Helping the city of Jerusalem run smoothly and efficiently

Ituran's solution for municipalities and local authorities

Industry: Municipalities and local authorities
Location: Israel
Fleet size: 500+

Municipalities and local authorities operate fleets with many types of vehicles ranging from private vehicles, through commercial vehicles and heavy equipment and up to micro mobility vehicles. They have to deal with complex logistics, budgetary constraints, multi-locations across town, and a myriad of requirements and needs that are served by the fleet – from garbage collection to gardening and maintenance and up to safety and security – and a multitude of other services to the city's residents.

The Challenge

The municipality of Jerusalem, the capital of Israel, a large metropolis with a population of nearly 1M, operates an in-house fleet of over 500 vehicles, operated by more than 1000 municipal employees.

The municipality's fleet includes everything from pickup trucks, snowplows, tractors and excavators, sweeper trucks, dump trucks, to private vehicles and vehicles such as scooters used by the inspection department. These vehicles are often shared by several drivers, and provide services for many municipal departments, each with its specific needs and timetable: garbage collection, sweeping the streets, collecting pruned branches, transport of cargo, goods and people, maintenance and security, and even plowing the snow on the city's few annual snow days - to name a few. Driver safety and being able to respond to accidents in a timely manner are critical.
Logistics is complicated because it involves multiple locations throughout the city, tracking vehicles and schedules, managing heavy equipment and external contractors, and managing urban policing forces. Other concerns include protecting municipal employees' security and privacy, managing field staff with little or no access to municipal offices, tracking expenses, and staying on budget by avoiding excessive driver hours. Furthermore, the city has received many complaints from residents about the municipality's services such as garbage collection and street cleaning activities.

Our Solution

Ituran's comprehensive fleet management suite combines features from a several of safety, management, maintenance and tracking solutions to provide a versatile, adaptive, all-in-one tool to help manage the city's complex fleet efficiently and smoothly.
The solution includes the following components:

Ituran's integrated solution included the following systems, installed on all company vehicles:

StarLink Tracker telematics safety device with the following components:

- GPS & modem – provides the exact location of each vehicle in real time.
- Ituran Safety - tracks and monitors driver behavior using an innovative multidimensional accelerometer sensor, produces (for each driver) an individual score based on their performance – sudden braking and acceleration, sharp turns, high-speed driving over speed bumps, erratic overtaking, speeding and more.
  When an accident occurs, data collected before, during and after provides evidence on what really happened.

Diagnostic Sensors - simple to use, non-intrusive vehicle diagnostics tools that analyze vehicle information in real-time to provide alerts about vehicle health or other parameters:
iData - designed for advanced real-time vehicle analysis with customizable notifications on the vehicle's health, iData's CANBUS integration allows access to advanced telematics information: engine temperature monitoring, gear state, DTC (diagnostic trouble codes), oil pressure & temperature, safety features and other parameters running on the vehicle's CAN wires during its operation.
iCan - enables CAN reading, and is installed by placing the device over the CANBUS wires. The device uses simple formulas to create alerts for any combination of parameter values broadcast over the CANBUS or OBD CAN.

Driver ID –driver identification is required prior to ignition so that the fleet manager is aware which driver is driving which vehicle. Data is collected specifically per driver. Dallas key, card reader or 5/10-digit keypads, are designed to enable control over applications such as: driver identification, Immobilizer, panic-button and trip-type setting. Can be used to set up to 500 different codes for driver identification; 3 trip-types (for example work/private/weekend).
This enables the operation of Timekeeper - an in-vehicle reporting system that allows off-site employees (driver and crew) to easily report the beginning and end of their work-day, as well as break times.

Panic button – triggered in the event of an accident, pressing the button sends an immediate alert to the relevant persona/control center who can provide immediate assistance.

Results

Ituran's comprehensive fleet management solution improved the city's ability better serve the city's residents by being able to efficiently manage a complex fleet, under numerous logistic and operational constraints. As all of these components are managed under one system, it provided a significant improvement in municipal fleet management and overall fleet performance, along with a substantial improvement in vehicle maintenance status and a significant decrease in operational costs.

Notable improvements were noted in the following areas:

1. Significant cost savings as a result of improved vehicle health, and use of maintenance and operational data provided by advanced system diagnostics, to derive actionable insights. Less funds are now being allocated to the purchase of new vehicles due to extended vehicle life-cycles. Fuel management and maintenance features lead to a notable reduction in maintenance and fuel costs.

2. Improved garbage collection: all garbage trucks are tracked throughout the day to ensure they complete their entire route, including whether or not the lift is actually operated, in order to ensure that the garbage is actually collected. The city was able to improve the use of garbage collection vehicles across the day and during the day and a 100% improvement was recorded regarding complaints about garbage collection late at night or early in the morning.

3. Improved performance of municipal inspectors and security forces:
   - The city is now better able to determine that they are completing their assigned routes, regardless of the type of vehicle they are driving – micromobility vehicles, cars, trucks, patrol or traffic enforcement vehicles, etc, by defining specific locations such as educational institutes or parks. Tracking features enable identifying the location of each vehicle during work hours and along with a system time clock and driver id enable the generation of periodic activity reports – per driver and management of scheduling.
   - The ability to call in closest relevant personnel in case of an event that requires attention. Sharing the location of municipal inspectors and security forces in case of emergency of a vehicle technical fault, or in sharing the location of two or more units that need to meet up.

4. Enhanced safety for drivers and passengers in all fleet vehicles: fewer accidents, and when accidents do occur – the ability to provide real-time assistance as well as detailed reports on the events leading up to and following the accident.

5. End to end handling of accidents during the event and afterwards: panic buttons, tracking and accident safety features provide alerts in case of an accident, alert nearby rescue vehicles while dashcams document and the event and the footage is saved for future investigation.

6. Reduced bureaucracy: The fact that the entire system, including technical support, is developed and provided by a single supplier, has simplified the work of the relevant municipal officers as there is a single point of contact for all issues regarding the city's fleet management.