

# Bioaccez Controls/ Compagnia Trasporti Pubblici di Napoli (CTP) Bus Depot Access Control

## Case Study



### Wavetrend Solutions Partner

Bioaccez Controls, based in Spain, delivers innovative solutions for access control, time and attendance, asset management and anti-theft devices. The key to Bioaccez's success is its workforce of talented professionals with an international outlook, who work enthusiastically to improve the quality of their products and to provide customers with exceptional service.

Bioaccez aims to further the adoption of cutting-edge technologies, such as biometrics and RFID, to improve operational efficiencies, particularly as they relate to access control and time and attendance initiatives, and ultimately deliver solutions that generate optimal business performance for their clients.

### Business Challenges

Compagnia Trasporti Pubblici di Napoli (CTP) is the primary municipal transport authority in Naples, Italy, maintaining a fleet of 454 ecological buses (methane powered) that are licensed for 132 bus routes. As a transportation provider, CTP has shown a willingness and capacity to effectively employ innovative technologies to improve its operations and service.

With a constant stream of buses in and out of its urban depot, CTP needed to regulate access to its facility to provide site security and ensure that drivers were performing their daily routes in strict adherence to the designated schedule.

### Solution

Combining their software engineering expertise, experience in access control, and industry-leading active RFID technology, Bioaccez and Wavetrend designed a custom solution to provide uncompromising access control and sophisticated monitoring and reporting. The project was overseen by Consorzio Nazionale Sicurezza (CNS), a Naples-based systems integrator specializing in security installations.

Accessing CTP's depot requires buses to pass through two entry barriers. Each of the checkpoints was equipped with Wavetrend RX201 readers connected to Bioaccez's FLAT 433MHz antennas to increase the read range. This allows the readers to remotely recognize the tag of an approaching bus, verify its access authorization, and automatically open the gate to permit entry.

All CTP buses are equipped with Wavetrend TG-800 tags, encoded with a unique identifier and affixed to the bus windshield. The tags are tamper-proof and permanently secured to the vehicles to ensure that they are not compromised or stolen. Previously, access to the depot was regulated through use of proximity cards issued to the drivers. Security under the prior system was not ideal as the proximity cards were susceptible to loss or theft. Additionally, CTP found that drivers would often loan or exchange their cards, undermining efforts to track bus route performance. By applying Wavetrend's

rugged vehicle tracking tags, Bioaccez was able to guarantee tracking integrity for each of the buses.

Authentication occurs through the use of Wavetrend L-PA100 interface which converts the data transmitted by the FLAT antenna into Wiegand access protocol so that it can be understood by Bioaccez's OMNIA controller. The OMNIA controller communicates with software, Transeo, that provides the central control for the access control system. This entire process is instantaneous so that authorized buses are immediately granted access, and monitoring of the fleet occurs in real time.

Additionally, the new system supplies CTP with a valuable tool to help manage its most important performance criteria – whether or not their buses are on time. The readers positioned at the checkpoints not only authenticate each bus, but they also log the arrival and departure times to help management effectively evaluate compliance with the targeted timetable for each of its routes. Through Transeo, CTP can run reports that highlight areas of concern, providing accurate, actionable information that can be used to manage bus routing and driver shifts.

The multi-purpose nature of the technologies supplied by Wavetrend and installed and maintained by CNS has allowed CTP to restrict access to its depot to only authorized vehicles, while at the same time providing essential data to guide their route planning and personnel scheduling.

### Results

- Secures CTP's depot by establishing an automated access control system to authenticate all vehicles attempting to gain entry
- Permanently affixed tags cannot be compromised, dislodged, or exchanged between drivers
- Provides CTP with actionable information for more effective management of its bus routes and personnel
- Expandability of the system allows it to grow with CTP

### Customer Comments

*"The system installed by Bioaccez and Wavetrend has helped immensely in our continuing efforts to increase the efficiency and reliability of the service we provide to our customer – the CTP – and all its users."*

- **Ciro Vecchiarini**  
Technical Director, Consorzio Nazionale Sicurezza



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