errors.

03 **Distinguish sent from delivered:** a provider accepting a message and a confirmed delivery are different states. This distinction matters when investigating a customer report.

WHAT THIS ENABLES

An operator can distinguish a boundary event from a notification attempt and investigate its recorded outcome. The website walkthrough illustrates a provider outage with synthetic data; it is not a live fleet demonstration.

SCOPE OF EVIDENCE

The local code supports the job and delivery-record design. This review does not verify the current production deployment, throughput, successful retries or end-to-end delivery. Recovery depends on the actual error path and worker configuration.

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