WASTE TRANSPORT MANAGEMENT

INTRO

Waste management is one of the most important issues of this decade, as it is related to waste recycling and environmental protection. Waste management involves the use of specialised equipment, so a dedicated solution is required to prevent misuse and ensure optimal and safe use. Teltonika GPS devices can help to achieve these goals.

CHALLENGE

One of the most important tasks for fleet managers is to keep their equipment in good technical condition, as any breakdown can lead to significant losses and complications. Irresponsible driving with the forceps down (which is prohibited) or delayed technical maintenance of trucks can disrupt daily business operations and result in unforeseen extra costs.

Delayed waste collection or, in the worst case, no service at all, can also lead to many complaints and partnership problems with existing contractors. Thankfully, Teltonika Telematics has a forward-thinking solution to these challenges.

SOLUTION

Teltonika PROFESSIONAL category GPS trackers, such as FMB641 (2G), FMC650 (LTE Cat 1 with fallback to 2G), or FMM650 (LTE Cat M1 with fallback to 2G) are the most accurate devices for tracking heavy vehicles in the most demanding and complex use cases. As an example, we have chosen the FMC650 model to demonstrate the solution.

How it works - these vehicle trackers support FMS data reading, allowing a wide range of on-board vehicle information to be read via the SAE J1939 protocol, including axle load data, RPM, engine hours and more. Models have a dedicated SAE J1708 port which is used to read vehicle fuel level and fuel consumption on certain types of vehicles. In addition, our professional trackers have the functionality to read and support any additional third-party sensors, for example, sensors connected via RS232 and RS485 interfaces, or even custom CAN sensors used for special and complex requirements.

To better streamline fleet operations, FMS data can be used to monitor rear axle loading, i.e. the weight of waste loaded into the truck and the locations where service is most needed. Based on these figures, the fleet owner can optimise routes and schedule truck loading and/or servicing more effectively.

Teltonika vehicle GPS trackers can receive data to prevent unsafe behaviour, such as driving with the forceps down, engine RPM, excessive speed, hard cornering or braking. As a result, fuel consumption and vehicle service costs are reduced and the chassis, brakes and other critical parts of the vehicle are kept in good condition for longer.

Driver identification is the most accurate way to record which driver has operated the truck at certain times and to monitor driving behaviour during working hours. Driver identification is authorised via 1-Wire (RFID card or iButton). This functionality can also be used in an 'immobilizer' scenario so that the engine can only be started with ID authorisation.

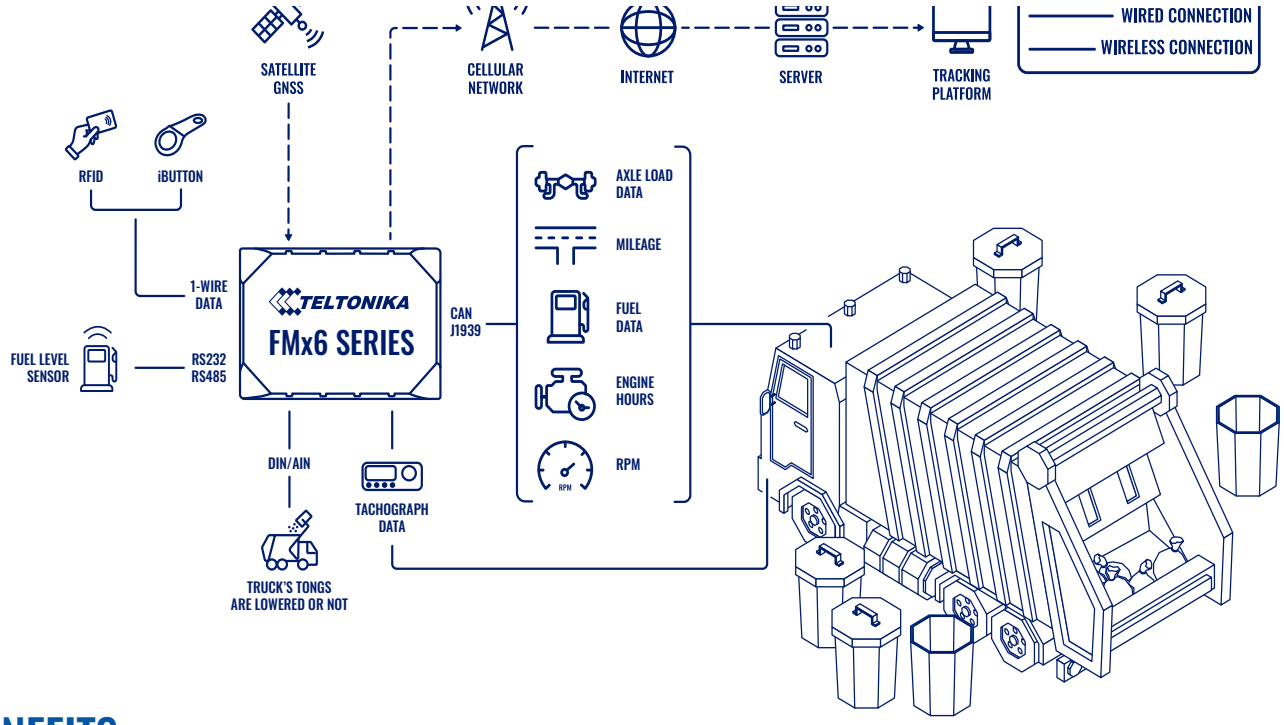
What is more, Teltonika PROFESSIONAL GPS trackers can be connected to a tachograph - a device that records driving times. This smart feature allows managers to download DDD files and read live data. There are two connection options - the first is the usual connection from the end of the tachograph, and the second is an innovative connection from the front panel using the TACHO cable. All collected information is conveniently available in the WEB TACHO application. This feature can be used to avoid penalties from the authorities by monitoring the working and rest times of employees.

It is also a solution for preventing fuel theft (draining). The FMC650 can connect to and read data from Liquid Level Sensors (LLS) via RS232 and RS485 ports. The advantage of this feature is that LLS can operate without an

on-board computer and send information in real-time. Fleet managers can easily identify which vehicle has been drained and when.

In addition, PROFESSIONAL FMx6 series trackers can monitor whether the refuse truck's container is full or empty by using the axle load data received via J1939. By reading the status of the connected digital inputs, they can determine whether the truck's tongs are lowered and still in use, or no longer in use but still lowered. This ensures safe driving and reduces unexpected vehicle service costs.

TOPOLOGY



BENEFITS

- **Improved route efficiency -** use real-time tracking to optimise routes for waste collection vehicles. This results in reduced fuel consumption and faster service times, improving overall operational efficiency.
- **Improved fleet management -** gain comprehensive insight into fleet operations, including vehicle locations and usage patterns, enabling better management of resources and scheduling.
- **Increased driver accountability -** monitor driver behaviour to ensure compliance with safety standards and operational protocols, improving service reliability and safety.
- **Preventive maintenance alerts -** receive timely notifications of vehicle maintenance needs based on usage data, helping to avoid unexpected breakdowns and extend vehicle life.
- **Reduced operational costs -** efficient route planning and maintenance management lead to significant cost savings in fuel, vehicle wear and tear and labour.
- **Eco-friendly operations -** by optimising routes and reducing unnecessary idling, you contribute to a lower carbon footprint, in line with environmental sustainability goals.
- **Data-driven decision-making -** access to detailed analysis and reporting provide valuable insight for strategic planning and continuous improvement of waste management operations.

WHY TELTONIKA?

At Teltonika Telematics, we understand the unique challenges of the waste transport industry. That is why we offer PROFESSIONAL category GPS devices designed to meet these challenges head-on. Our vehicle trackers provide detailed insight into every aspect of your fleet's operations, from route optimisation to vehicle maintenance. By using our products, waste management companies can achieve operational excellence and ensure timely and efficient waste collection and transport, which is critical in today's fast-paced world.

For waste management service providers, Teltonika GPS trackers are not just tools, they are catalysts for operational excellence, environmental responsibility and improved service delivery. When you choose to partner with us, you are not just choosing a product, you are choosing a path to a more sustainable and efficient future.

FEATURED PRODUCT

FMC650

RELATED PRODUCTS

FMB641, FMM650

RELATED ACCESSORIES

1-WIRE RFID READER, IBUTTON, TACHO CABLE, TACHOGRAPH FRONT PANEL CABLE