CASE STUDY

VEHICLE FLEET MANAGEMENT IMPROVED WITH RFID

RFID-based user authentication and access control improves fleet security and links drivers to data.

REQUIREMENTS

Astus offers fleet management solutions to help their global customers improve productivity, monitor driver behavior and improve security and compliance. They wanted to include RFID in their hardware and software systems for companies managing commercial vehicle fleets. RFID readers would allow drivers to access the vehicle with their company ID card to improve security and match drivers with telematics data and billing and payroll systems.

Astus TAG units store up to 10,000 driver and/or passenger RFID cards.

BENEFITS

+ Enables user authentication from multiple employee RFID badge technologies
+ Can be programmed for a variety of use cases
+ Supports remote configuration and updates

PRODUCT: TWN4 MULTITECH

+ High quality and durability
+ Simultaneously reads 60+ transponder technologies
+ Available with a durable high-temperature housing
ELATEC recommends the TWN4 MultiTech, a powerful, flexible RFID reader/writer that can simultaneously read 60+ card technologies and is certified for use in numerous countries around the world.

**For more information, visit:**
elatec.com/multitech

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**SITUATION**

Mario Massicotte, Vice President of Sales and Marketing at Astus, explains, "One of the core functions of our fleet management systems is to help our clients manage and entice better behavior from drivers. We provide telematics data that allows them to monitor driver performance. They use that data to improve safety and reduce fuel consumption and maintenance cost. The capability to accurately match the user with the asset is key to what we do."

RFID readers would allow drivers to access the vehicle with their identity card for improved security and fast and automatic user authentication. Astus wanted a reader technology that would integrate seamlessly with their software systems so that drivers could be matched with their telematics data and interface with customer’s time, attendance and payroll data. It also needed to be able to read a broad range of card technologies to accommodate all of their customers—including customers who were not sure which card technologies they were using.

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**CHALLENGE**

Because their telematics solutions were sold to a broad range of customers, Astus wanted to find a single RFID reader solution that could read all of the different card technologies used by their customers. The readers had to be easy to configure and remotely updatable for a large distributed fleet of vehicles. They also needed to be robust enough to integrate seamlessly with their telematics tracking modules. Finally, the reader had to hold up to extreme temperatures and other rugged conditions on the road.

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**SOLUTION**

The ELATEC TWN4 MultiTech offered the flexibility and versatility to accommodate 60+ card technologies simultaneously, enabling the reading of virtually any card their clients used with a single part number solution. The reader is wired directly into a telematics tracking module that provides power and communication to back-office software. A durable high-temperature housing stands up to the heat in parked vehicles.
ELATEC RFID readers ensure that only the authorized driver can access the vehicle and links the driver’s identity to the telematics data collected by the unit. Astus developed a custom program that supports remote, mobile configuration so they can easily update the readers even while vehicles are out on the road. This allows for a fast and easy process and eliminates the expense associated with sending technicians out for manual upgrades. Paul Mainville, an Engineering Manager at Astus, says, “This is a key capability for us, as our readers may be installed in a vehicle or location on another continent, making it logistically impossible for us to physically go to each RFID reader and manually update the firmware.”

Massicotte says that Astus chose ELATEC readers because they were reliable and offered the flexibility they needed to integrate the readers with their systems and support custom software development. “ELATEC readers are very easy to deploy, reliable, and support all of the different formats that our customers use. At the end of the day, they just work.” Mainville adds, "The ELATEC API (Application Programming Interface), which is provided free of charge, enables Astus to evolve our user authentication solution beyond simply reading an ID number. We can use the API to develop more extensive and customized solutions to a wider range of customer’s usability.”

Several thousand Astus units containing ELATEC readers have already been deployed to satisfied fleet management customers. For more information on Astus visit: astus.com

ELATEC is a worldwide leader in designing and manufacturing highly configurable RFID readers for user authentication in access control and authorization applications. Their multifunctional readers can be programmed to support a broad range of RFID, NFC, and Bluetooth Low Energy technologies and applications.