

## CASE STUDY

HANDHELD BADGE VERIFICATION AND EMERGENCY MUSTERING SOLUTION ENABLED WITH UNIVERSAL RFID READER



Mobile badge readers perform identity authentication, record entries and exits where door readers are not practical.



## REQUIREMENTS

Telaeris required a powerful yet highly compact embedded RFID reader for its XPressEntry handheld multifactor access control solution. The reader had to:

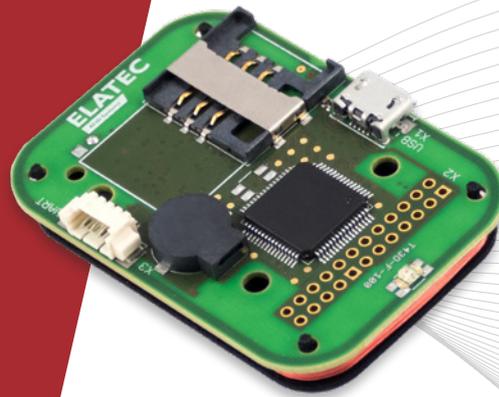
- + Read an extensive array of card technologies used in the security industry
- + Have a very small form factor for embedded integration
- + Be easy to reconfigure to support customers deploying new badges or functionalities
- + Support storage of secure application keys inside the reader

## TWN4 MULTITECH 3 MODULE

ELATEC recommended the TWN4 MultiTech 3 Module, a compact and powerful RFID reader/writer with flexible architecture and open API that can accommodate 60+ card technologies.

**For more information:**

[www.elatec.com](http://www.elatec.com)



## SITUATION

**Telaeris** is a US-based security and safety solutions company, specializing in handheld readers for physical access control, emergency mustering, and identity validation. Telaeris' XPressEntry is a hardware and software solution that seamlessly integrates with any access control system, providing rugged handheld devices capable of reading any badge technology, plus biometric authentication. When developing their XPID handheld badge readers, the Telaeris team required an RFID reader with a small form factor for their next-generation handhelds. It also had to be future-proofed by being able to read more badge technologies than any other handheld in the industry including SEOS, iClass, Prox, Indala, DESFire EV2, and PIV and simultaneously poll for both HF and LF credentials. Additionally, the reader needed to be able to secure sensitive customer information.

## CHALLENGE

Telaeris has deployed handheld badge readers for more than a decade. The company started with its first handheld device by building their own custom ultra-small embedded RFID module to read HID cards. As their products matured, Telaeris purchased a wide range of embedded RFID readers from a variety of vendors to support the wide variety of badges in the industry. Unfortunately, each RFID module required custom integration and development, which was time-intensive. Worse, it only worked with a subset of card technologies.

The use of ELATEC's TWN series modules solved several problems instantly for Telaeris. With the ELATEC module built into their XPressEntry handheld, Telaeris could support more than 95% of the badge technologies in the security industry and read multiple card formats simultaneously. And as the modules are field upgradable, when customers ask for additional capabilities, changes can be deployed remotely with little downtime.

Recently, a customer was using the Telaeris XPressEntry system to validate employees using the ID of their secure DESFire EV2 card. The customer requested an upgrade of their system to add multi-factor biometric validation using an integrated fingerprint reader in the XPressEntry reader. Telaeris was able to quickly upgrade the ELATEC module firmware to read the fingerprint template, compare this to the live finger presented to the reader, and then provide the activity to the back-end access control system.

The flexibility provided by the capabilities of the Elatec module sped the development and deployment of this custom application, reducing the cost to the customer and improving Telaeris' bottom line – truly a win-win.

**“The benefit of the ELATEC reader platform is that it is an embedded computer as well as being a very capable RF front end. This means all communication back and forth to a credential can be processed internally to the module, increasing the speed of reading complex badge data and keeping confidential data secure.”**

– David Carta, Ph.D., CEO, Telaeris

## SOLUTION

The ELATEC TWN4 MultiTech 3 reader module met Telaeris' requirements and more. The reader is configurable for all major card transponder technologies globally—more than 60, maximizing their market opportunities, eliminating inventory complexities and helping them better serve customers using multiple technologies. With its flexible architecture and open API, the TWN4 MultiTech 3 module can be remotely reconfigured to activate new card technologies or upgrade firmware to meet emerging security and functionality requirements. For Telaeris and its XPressEntry product line, security is a priority. The secret keys to access credentials are stored securely in ELATEC's reader and never leave, allowing identity badges to be simply presented to read customer secured data.

Telaeris' XPressEntry is the industry-leading handheld reader solution that seamlessly integrates with world-class security systems existing at most schools, businesses, and government facilities. And by using the TWN4 MultiTech 3 RFID reader module, they can provide secure, reliable user identification and access control to help its customers ensure staff authorization, access control and safety.

**“We really like the team at ELATEC both technically and personally and enjoy solving problems with them. As top-notch customer support is one of the things we pride ourselves on at Telaeris, it is great to have technology partners like ELATEC who do the same.”**

*– David Carta, Ph.D., CEO, Telaeris*



### PRODUCT: TWN4 MULTITECH 3 UNIVERSAL RFID AND NFC READER/WRITER MODULE

- + Compact yet powerful RFID performance
- + Supports all current RFID standards for the frequency ranges 125kHz and 13.56 MHz, and NFC for smartphones
- + Designed for space-savings (50x35x7mm / 1.97 x 1.38 x 0.28 inches)
- + Supports remote (re) configuration over a network and/or over a wireless interface with CONFIG Card
- + Certified for use in numerous countries globally

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