



## CASE STUDY

# A rugged tablet for the bus drivers

Bus companies need to ensure their drivers have the right tools to navigate their routes and communicate with remote support. A reliable and durable tablet capable of handling the demanding environment of a bus is crucial for the driver.

This case study will discuss the challenges faced by a bus company in the Netherlands and how they found a solution with a rugged tablet specifically designed for use in vehicles.

Find out how the deployment of this rugged tablet has improved communication, safety and overall efficiency for this bus company.



## Target sectors

- Public Transport
- Freight Transport
- Field Service

## Some benefits

### Rugged Durability

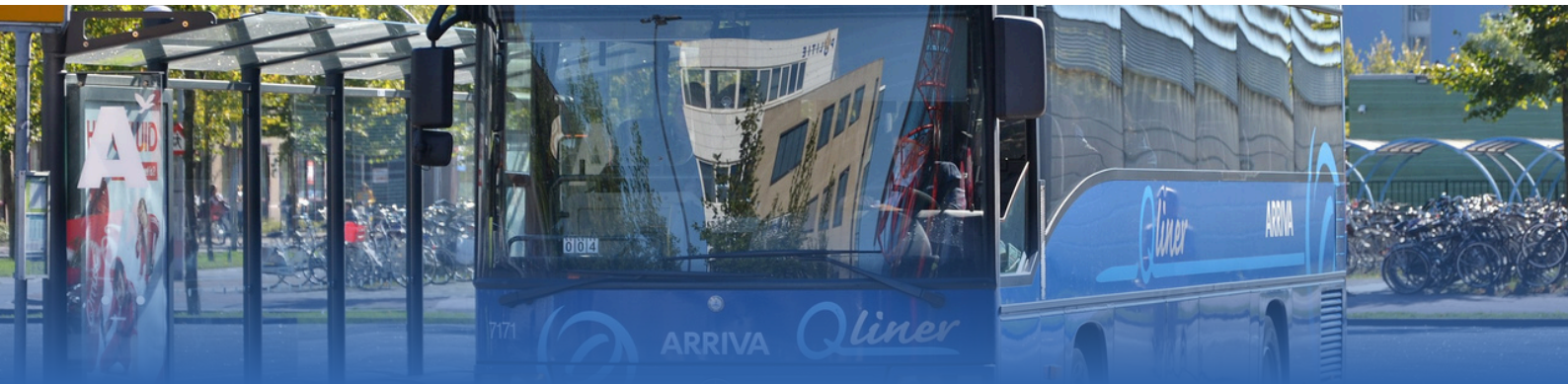
Built to withstand harsh conditions with shock/vibration resistance and IP67 certification

### High-Visibility Display

Clear route tracking in direct sunlight with a high-brightness screen

### Seamless Connectivity

Reliable RJ-45 connection for uninterrupted communication and updates



## The challenge

A bus company in the Netherlands with a large fleet of around 1500 buses needed a robust tablet PC / in-vehicle terminal to guide their drivers on the road. Drivers must be able to follow the navigation of their route through the terminal and must be able to communicate with backend support. Significant hardware requirements included a high-brightness display for clear route tracking, even in direct sunlight and glare. Additionally, the screen size has to be just right (not too big or too small) and the device mounted in the vehicle as a permanent solution, with the connectors and wires neatly concealed behind the panel on board.

In addition, a stable Internet connection is required via a connector RJ-45 and the screen must not fail while driving. When choosing a new solution, it is good practice to choose a solution with the most recent specifications on the market, for example a good, fast processor and the latest Android version. It is also essential for the tablet to be available for several years and to allow for future operating system updates. These updates must be able to be pushed remotely to devices (several at the same time) via a MDM tool.

A terminal intended for use in public transport must also be able to withstand the strong vibrations and shocks associated with driving on the road. This also includes necessary certifications for hardware, such as an E-Mark R10.06 shock/vibration certification and an R118 for fire wiring.

### Robust and Reliable In-Vehicle Terminals

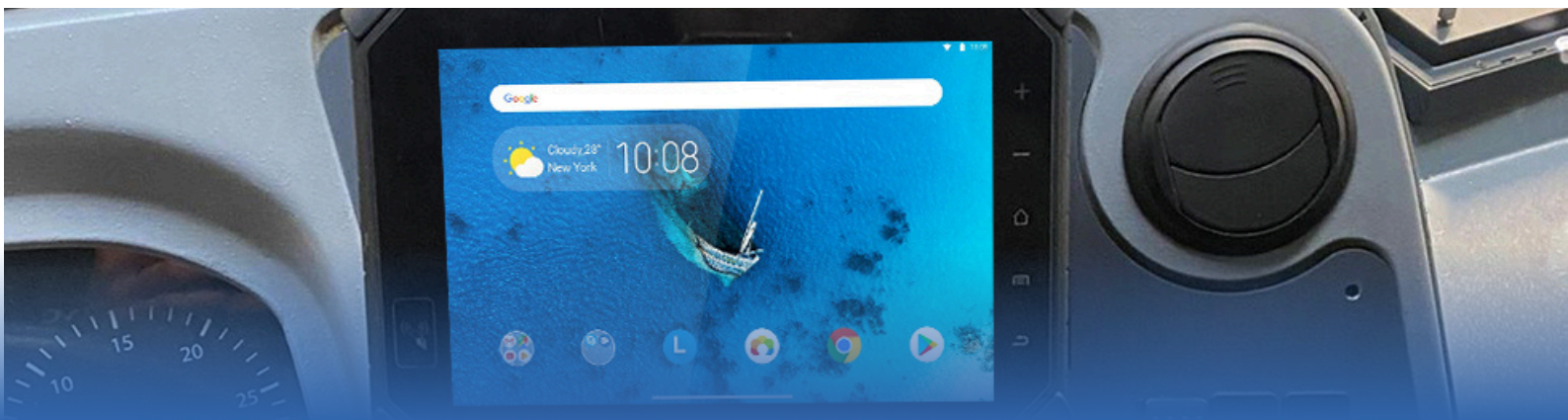
- **High-Brightness Display:** Ensures clear visibility of navigation routes, even in direct sunlight.
- **Durable Design:** Certified for shock and vibration resistance, with concealed wiring for a clean, permanent installation.

### Future-Proof Technology

- **Latest Specifications:** Equipped with a fast processor and the latest Android version, ensuring optimal performance.
- **Remote Updates:** Supports over-the-air updates via an MDM tool, keeping the fleet up-to-date effortlessly.

### Seamless Connectivity

- **Stable Internet Access:** Reliable RJ-45 connection for uninterrupted communication with backend support.
- **Certified Safety:** Meets essential safety standards with E-Mark and fire wiring certifications for public transport use.



## The reaction

eutronix, distributor of rugged hardware solutions, specializing among others in mobility solutions and AIDC, presented the PaceBlade MDT-860 to its partner as the ideal solution for the needs of the bus company.

Based on the requirements and needs of the end user, eutronix has tailored the product to meet their needs. The standard product configuration did not have the correct connectors, so eutronix modified the plinth to make it more robust and suitable for mounting in the bus. The tablet case has also been modified to make it more durable and sturdy. Various software tweaks were also made for the end user, such as providing the tablet in a non-GMS (Google Mobile Services) version and developing a custom boot animation/boot screen.

In addition, eutronix had several value-added accessories specially developed for this project, such as a VCC filter box for audio/noise reduction and a fixed audio input/output connector to connect the vehicle speakers to the tablet.

## The provided solution

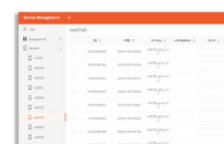
- Android 9 - upgradable to 11
- 8" display
- 4G LTE, Bluetooth and WiFi
- Ultra ruggedized : IP67
- Camera 16 MP
- Special cradle for permanent mounting in a vehicle
- RAM mount accessory included
- 2 year standard warranty on all PaceBlade products
- Extended premium service
- Service contracts for optimal product coverage

### PaceBlade MDT-860 Rugged Tablet for Transport



## MDM Remote Control Portal for PaceBlade

The portal provided with the equipment allows you to control the configuration of the fleet of tablets. Device-related functions can be adjusted or limited via the portal. Android operating system updates can be pushed to devices over the air. This specific portal for PaceBlade devices is Android Enterprise ready, making it easy to manage.







## Custom made accessories



- RJ45 connector



- New slider cradle



- Additional mounting plate



- Fixed audio cable 0.5m



- Mini molex cable 5m

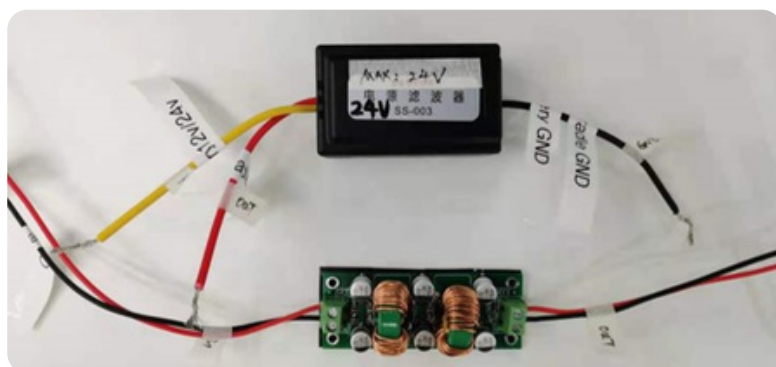


- Fixed audio connector





## Custom made accessories



- VCC filter box with open housing



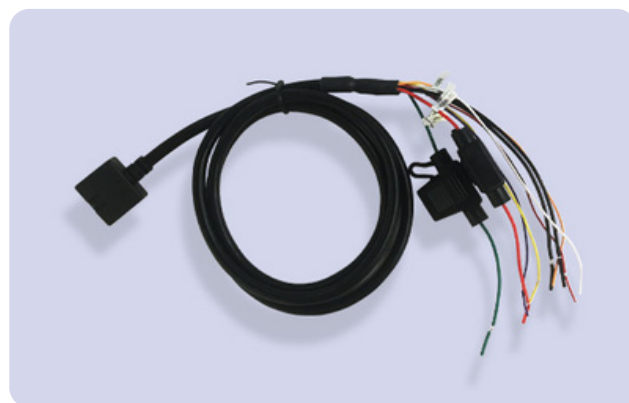
- VCC filter box with closed housing



ECE-R118



- E-Mark R10, R118 certifications as a requirement for use in public transport



- Extension cable for the 5 meter power cord



## Flex service contracts with swap units

For optimal hardware support, eutronix offers comprehensive service contracts on all PaceBlade products, leveraging the expertise of its partner, QMOSS. With QMOSS now integrated into eutronix, our service contracts are fully managed in-house.

eutronix provides certified technicians, original manufacturer spare parts, and a high repair success rate, making us the preferred partner for repairs and maintenance in the Netherlands. Our user-friendly partner portal, available 24/7, allows for easy submission and monitoring of repair requests.

We ensure zero hassle with pick-up and return delivery across Europe, and our flexible contracts can be tailored to each customer's needs, including options like swap units. All repairs are carried out in the Netherlands under a pre-agreed Service Level Agreement (SLA). After a repair request is logged through the portal, we arrange for pickup, repair, and return of the device, with the option to include the desired configuration.



**eutronix**  
**Flex Contract**

All repairs and maintenance carried out by eutronix (in-house).

Partner portal available 24/7, very easy to use, for submitting repair requests and monitoring them.

Zero hassle with the pick-up and return delivery conditions in Europe.

Flexible contracts that can be fully customized for each customer with, for example swap units.







## Benefits

Discover the benefits:

1

### Durable design

- The rugged tablet is built to withstand the tough conditions of public transport, with shock and vibration resistance, IP67 certification, and concealed wiring for a permanent, reliable installation.

2

### High-Visibility Display

- The tablet features a high-brightness display, ensuring clear visibility of navigation routes even in direct sunlight, enhancing driver safety and efficiency.

3

### Future-Proof Technology

- Equipped with the latest Android version and a fast processor, the tablet is designed for long-term use with easy, remote over-the-air updates through an MDM tool.

4

### Seamless Connectivity

- A stable RJ-45 connection ensures uninterrupted communication between drivers and backend support, crucial for maintaining operations on the road.

5

### Custom Solutions

- Eutronix offers tailored hardware modifications, custom software tweaks, and specially developed accessories to meet the specific needs of the bus company.

6

### Comprehensive Service Contracts

- Eutronix provides flexible, customizable service contracts with swap units, backed by in-house repairs, certified technicians, and 24/7 partner portal access for hassle-free maintenance.

#### Enhanced Durability

Rugged tablet design withstands harsh bus environments

#### Seamless Connectivity

Stable RJ-45 connection ensures reliable communication

#### Long-Term Support

Future-proof with Android updates and service contracts

#### Custom Solutions

Tailored hardware and software modifications for optimal performance



## Conclusion

The bus company successfully implemented the proposed solution and is very pleased with the results.

The PaceBlade MDT-860 has proven to be an ideal fit, offering drivers easy access to their routes and essential software applications. The tablet's rugged design and custom accessories are well-suited for the demanding environment of a bus, while the built-in phone call option ensures seamless communication with backend support.

The free MDM tool allows for remote fleet management from a central point, and the service contracts, including swap units, guarantee uninterrupted operation under all circumstances.

### DID YOU KNOW?

The PaceBlade product series of eutronix has been fully designed for the transportation market. In specific, we have custom designed our MDT-860, MDT-801, SDT-121 and LDT-101 product to be used in freight transportation or public transportation applications.

Therefore, all products are fully compliant with the required safety regulations (E-Mark R10.06 and R118 certified).







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### About eutronix

- Dynamic company specializing in hardware solutions and electronic automation equipment
- Value-added distributor
- Founded in 1999
- Headquarters in Belgium
- Branches or subsidiaries in France, the Netherlands and the United Kingdom
- A team of 40+ people

### eutronix's markets

- Healthcare
- Hospitality
- Retail
- Leisure
- Transport & logistics
- Industry
- Access control & people identification
- Signalling
- Field service
- Oem & IoT