PRODUCT IMPROVEMENT CASE STUDY

RELEASE NOTES - PHASE 1
Real-Time Bus Tracking & ETA Improvements

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Release Date: End of Sprint 3
Version: v1.0

Overview:
Phase 1 focused on establishing core functionality for accurate, real-time location tracking of transit vehicles and improving ETA prediction logic. This release laid the groundwork for consistent live tracking and user trust in arrival information.

Features Delivered:
- Accurate Location Tracking
  - ➔ SCRUM-6: Real-time bus tracking via GPS
  - ➔ SCRUM-23: GPS polling integration
  - ➔ SCRUM-24: Map rendering of live updates
  - ➔ SCRUM-25: Backend endpoint for location feeds
  - ➔ SCRUM-26: QA test of real-time behavior

- ETA Prediction Enhancements
  - ➔ SCRUM-27: Audit of ETA logic
  - ➔ SCRUM-28: ETA algorithm update
  - ➔ SCRUM-7: New ETA estimates
  - ➔ SCRUM-29: Real-time ETA UI update
  - ➔ SCRUM-31: End-to-end testing of ETA and UX

Known Issues / Limitations:
- ETA predictions may vary during low GPS signal quality.
- UI responsiveness under heavy load still under monitoring.

Dependencies / Technical Notes:
- Requires backend support for GPS polling every 10 seconds.
- Frontend depends on Mapbox GL JS rendering for real-time overlays.