Bespoke vehicle data solutions for IT systems in the public transport sector

Solutions for buses and coaches
Bespoke solutions for buses

Squarell hardware is able to gather more parameters from a bus than a standard (OEM) FMS. For instance the speed, brake usage, RPM, ODO, idle time and emission \((\text{NO}_x/\text{CO}_2)\) parameters, but also vehicle warning indicators. The combination of parameters provides the fleet owner/operator with valuable information about their buses. This information can be used for smart solutions aimed at saving fuel, predictive maintenance, reducing emissions and more.

Our main goal is providing standardised data for every vehicle in a bus fleet. Our method starts with the collection of vehicle parameters from various data protocols including CANbus. Our hardware processes the collected data in a standardised format and makes this information available to the telematics systems of our clients. An example is the preparation and processing of FMS/CAN data for use with IP devices.

Why choose Squarell Technology?

Squarell is the independent specialist in vehicle and CANbus data. Squarell’s technology makes it possible to read data signals from various types of vehicles, including buses, coaches and similar motorised vehicles.

Our hardware is ready to read vehicle data protocols from various vehicles, with or without an FMS CANbus. The collected data is processed by the Squarell Vehicle Data Interface and offered in a standardised format to the telematics systems in the bus.

The public transport sector is in a constant state of development and therefore, Squarell keeps a close eye on the market. Our solutions are aimed at saving energy and preserving a good environment. An example of this is the provision of data that can help predict vehicle maintenance and thus extend the lifetime of buses.

Who can benefit from our technology?

Squarell supports the Information Technology for Public Transport or ITxPT. ITxPT is a European initiative aimed at collaborating to implement standardisation for plug-and-play IT systems in public transport.

Squarell’s solutions are focused on improving the standardisation of vehicle data and it’s compatibility with onboard IT systems. That is why our technology is suitable for various parties involved in public transport, such as telematics service providers (TSPs), software and hardware providers, (local) authorities and original equipment manufacturers (OEMs).
How our technology is connected

Our technology can be used to connect new and existing IT systems in the public transport sector with the goal to standardise transport data.

Squarell retrieves data from the CANbus which matches the ITxPT parameter set. Besides the common parameters, Squarell is specialised in translating manufacturer specific messages to a uniform format. The available parameters give a good insight as to the vehicle status. The Squarell Bus & Coach data solution is a unique tool for fleet managers and public transport operators to reduce costs, monitor fleets and reinforce positive and safe driving behavior.
Unique Squarell products and features

Our multi source vehicle data interfaces can process data from various protocols like CAN, J1708 and K-line, they are brand independent. The signals are retrieved with the patented CANcliQ and DatacliQ readers: for contactless data readings without a wire-to-wire connection.

The Squarell interfaces can be expanded with software and hardware extensions that enable a wide range of additional features. Some examples include the Driver Awareness Panel, an Event Data Recorder, Tacho Download, Tacho Remaining Driving Time and much more.

About vehicle and parameter support

It is Squarell’s challenge to support all of the vehicles in a bus fleet. We already have a large database of supported vehicles that are scanned for parameters and compatibility. As soon as there are requests for reading parameters from new vehicles, our engineers go into the field to scan and represent the buses in our vehicle database. Our field engineers are able to scan a wide variety of buses such as combustion engine buses, gas (LNG/CNG) buses, electric buses and hybrid buses.

Benefits

- Large support of vehicles that are used in the public transport sector and beyond
- Standardised data for every vehicle in your fleet
- Advanced engineering focused on current and future developments in the bus market
- Future-proof products: durable, reusable and ready for future upgrades
- In-house R&D, hardware production, service support
- Made in The Netherlands

Memberships

- E4 certified