REAL-TIME PASSENGER COUNTING IN PUBLIC TRANSPORT

SUMMARY

Every for-profit company has a goal in common, no matter the sector they are operating in. It is to optimize their day to day business, reduce costs, and increase revenue. To achieve this goal, they need to collect valuable data before making important decisions, however, this objective needs to be addressed in more innovative ways than before. The problem with collecting large quantities of data is that often it becomes outdated before it is applied in decision-making processes, hence the results are not as good as they could be. To stay competitive in the market, real-time data collection for immediate action is becoming a must.

BUSINESS CHALLENGE

So, we established that real-time data is vital in making timely decisions to optimize the operation of public transport. However, the question is what kind of data is important, and how to collect it and share it in real-time to increase effectiveness?

The most important factor in optimizing transport frequency is the number of passengers. Having real-time data as opposed to data from a short window is superior as it allows knowing what is exactly happening at a given time and make adjustments immediately, like adding an additional bus to the schedule to avoid overcrowding, hence improving customer experience. But how does this happen in real life?

Implementing a system that is capable of collecting and sending data in real-time in a constantly moving vehicle requires not just sophisticated counting equipment and cloud-based application, but also - a reliable connectivity solution.

PARTNER - EcoTelematics Group

EcoTelematics Group Oy is a Finnish enterprise that specializes in the development and integration of solutions for the Passenger Transport Industry. The company's focus is to create innovative projects for cost-saving and operational efficiency in public transportation.

NaviFleet Passenger Counting Platform is a solution, which significantly helps reduce expenses, increase passenger safety, and optimize fleet operation.

TOPOLOGY
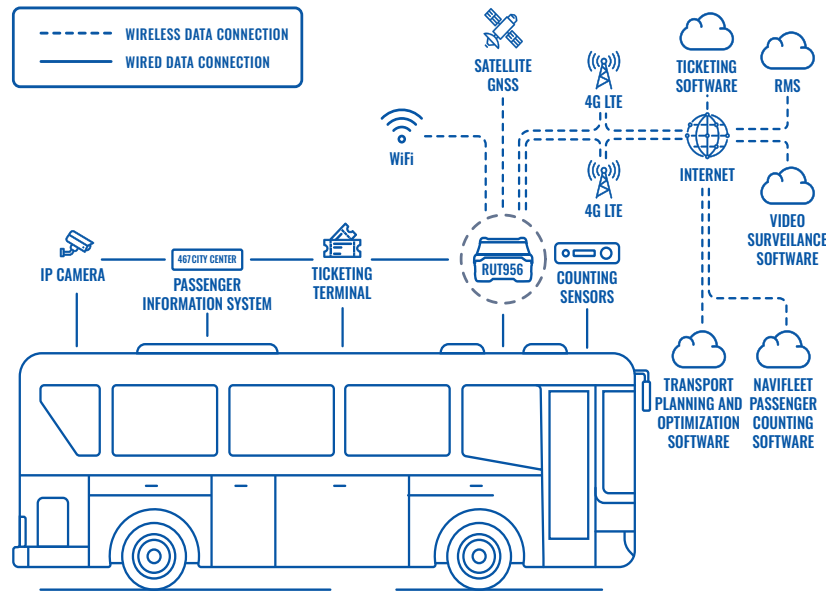
SOLUTION

The NaviFleet APC solution uses of Teltonika RUT956 router for the network. Passenger Counting Sensors are connected over the Ethernet interface and use NaviFleet APC firmware for real-time data collection. NaviFleet APC firmware is compatible with the most well-known passenger counting sensors.

NaviFleet APC Firmware integrated with RutOS OpenWrt transmits passenger counting information to NaviFleet Could Server Software over Wi-Fi or 4G for network continuity. Transmitted data includes accurate GPS tracking information, geofencing data, driving mileage, driving and stop time, and passenger flow data.

Advanced NaviFleet APC Firmware can connect additional devices, such as video IP cameras, breath analyser, Passenger Information System, and ticketing terminals.

BENEFITS

• Cost-efficient - combining NaviFleet APC with RUT956 allows offering a solution at a very competitive price point among others.

• Easy management of the whole solution - cloud-based management platform offers easy captive portal management, connections to counting sensors, and location tracking.

• Multiple connectivity options - RUT956 combines reliable and secure LTE Cat 4, Wi-Fi, Ethernet, and GPS.

• OpenWRT based RutOS - allows to conveniently create different useful applications and comply with the increasing market requirements.

WHY TELTONIKA NETWORKS?

EcoTelematics Group Oy commented on why they chose the RUT956 by Teltonika Networks: "Teltonika Network RutOS software allowed us to create a special firmware for the RUT956 and integrate with NaviFleet Passenger Counting Solutions seamlessly. Together, EcoTelematics Group Oy and Teltonika Networks can assist most Public Bus Operators and Public Transport Authorities using passenger counting solutions to improve their services for passengers and to optimize operations."