

LOGISTICS TRACKING IN REMOTE AREAS USING IRIDIUM CONNECTED® TELEMATICS SOLUTION

INTRO

From a global perspective, there are still large areas without mobile network coverage. This can pose a serious safety risk to logistics fleet drivers who have to cross or visit these remote areas. To help with that, Teltonika Telematics has a sophisticated solution, providing connectivity all over the world.

CHALLENGE

Most cities worldwide already have 4G LTE connectivity and some are already experimenting with 5G networks. However, if you drive on the outskirts of large cities, the quality of connectivity starts to deteriorate, even in developed countries. Especially in areas of rugged terrain - hills and mountains block the direct signal.

If we look at developing countries with large areas – African deserts and savannahs, Australian plains, or the jungles and rainforests of South America – there are large areas without cellular connectivity. The [GSMA global network coverage map](#) provides a better picture. While connectivity providers are concentrating on 4G and 5G networks, 2G towers are left unattended until they stop working due to a malfunction. It will leave even bigger patches with no connectivity.

The above-mentioned connectivity issues create a variety of challenges around the world. Commercial vehicles that cross remote border regions without connection are easy prey for bandits and thieves' groups. Lack of communication makes it impossible for drivers to contact emergency services in the event of a robbery. This not only results in the theft of valuable business assets but, more importantly, endangers the lives of drivers. Meanwhile, Australia offers different challenges. Areas without connectivity can extend hundreds of kilometres. This poses a serious risk to those travelling over large areas with cargo loads or exploring these areas on sightseeing excursions into the countryside.

Because of the harsh climate, severe weather conditions and immense distances to civilization, it could take hours for emergency services to reach the place, therefore the timely SOS signal is a must. Even more, running out of fuel or a mechanical breakdown might have deadly consequences without proper communication equipment. When a rescue team does not have a location and time of an accident, searching vast areas consumes a lot of precious time, sometimes with tragic consequences.



SOLUTION

To address these issues, Teltonika Telematics offers a complete Iridium Connected® Telematics Solution. It was developed in partnership with one of the world's largest providers of satellite connectivity - [Iridium](#). In areas where no other connectivity is available, Iridium has satellites that communicate with a device anywhere on the planet, regardless of the proximity of telecommunication towers or terrain roughness. The [Iridium Edge](#) satellite modem is perfectly integrated with Teltonika vehicle GPS trackers to ensure a steady connection.

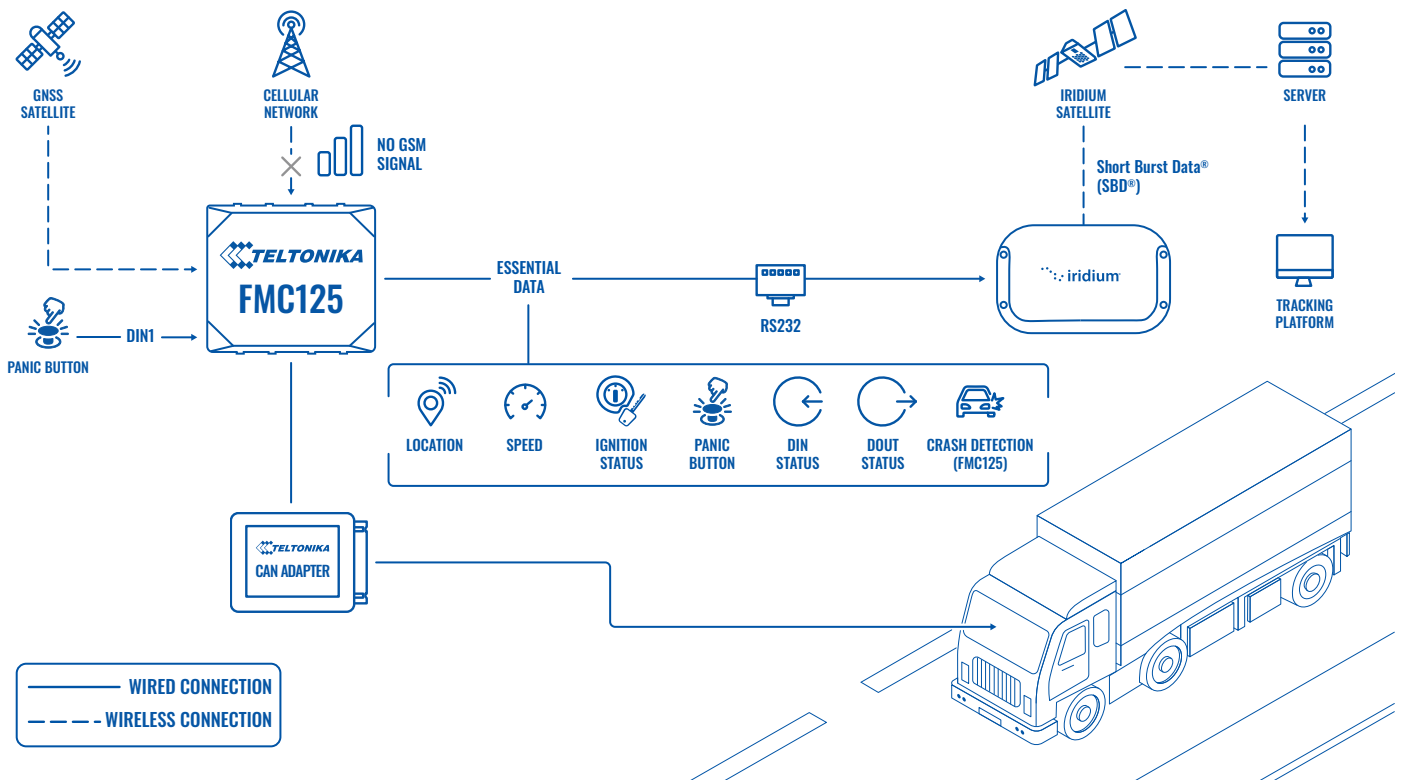
This device can be used with either Teltonika [FMC125](#) or [FMx6 series](#) models. Each of these trackers brings its own value and a handy set of features. FMC125 is an ADVANCED category 4G LTE Cat 1 network GPS tracker with multiple inputs and outputs, a 1-Wire interface, and CAN bus adapter support. While FMx6 is a PROFESSIONAL category vehicle tracking devices with extended functionalities, such as FMS CAN data ([J1939](#) standard), fuel CAN data ([J1708](#) standard), tachograph live data (K-Line) and more, which is particularly suitable for heavy vehicles and machinery. Using narrowband [Iridium Short Burst Data® \(SBD®\)](#) protocol, it is an efficient packet-based service for vehicles and teams operating in remote areas.

One of the main features of this solution is the possibility to fit a vehicle with a panic button. In case of an emergency, the driver can press the panic button to activate the Iridium Edge satellite communication modem. It will send the signal, along with precise coordinates of a Teltonika GNSS tracker and other valuable information, which was programmed to be sent in case of such events. This means that emergency services can save valuable time by knowing the exact location of an event and the time of the signal sent.

In addition, the FMC125 tracking device has a crash detection scenario feature. This is useful in the event of an accident when neither the driver nor the passengers can press a panic button for any reason. As an example, a vehicle crashed and the driver and passengers were injured. The tracker will automatically send alarm notifications in case of a road accident.

The mentioned features considerably increase the chances of survival and save a lot of time and money. In both instances, emergency services and vehicle owners are provided with timely and useful information. All this is made possible thanks to the Iridium Connected® Telematics Solution.

TOPOLOGY



BENEFITS

- **Valuable data anywhere in the world** - satellite connectivity ensures that data is sent even to areas without mobile network connectivity.
- **Cost-effective solution** - simple add-on Iridium Edge only sends data when the GNSS tracker is unable to send data via the cellular network.
- **Smooth transition between networks** - the Iridium Edge modem will connect automatically when the cellular network is lost and stop sending data when the cellular network is present.
- **Data can be transmitted even in adverse weather conditions** - fleet vehicles will always be visible regardless of weather conditions.
- **Keeps drivers and passengers safe** - the panic button allows reacting quickly to any emergency situation by pinpointing the exact vehicle location.

WHY TELTONIKA?

Iridium Edge modem is seamlessly integrated with an ADVANCED model FMC125 and PROFESSIONAL FMx6 vehicle GPS trackers, giving a wide range of data that can be extracted and sent to the fleet manager: precise location, CAN bus data and various events – prolonged stops, crashes and other programmable scenarios.

Teltonika Telematics tracking devices can be used in a variety of industries in remote locations such as international logistics, mining, agriculture and emergency services. From our company's founding 25 years ago to today, we are a team who have manufactured more than 24 million devices and helped thousands of customers and business partners succeed in more than 160 countries around the world.

FEATURED PRODUCT

FMC125

RELATED PRODUCTS

FMB125, FMM125, FMB641, FMC640, FMC650

RELATED ACCESSORIES

LV-CAN200, ALL-CAN300, Iridium Edge®

