

CASE STUDY

TRADE FIDES: A SMOOTH MIGRATION TO HIGHER SECURITY



Physical Access Control

MODERNIZING PHYSICAL ACCESS CONTROL FOR THE CZECH ARMED FORCES

Trade FIDES is a leading supplier of comprehensive, integrated security systems both in the Czech Republic and abroad. The Czech Armed Forces are a long-time client for asset and data protection. When they needed to modernize their access control systems, Trade FIDES turned to ELATEC for a smooth transition between technologies.



REQUIREMENTS

The reader needed to:

- + Provide a high level of security appropriate for military applications
- + Support multiple existing transponder technologies with a unified solution
- + Address future application requirements (e.g., NFC, BLE, Mifare DESFire EVx, iClass)
- + Meet the ISO 14443 contactless card standard

BENEFITS

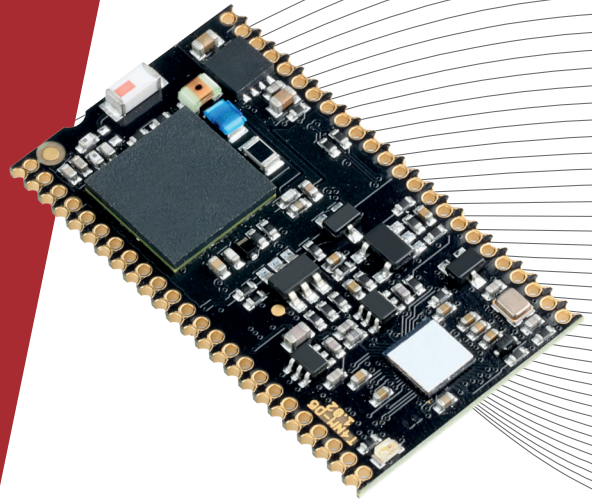
- + An "universal" RFID reader enabled a smooth migration between legacy and modern transponder technologies
- + A secure, encrypted access control system provides a high degree of protection for sensitive areas, equipment and information

PRODUCT: ELATEC TWN4 NANO

- + High quality, durability and security
- + Reads 60+ transponder technologies including NFC and BLE
- + Very compact size; suitable for OEM integration in devices and systems
- + Compact, one-piece board for easy OEM integration
- + Supports all common 125 kHz and 13.56 MHz RFID technologies as well as NFC and BLE
- + Configurable via contactless CONFIG card or remote upgrade
- + Powerful API and 18 kb on-board flash memory

For more information:

www.elatec.com



SITUATION

Trade FIDES has provided cutting-edge integrated security solutions for their armed forces clients for many years. In addition to monitoring, alarm and CCTV systems, FIDES has developed their own solution for physical access control (PAC) called "ASSET." It controls access to protected areas, equipment and information based on defined access rights. The most commonly used means of identification are personal identification cards, which are used for authentication via RFID readers. Depending on the level of security, other technologies may also be used in combination, such as biometric readers (e.g., fingerprint, palm geometry, facial recognition systems).

For years, the PAC solution for the armed forces was built on older low-frequency (LF) technologies. These technologies no longer meet today's security requirements, particularly for military applications. Trade FIDES needed an easy way to migrate their client from legacy technologies to a newer, high-frequency (HF) standard that enabled a higher degree of security.

CHALLENGE

Trade FIDES needed a solution that would work with both the legacy LF tags and the newer, more secure HF transponder technologies. The solution had to be adaptable to meet changing requirements in the future, such as the addition of Mifare DESFire EVx or mobile credentials using Bluetooth® Low Energy (BLE) or Near-Field Communication (NFC). It also had to meet the client's security needs, which included encryption of the signals between the transponders and the readers.

A representative from Trade FIDES explained, "We faced a situation when our old product didn't meet our needs. For example, support of NFC and BLE. So, we decided to create a new solution based on the newest technology, and we were looking for all-in-one solution with a stable partner. Also, we had a need to have backward compatibility with all supported RFID transponders and badges. And in future, we want to be able to have the option for easy updates to keep the security level up to date."



SOLUTION

Trade FIDES selected the TWN4 MultiTech Nano to replace their existing readers in their ASSET 6XX access control card readers. Now, their PAC system supports all RFID standards in addition to BLE and NFC. This enabled their armed forces client to transition easily to the new technology, as both legacy LF technologies and new HF technologies can be used in parallel during the rollout.

The TWN4 MultiTech Nano supports advanced encryption for an extended layer of security. The RFID reader is suitable for use in Intrusion & Hold-up Alarm Systems (I&HAS) and physical access control systems with strict security requirements. It also meets the ISO 14443 contactless card standard. RFID readers may be used in conjunction with biometric systems for the highest level of security.

In the future, armed forces client will be able to easily adapt their ASSET access control systems for emerging technologies and functionality requirements. The TWN4 Nano can be upgraded via a contactless CONFIG card or secure remote upgrade, making it simple to maintain widely distributed access control systems. With support for BLE and NFC, the readers can even enable authentication using a mobile phone or smart-watch. This universal, “future proof” solution will allow Trade FIDES to meet the evolving needs of their armed forces clients for many years to come.