PEOPLE-COUNTING IN PUBLIC BUSES WITH MOBILE ROUTER

HIGHLIGHTS

- EcoTelematics Group is a Finnish enterprise specialist in solution development and integration for the passenger transport industry.
- Its proprietary automatic passenger counting technology, featuring sensors and its NaviFleet software, required a reliable networking device to ensure each endpoint would send real-time data to the software for the solution to do its intended job.
- The company opted for the RUT956 mobile router, equipped with 4G LTE connectivity with failover and GNSS technology for accurate GPS tracking of public buses to make all EcoTelematics' boxes tick.

THE CHALLENGE – UNFORTUNATELY, PUBLIC BUSES AREN'T BALLOONS

As environmental awareness increases and the drawbacks of fossil fuel-powered vehicles become clearer, more people are choosing public transportation for their commutes. This shift is undoubtedly great, but it raises concerns of matching public transportation capacity with passenger demand.

Public transportation, for all its virtues, cannot stretch like a balloon. With limited seats and available space, ensuring a safe and comfortable ride requires clever strategies. The most effective approach involves using real-time data to analyse passenger traffic.

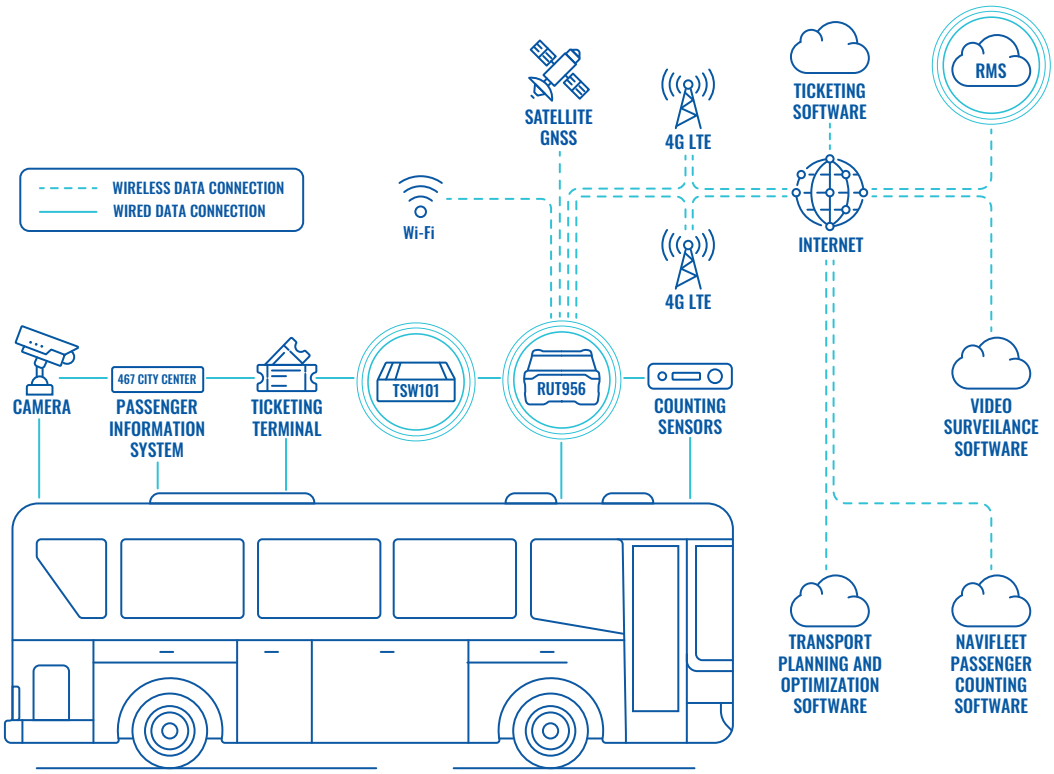
While real-time data processing alone doesn't resolve this concern, it's the precise tool for making informed operational decisions.

Our partner, EcoTelematics Group, offers automatic passenger counting technology, featuring sensors and its proprietary NaviFleet software, to track passenger commuting habits and density. This data enables dispatchers to optimise routes, frequencies, and schedules to adapt to fluctuating demands.

A networking device is required to bridge the connectivity gap between physical endpoints and NaviFleet, essential for creating a unified network infrastructure. However, not just any type will suffice.

The device must not only offer reliable connectivity to ensure immediate data transfer but also support NaviFleet and meet its requirements. Not only that, but given the high volume of public buses, it must be cost-effective. So, how does EcoTelematics respond to this need? It chooses Teltonika's RUT956 mobile router.

TOPOLOGY



THE SOLUTION – LUCKILY, THERE'S NO NEED FOR THEM TO BE BALLOONS

The Teltonika RUT956 mobile router, paired with the TSW010 Ethernet switch, serves as the centrepiece of this solution, seamlessly meeting all its connectivity needs.

The RUT956 is a 4G LTE router that's backward compatible with 3G and even 2G to ensure uninterrupted connection and prevent data loss. Additionally, it has GNSS technology, essential for precise GPS tracking of all public buses.

This mobile router includes four RJ45 ports, with the TSW010 Ethernet switch connected to one of them. The router also features Wi-Fi, which is used for data transmission at designated bus stops. This ensures quick and reliable data transmission from all connected end devices within the network infrastructure, such as IP cameras, passenger information systems, and ticketing terminals.

If the primary mobile connection of the RUT956 4G LTE router falters, it uses its nifty feature – failover. With failover, the router switches to a backup WAN connection, which, in this case, is a second SIM card.

But among all these great features, the true beauty of the RUT956 springs from its core: its operating system, RutOS. It's an essential part of making EcoTelematics' NaviFleet software work efficiently.

Built on OpenWRT, RutOS offers extensive customisation and configuration capabilities; precisely what EcoTelematics requires. Thanks to RutOS, our partner can deploy its software on the mobile router and tailor its functionality to its needs.

By doing so, the RUT956 can collect all data from sensors, IP cameras, and its GPS tracking, and transmit it to EcoTelematics' NaviFleet, equipping dispatchers with essential data to make informed decisions about adjusting transport capacity as needed.

Finally, a truly important aspect of the RUT956 is its competitive pricing. Given the vast number of vehicles in public transportation systems, all requiring reliable connectivity, affordability is a significant consideration in this exact solution, and the RUT956 is sure to promise that.

If you want a true connectivity gem with lots to give, the RUT956 mobile router is a confident choice.