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handheld

Efficient Public Transportation with Algiz Rugged Tablets

Using on-board rugged tablets as mobile routers for ticketing and data exchange.

A large European transportation system has deployed hundreds of Handheld Algiz rugged tablets to its public buses — and they're using the tablet's 4G/LTE connection to bring each bus's local network online.

Previously, ticketing systems would store a day's worth of data — such as travel card funds, number of passengers, locations travelled, and quantity of tickets sold — and then sync up with the central server while plugged into a cable overnight. This caused some significant problems, especially for travel card users:

“If a bus is on the road at 6am, and at 7am I fill my empty travel card with money from my home computer or mobile phone, that bus will only have the data from the day before — when my card was empty.

A less understanding driver could remove me from the bus,” says Erik Hansdotter, Product Manager at Handheld Group, who helped implement this solution.

In contrast, buses equipped with a connected rugged tablet can exchange information in real time: each vehicle's server is constantly refreshed with new data from the central server, and on-board transactions are sent to the central system immediately.

Customised, Efficient Public Transport Solution

The transport authority worked with its local Handheld reseller to develop a solution that would keep buses connected all day, wherever they travel.

The Handheld team provided two custom settings for the agency's

new fleet of Algiz rugged tablets: first, they set the tablets to turn on automatically via a powered vehicle dock — when the bus starts, so does the computer. Then they enabled each unit to provide internet connection to its bus through tethering.

Using the Rugged Tablet as a Mobile Router

Here's how it works: every bus in the system has its own small local network (LAN), where data is exchanged between the on-board computer and check-in and check-out points at the bus's doors. Handheld's customised, efficient bus solution allows the Algiz rugged tablet to become a mobile router, sharing its 4G internet connection to the LAN via a plugged-in RJ45 ethernet cable.

When travel card users enter the bus, they scan their cards at the door. Funds are checked and



debited in real time from their online accounts, and transaction and location information are recorded in the central system.

Fare Collection Management

Travellers who don't have a pre-loaded bus card can enter the bus and purchase a paper ticket from the driver. The Algiz rugged tablet is mounted in a locked vehicle dock facing the driver, who can view all the available bus routes and fare lines on the tablet's display.

The driver selects the correct ticket and sells it to the passenger. When the transaction is complete, the ticketing tablet syncs travel data with the central server and sends ticket information wirelessly to a BT printer.

Rugged, Compact and Connected

Vehicle-mounted tablet computers run all day long, enduring heavy use and constant engine vibrations. Each night, climate control systems are turned off and buses are parked – most often in a garage, but sometimes outside.

“Our customer needed a cost-efficient but rugged solution that was also easy to install in a mount, while taking up a small amount of space inside the bus cabin,” Hansdotter says.

All Handheld computers are built rugged – with strengthened glass screens and high protection scores for withstanding strong vibrations, repeated drops, extreme hot and



cold temperatures and dust and water exposure.

Public transportation agencies also like Handheld's Algiz tablets for their numerous connections and communication options.

Along with LTE connectivity, they include a built-in dedicated u-blox GNSS receiver for accurate positioning and navigation. Many transportation customers also add an optional dedicated barcode scanner or eTicket RFID reader for mobile ticketing applications.

Smoother Fare Enforcement and Better Data Tracking

This bus-mounted rugged tablet provides connectivity, efficient and reliable on-board data exchange, smart ticketing, and fare enforcement for buses, trains, light rails, ferries and other public transportation systems.

Keeping fleets connected not only improves driver and customer experiences, but also provides accurate data and valuable travel analytics for operators and supervisors.

Challenge

Enable public transportation vehicles to exchange data with the transport authority's central server.

Solution

Install 4G/LTE rugged tablets with custom LAN tethering settings to route internet connectivity to bus networks.

Result

Real-time data exchange, including travel card funds, ticketing transactions and travel analytics.

Click or scan the QR code to visit our website



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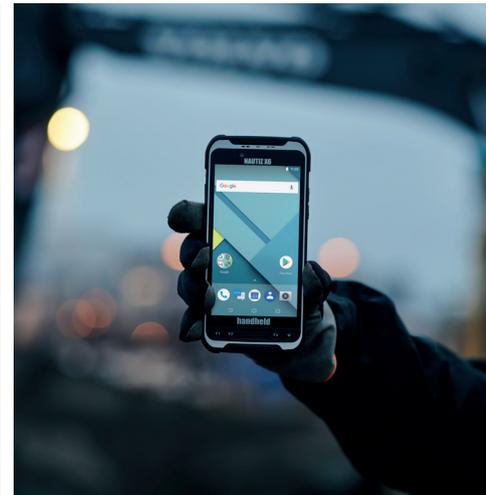
Dave Cawsey

Country Manager UK & Ireland

+44 (0)1926 333 266

d.cawsey@handhelduk.com

RUGGED COMPUTERS FOR TOUGH ENVIRONMENTS



SERIOUSLY RUGGED AND READY FOR ANY FIELD TASK

The rugged computers from Handheld are best known for the combination of high performance and the strength to be able to handle the most demanding field applications.

Laughing off the roughest weather and harshest handling, they are perfect for today's mobile workforce, whether it is checking mobile tickets on board a public transport vehicle, or working outdoors building train tracks, roads and tunnels.

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