



Secure Log-On Using the AET62 for Rail Ticketing Operations



Overview

Biddcom Software Pty Ltd., a company specializing in custom software, required an access control device, to be incorporated into its solution for a passenger rail services company in South Africa. For this, Biddcom chose Advanced Card Systems Ltd. (ACS), which proposed the AET62 NFC Reader with Fingerprint Sensor.

The AET62 is currently being used to secure a ticketing system used for selling, issuing, and printing fare tickets in South Africa.

The Challenges Faced

Biddcom needed a convenient way to guard its system from threats or attacks associated with PCs or the Internet. For log-on to be fast, the solution must offer contactless support. For security to be high, it must offer multi-factor authentication. In this case, Biddcom wanted secure log-on to entail a verified fingerprint, in addition to a contactless smart card. Finally, the device must offer Linux support.

The Scope of Implementation

The AET62 currently verifies more than -3,500 ticket sales operators. The enterprise system covers country-wide ticketing, through 700 sales windows throughout South Africa. The project is expected to generate more potential, as AFC gains a stronger foothold in the region.

The Solution

Ticket sales operators are issued an ACS ACOS3 Microprocessor Contactless Card, which serves as their employment ID. Each ID contains an operator's confidential information: system ID, password, fingerprint template, and so forth.

To log on, a ticket operator has to place his card on the AET62, slide his finger on the AET62, and then wait for confirmation that his fingerprint matches the template stored in the card.

After secure log-on, ticket operators can then sell and print train tickets.

The Benefits of Using AET62 NFC Reader with Fingerprint Sensor

By using the AET62, Biddcom was able to acquire the following benefits for its system:

- High-level security
 - Three-factor authentication makes it hard to gain access to the system. Currently, secure log-on requires from an operator his contactless card (something he has) and fingerprint (something he is). Should even tighter security measures be required, the AET62 can also be used to verify PIN/passwords (something an operator knows).
 - Match-on device feature confines fingerprint data within the reader, to protect it from threats and attacks associated with PCs or the Internet.



- The AET62 can distinguish between a dead and a live finger, making biometric fraud harder to commit.
- Easier deployment and maintenance
 - The AET62 requires no databases, servers, or network connectivity. Fingerprint extraction, enrolment, and matching all occur within the reader, while fingerprint templates are stored and encrypted in the operators' IDs.

About ACS

Advanced Card Systems Ltd. (ACS, wholly owned subsidiary of Advanced Card Systems Holdings Ltd., SEHK: 8210), founded in 1995, is Asia Pacific's top supplier and one of the world's top 3 suppliers of PC-linked smart card readers. ACS is the winner of the Product Quality Leadership Award for Smart Card Readers from Frost & Sullivan. In 2010 and 2014, ACS was listed in Forbes Asia's "Best Under a Billion" list, an inter-industry list comprised of 200 top-performing publicly listed companies in the Asia-Pacific, with sales between US\$5 million and US\$1 billion. ACS develops a wide range of high quality smart card reading/writing devices, smart cards and related products and distributes them to over 100 countries worldwide. Visit ACS at <http://www.acs.com.hk/>.