

Safer future with biometrics

Stolen or usurped passwords and cards can be a problem for the security of access control within high-risk sites. This is one of the reasons why biometric scanning – identification based on fingerprints or other distinguishing features – is being hailed as a security system of the future.

For the past 15 years or so, Gunnebo has been considering these new risks to build its security approach.

Biometric technology means that a person's unique distinguishing features can be used for identification and verification. A number of years ago biometric technology began being integrated into systems for surveillance and access control, with the aim of protecting high-risk sites such as nuclear power plants, airports, industrial sites and other installations in need of high security or dealing with cash. In Europe the technology is now used to reinforce security at airports, border control for the Schengen area and at major sports arenas, where it may be necessary to locate, identify and record individuals rapidly at the entries.

FOLLOWING THE 2001 terror attacks, the US introduced requirements on passports with biometric information for all 45 nationalities who have access to the US without a visa. The US Department of Defense is planning to supplement all entrance control with biometric systems by 2010, and the International Civil Aviation Organization, a UN agency, also recommends that every country in the world should introduce passports with biometric data.

For physical access control, the main

biometric technologies available are hand geometry, face recognition, voice and fingerprint. The implementation of a biometric technology depends on reliability, the acceptance level among users, the effect of ageing and environmental issues.

In fact, according to the IBG, Biometric Revenues by Technolgy published in 2009, biometrics on fingerprint represents the main technology used (around 28 per cent of the biometric revenues).

GUNNEBO'S RANGE OF PRODUCTS and applications in the field of biometrics span from basic systems for entrance control to biometric scanners integrated into a network of entrance points.

"Biometric technology is improving the level of security and the flow of people compared to smartcards and PIN numbers. We have opted for solutions based on fingerprints, which we began using in 2001," says Francis Deneu, Product Line Manager for Gunnebo Electronic Security.

The use of biometric recognition at airports makes it possible to tighten security while simultaneously simplifying many people's passage through the system, for example with automatic verification that the person boarding the aircraft is the same person who checked in. Security controls for employees can also be fully automated.

"In terms of benefit, the fingerprint method is the most suitable today. It's the predominant technology on the market and we can use hardware and software that have been proven for many years."

GUNNEBO HAS DEVELOPED an integrated solution for its targeted sectors with reliable high-security components

such as pass cards, scanners and local processing units.

Gunnebo has settled strong partnerships with leading companies to offer the best technologies for both equipment used in sensors and associated algorithms.

Based on SMI Server, its security supervision system, Gunnebo provides a high level of integration with biometrics systems and also a user platform for enrolment and verification for the biometric parameters. This global solution enables benefits such as the ability to choose between identification or authentication methods, the adaptability of the parameters and monitoring functions for the biometric readers, all using the same unique database for the access control system.

Gunnebo is monitoring promising new technologies such as finger vein, iris and face recognition.

DEVELOPMENTS ON THE SECURITY market show that however the technology is used, the integration of biometrics is considered an important aspect of security at the highest level.

"Integrated solutions grow up to 15 per cent per year and represent an important asset to high level security. An integrated solution provides simple exploitation for user management, enrolment, ID management, configurations (parameters) and real-time exploitation.

"There is tremendous market potential. The private sector (around 35 per cent of demand) such as banks, retail and the chemicals companies, industry sites, as well as in the public sector (around 65 per cent of demand), such as authorities and prison services," Francis Deneu concludes. ■

TEXT: ERIK SKÖRDÄKER





FACTS

- Can be based on scanning fingerprints, the iris, face shape or lines on the palm of the hand.
- Biometrics can be based on applications that allow identification (1:N technology): the system recognises a particular user from a number of registered subjects. The biometric information is matched with templates in local or external database.
- Biometrics can be based on applications that allow authentication (1:1 technology): the user's biometric information is stored in the smart card and matched locally by the system.

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