BACKGROUND

The Customer

UNDP, an international not-for-profit organization, works towards eradicating poverty in about 170 countries, with more than 17,000 staff members and employees. To move people best suited to tackle various challenges, UNDP employs roughly 3,000 vehicles including trucks, cars, vans, and even armoured vehicles.

The Challenge

As they pursued their grand mission, UNDP wanted a solution that could help them manage their large vehicle fleet efficiently – so that they could reduce environmental impact, save vital funds, and bolster donor confidence, while ensuring the safety and security of their staff and the host communities.

QuEST Global and Microsoft

Microsoft, being a longstanding technology partner to the United Nations (UN) and having powered almost all of their ventures, was entrusted to provide a solution that could help manage and monitor UNDP’s fleet globally.

QuEST Global, Microsoft’s IoT Partner, built the fleet management solution powered by Microsoft’s Azure IoT Central.

THE SOLUTION

Deployed for pilot at 4 UNDP centers, going global by 2020

- QuEST, along with Microsoft, connected with the UNDP leadership to understand their goals and identified the most important metrics to track:
  - Speed, location, vehicle health, and driver behavior (To be effective with both satellite and cellular connections)
- We developed a robust solution that includes:
  - Industry standard OBD-II dongles to connect vehicles to cloud
  - IoT fleet management software from QuEST
  - Microsoft Azure
- The fleet management solution uses telemetry readings from Internet of Things (IoT) enabled devices to help UNDP track their fleet’s location, driver behavior, speed, and vehicle health, in real-time.

QuEST Global is part of the Microsoft Accelerator Program for developing next-gen solutions in IoT, AR / VR
QuEST’s Solution, Powered by Microsoft

QuEST’s Fleet Management Platform is a comprehensive tool that enables business owners to locate, track, monitor and assess their fleet in real-time 24X7.

It integrates multiple vehicle monitoring sensors with a centralized field gateway, which then passes on the data to Microsoft Azure IoT Central. Data is processed on Azure to provide real-time and predictive analytics to multiple stakeholders. The Azure resources leveraged for data processing include IoT Hub, Machine Learning, Event Hub, Stream Analytics Jobs, and Document DB among others.

QuEST’s Fleet Management Solution

The solution also enables fleet owners to trace the location, status, condition and estimated arrival time of a vehicle through a user-friendly mobile or web app that allows easy management and monitoring. Thus it increases the efficiency of monitoring vehicles locally and remotely, assesses driver and vehicle performance, forecasts vehicle wear-and-tear, and thus improves route efficiency.

<table>
<thead>
<tr>
<th>Existing or Custom Hardware</th>
<th>Edge Computing Hardware for Data Processing</th>
<th>IoT Central</th>
<th>End User</th>
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<td><img src="image" alt="Existing Hardware" /></td>
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**KEY CAPABILITIES**

- Trip Management & Reporting
- Vehicle Diagnostics & Reporting
- Driver Behaviour Analytics
  - Alert Creation
    - (Geo-fencing, Fuel Use)

**IMPACT CREATED**

- **UNDP Georgia saves >50K USD in less than 6 months**
  - Solution to be deployed at all UNDP centers across the globe
  - **Improved staff safety**
  - **Significant budget conservation**
  - **Higher donor confidence**
  - **Lower carbon footprint**

To learn how QuEST Global’s transformative engineering solutions can help you succeed, contact salesenquiries@quest-global.com or visit quest-global.com

For more than 20 years, QuEST Global has aimed to be a trusted global product engineering and lifecycle services partner to many of the worlds’ most recognized companies in the Aero Engines, Hi-Tech, Aerospace & Defense, Transportation (Auto and Rail), Power and Industrial, Oil & Gas and Medical Devices industries. With a global presence in 14 countries, 72 global centers and 11,800+ personnel, QuEST Global believes that it is at the forefront of the convergence of the mechanical, electronics, software and digital engineering innovations to engineer solutions for a safer, cleaner world. QuEST Global’s deep domain knowledge and digital expertise aim to help its clients accelerate product development and innovation cycles, create alternate revenue streams, enhance consumer experience and make manufacturing processes and operations more efficient.

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