



EMPOWER | INNOVATION | CHAMPIONS 2014 INNOVATION FAIR

DIVISION OF ADMINISTRATION

GPS / TELEMATICS PROGRAM FOR D4'S FLEET VEHICLES

The Office of Business Management has partnered with HQ Division of Equipment (DOE) to implement the fully wireless Global Positioning System (GPS) / Telematics Program for District 4's Fleet Vehicles. A pilot program started in July 2012 has demonstrated the benefits of using this technology. Starting in August 2014, Networkfleet units are being installed in 1,451 vehicles in District 4. This program promises four main advantages to D4 fleet management: 1) reduced fuel consumption; 2) enhanced driver safety; 3) improved repair capabilities; and 4) improved emergency response.

NEED FOR INNOVATION

The goal in implementing the GPS / Telematics Program is to eliminate the current system, Cartags, which depends on operators to provide mileage and hourly vehicle usage. The new system monitors miles driven, idle time, and fuel use and wirelessly reports these statistics to Networkfleet servers. The Office of Business Management, as Program Coordinator, is working with DOE, the vendor, and D4 managers to develop innovative strategies to maximize the use of this accurate and real-time vehicle data.

HOW DOES THIS TECHNOLOGY WORK?



The Networkfleet units use GPS to monitor and collect data on performance metrics and engine diagnostics. Then, this data is transmitted wirelessly over the vendor's cellular network. Reports compiled from this data provide accurate information on vehicle usage and maintenance issues, which improves fleet management and efficiency. Telematics is the name of this approach to fleet management. The GPS / Telematics Program allows for smart, timely decisions that enhance safety. It provides actionable data to improve efficiency and reduce costs.

PILOT RESULTS: FUEL CONSUMPTION & COST SAVINGS

The pilot study on 50 vehicles has shown strong impacts on driver behavior, particularly with regard to fuel consumption:

- Increased Miles per Gallon:** The average miles per gallon (MPG) for the pilot vehicles increased by 2MPG, which translates into cost efficiency and reduced carbon footprint.
- Decreased Idling Time:** Idle events (>5 minutes) decreased significantly. This means less fuel being wasted and cost savings for District 4.

PROGRAM FEATURES THAT IMPROVE FLEET MANAGEMENT

- Fuel Use:** Fuel Usage and MPG Report monitors fuel used by each vehicle, reconciles gallons consumed with fuel card expenses; and monitors miles each vehicle has driven; Idle Time Report allows management to view the number of hours of idle per vehicle, compare an individual vehicle's idle time with peer vehicles and pinpoint underutilized or inactive driving hours; and Stop Detail and Idle Time Report enables management to review a vehicle's stops and pinpoint excessive idling.
- Safety:** Driver Safety Suite exonerates drivers who were not speeding at the time of an accident; Speed Violations Report improves safety and creates and enforces a speed policy to promote driver safety; diagnostics alerts notify of vehicle problems, such as a multi-cylinder misfire, that could cause a breakdown on the road; recall data notify about vehicle manufacturer safety recalls online; and location data enhances safety.
- Emergency:** Accurate Reporting of vehicle and fuel usage data to control agencies; and location of closest vehicle to a specific address speeds emergency response time.
- Maintenance:** Accurate mileage information; daily odometer updates; maintenance alerts; customized reports; and automatic alerts for diagnostic trouble codes.

