Go-Ahead Group: Gaining critical maintenance insights and electrifying with confidence

Challenge: A need for consistent, reliable bus diagnostics data

Go-Ahead is a leading international public transport operator that sees the value of embracing technology and data to improve customer service. It has used Geotab across its bus fleet in the UK, including in London where it is the largest operator of bus services. The company's engineering team needed access to the vehicle and engine diagnostic information so that they could optimise vehicle health. Geotab was selected for its ability to provide consistent information across the varying makes and models of buses, as well as to guide its bus electrification strategy and provide access to critical EV data to help it optimise the use of its new electric buses and reach its decarbonisation goals.





Fleet profile

Company:

Go-Ahead Group

Industry:

People Transportation

Based in:

UK and republic of Ireland

Types of vehicles:

Buses

Fleet size:

6,150

Fleet focus:

Optimisation and Sustainability

Solutions:

- EVSA
- MyGeotab
- · Sustainability centre
- GO9 devices
- IOX-UREADER
- · IOX-NFC reader

Solution: Flexibility and continual innovation



G09 telematics devices

Rollout of Geotab's GO9 telematics devices began in July 2024, and by September 2025 over six thousand devices had been fitted in buses located across the length and breadth of the UK. Since most of the fleet works all day, the installers had to work flexibly and arrange installations out of hours to prevent Go-Ahead Group from suffering any operational impact.



Engineering team

The engineering team is tasked with keeping their buses healthy, and with Geotab's real-time Diagnostic Trouble Codes (DTCs), they are now able to look out for early signals when their vehicles need repair. These maintenance insights help the team to take early interventions to keep their buses on the road and ensure that route schedules are adhered to. Therefore, mitigating the risk of performance-related fines and saving thousands of pounds by identifying minor problems before they escalate into expensive repairs or catastrophic failures.



Inherent complexity of buses

Due to the inherent complexity of buses, which are commonly built with different engines, chassis and electronics, extracting rich diagnostic data with credibility and scalability is a great challenge, but it's one for which Geotab are uniquely well-equipped. Geotab's Solutions Engineering team ensured uniformity of data across all of Go-Ahead's different makes and models of buses, and is continually innovating to make the resulting diagnostic data insights more readable and digestible for the engineering team.



Operational and economic benefits

The use of Geotab has delivered operational and economic benefits to Go-Ahead, with the operations team benefitting from Geotab's highly accurate vehicle location data to manage and optimise service schedules. Within London, the buses are fitted with an NFC reader so that drivers can swipe their fobs to allow for accurate driver identification and aligning of behaviour data with the individual drivers. Outside of London, Geotab integrates with the existing onboard electronic ticket machines (ETMs) for driver identification.

GoAhead London have amalgamated the local controllers into a single central control center that monitors the routes throughout their execution. This centre provides 24/7 coverage of the controllers alongside engineers who can advise on road-based faults.

They use Geotab to get the exact location of the vehicles, provide real-time advice on faults and guide drivers accordingly. The control centre also monitors the state of charge (SOC) for the electric vehicles, enabling them to ensure routes are completed or to arrange a vehicle swap-out and return to base. This strategic shift has reduced their reliance on the TFL data enabling proactive and efficient operational management.



In-cab feedback

In London, a pilot programme is underway to provide in-cab feedback to drivers based on Go-Ahead's customised safety thresholds, for example related to harsh cornering, acceleration or braking. This instant feedback will help the drivers to immediately change their behaviour, improving fuel efficiency and increase safety standards.



Assisting Go-Ahead to go electric

Go-Ahead's ambition is to have a completely zero-emission fleet by 2035, using a mix of battery electric and hydrogen fuel cell buses. Oxford Bus Company is also currently launching an all-electric bus fleet. With these bold targets for electrification comes a need to ensure that the newly acquired buses are being optimally utilised for maximum return on investment (ROI). This requires that the telematics system can gain access to the electric vehicle's data, but electric vehicle data is currently unstandardised, and Original Equipment Manufacturers (OEMs) don't have to provide the same data points that they do for internal combustion engine vehicles.

Geotab has an extensive background in extracting electric vehicle data and working with OEMs to provide their electric vehicle data in line with the VDV-238 standard and J1939 signal set. This ensured that the extractable EV data for the newly purchased electric buses met Go-Ahead's needs and enabled the operations team to optimally manage their electric buses in all weathers. Geotab has also closed a crucial information gap for the Group, by providing the live

SOC data it needs to optimise the utilisation and ROI of the new electric buses. Otherwise, the operations team would have only been able to see the SOC while charging, via their charge providers.

Impact: Proving the ROI potential

With the help of Geotab data, Go-Ahead London has already made strides in improving its maintenance operations, resulting in substantial cost savings, including:





Preventing catastrophic engine failures by monitoring low oil pressure; between 8 and 10 vehicles are identified per month at Go-Ahead London, saving up to £20,000 per engine.

→ BREAKDOWN



Breakdowns have been avoided by monitoring coolant temperature and faulty sensor detection, preventing over 10 breakdowns in the first month with significant savings **per breakdown** when considering the cost of the vehicle, maintenance costs, and the provision of a replacement.



Next Steps: Complete fleet visibility and control

Go-Ahead London intends to use Geotab's data across all areas of the business, including so that they can report on fuel usage to third parties and leveraging Geotab's Software Development Kit (SDK) to provide data to Transport for London (TfL) and ticketing systems.

Geotab will also continue to engage with the electric bus OEMs for them to standardise their electric vehicle data availability and the Solutions Engineering team continue to innovate to ensure maximum availability across all makes and models. This will support Go-Ahead in their ongoing transition to electric, as well as supporting the bus market as a whole.

"The data we receive from Geotab has helped us improve the performance of our services. As well as delivering operational and economic benefits, it means we've been able to strengthen the reliability of our services to customers."

- Matt Carney, CEO, Go-Ahead Bus

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