Envigilant Systems™

Envigilant Systems Provides Innovative Paratransit Fleet Monitoring & Improved Customer Experience

The Challenge

Transportation agencies are faced with the challenge of delivering better customer experiences to increase ridership while maintaining costs and being environmentally responsible.

In particular, offering an improved transportation experience for individuals who cannot use conventional public transit services such as bus or light rail is a top priority. Paratransit vehicles provide many essential services for people with limited mobility, so reliability, comfort, and safety are all paramount. However, monitoring passenger safety and compliance with regulations across a diverse fleet of vehicles serving many routes is a difficult problem to solve.

Our Solution

We have developed a secure IoT-based solution that can collect data from many sources including video and provides alerts in real-time when exceptions occur. This field-proven technology provides several features for riders and transit operators:

- Automatic video recording of passenger loading and unloading
- Live "look-in" facility to ensure safe practices are followed
- Web-based dashboard recording and monitoring vehicle location
- Engine diagnostic data and G-force accelerometer information for vehicle safety and useful maintenance data
- Passengers ability to connect to the internet with free wireless access
- Passengers receive real-time messages via touchscreen tablets providing the ability for passenger feedback
- Real-time advanced video analytics and opportunities for machine learning/artificial intelligence applications such as emotion recognition
- Data acquisition from other existing vehicle and engine sensors providing operational and maintenance data to identify optimum maintenance schedule

Our Experience

Our solution has been in everyday use with an independent transportation agency responsible for more than 40 million passengers moving through its network of buses, light rail and paratransit vehicles every year. Their paratransit vehicles were fitted with a ruggedized server, location-based router for GPS and internet backhaul, and various sensors including high-definition video cameras. Passenger feedback indicates an increased positive rider experience and the agency is benefiting from its improved fleet monitoring and safety.

For a free consultation, please visit www.envigilantsystems.com
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