

## AEOS & Biometrics

*Biometric Identification or verification has become a mature technology and is widely used in access control systems to improve security and convenience. Nedap is closely working together with major suppliers in order to achieve a seamless integration in AEOS. Biometric technology is still improving and also new technologies come to the market. This means that integration of biometrics is a dynamic process and is subject to changes.*



### **AEOS & biometrics**

The Nedap AEOS system provides a high level of integration with biometric systems and also a user platform for enrolment and verification of the biometric parameters. Integration in AEOS means that all advantages of AEOS with respect to storage, backup of data and multi site functionality are also available for the biometric ID.

### **Why Biometrics?**

Biometric identification enables companies and organisations to verify the identity of individuals with a high degree of certainty. For that reason, it was first used in typical "high security" environments such as military installations, nuclear power stations, airports etc. Examples of biometric ID systems include: iris, hand, finger and face recognition. With the arrival of user-friendly and affordable systems, you may find many other biometric applications in our day-to-day surroundings, such as sports facilities and gymnasias. Biometric Identification today is more and more an essential part of access control. In most cases however the biometric ID system is not really integrated in the overall access control system due to many biometric ID systems not providing an open interface to other systems. Furthermore, many access control systems do not provide the functionality to incorporate biometric ID. Fortunately, this is all changing now, with Nedap AEOS security management solutions leading the way.

### **Identification or verification?**

#### *Biometric Identification*

In applications where ID badges are impractical such as saunas swimming pools, but also where ID

cards are simple felt as inconvenient persons can be recognised just by showing a biometric parameter e.g. a finger. The improvement of biometric recognition technology enables biometric identification to be successfully implemented in access control systems. Just place your finger or show your face and you are allowed to enter.

#### *Biometric Verification*

When more security is required Biometric verification will enhance security by checking if the person carrying the ID card, really is the legitimate user. Verification is started when a registered person shows an ID card. This can be the Nedap XS card, or another type of ID card. After presenting the card, the user has to show a Finger, Hand, Face or Iris. The biometric system processes the data within seconds and if the verification results in a positive match, access can be granted.

### **Biometrics in AEOS**

A full integration of biometrics in AEOS is the optimum way of using biometrics in access control. After registration of a person in the AEOS system, the biometric enrolment is done at a biometric reader connected to a client PC containing the AEOS software and the embedded biometric enrolment software. After enrolment the template is distributed to the connected biometric readers in the Access Control system. The enrolment user interface is fully integrated in AEOS and is based on the biometric vendor's enrolment software tools. The new templates and other enrolment data is stored in the Access Control system's database and are linked to the person's ID. If necessary the new template can be verified against all templates in the database to prevent multiple enrolments (enrolment of the same person under two or more different names).

# The biggest biometric system in Israel

*The Israel Diamond Exchange has chosen a technologically advanced security system to replace their current system. The solution consists of an integration of biometric controls in AEOS. It allows the Exchange to maintaining a high level of security, complete control and flexibility.*

## Israel Diamond Exchange Facts

**Founded:** 1930s

**Members:** 2500

**Housing:** 22,000 m2 of offices in 20 stories of diamond dealers in the Diamond Tower, 12,000 m2 of offices in the Shimshon building and 23,000 m2 of offices in the Maccabi building

**Business:** The Diamond Exchange creates a business framework for its members to manage their affairs with maximum convenience and security



## State-of-the-art office

The Israel Diamond Exchange plays a central role in the diamond industry. The complex houses around 1,000 offices of diamond traders and offices that belong to industry institutions. Everyday thousands of people rush through the corridors of the high-rise buildings of the complex in Tel Aviv. All these people rush through the lobby and to the offices where they expect to do business. High security and traceability, together with fast entry procedures and comfort are crucial for the operation of the Exchange.

## High security

Due to the value of the products traded in the offices, security plays a major role. Security personnel has to be able to check and control the flow of people and they must be pointed to any irregularities. To strengthen its security, the Diamond Exchange was searching for a solution to upgrade their existing security system. They wanted a state of the art system for biometric access control and intrusion alarms.

## Nedap AEOS & biometrics identification

To make this possible, the Israeli business partner ORAD offered a sophisticated solution based on of the AEOS security management system combined with integrated biometric identification. Division Manager Rami Zarchi from Orad Control Systems Ltd. Says: "IDE was looking for a solution to increase the security level, but it had to be as fast and smooth as possible".

## All about procedures

The biggest challenge in a project of this complexity is controlling the flow of people according to the different entry procedures. Thanks to the AEOS behavior components ORAD has been able to build a solution that was tailored to the special entry procedures of the Diamond Exchange. One by one, the people entering the building move through the lobby along special routes, place their finger on an identification device and move on. There is no need for delay. Security personnel in identifiable uniforms walk around. All entrances and exits are monitored in a central command and

control room. Security officers receive updates about any irregularities directly to a mobile phone screen or their hand-held computers. Everything happens fast and smoothly, on a daily basis.

## Always up-to-date security procedures

In high security environments like the Diamond Exchange, you're always trying to maintain the highest possible security standards. This would normally put a major burden on your system if you're not looking for a replacement every couple of years. The split of hardware and software in AEOS, makes it possible to keep up the pace, because you can keep your system up-to-date with the latest state-of-the-art software. The system server contains an extensive library of specific software components designed to manage the behavior of the various checkpoints, from a simple doorway via complex barriers and up to an intruder detection system. These are distributed to the checkpoints immediately as required by the security system administrators. This makes it easy to adapt and upgrade the security procedures as required.

## Prestigious project

This prestigious project is the first of its kind. In fact it is the biggest biometric project in Israel. The system performs identification and verification by means of fingerprint readers installed in a large number of entry and exit points at the site. This allows quick and smooth access free of delays. Similarly, the biometric security system will also meet the requirement for checking entry for visitors supplied with single-entry permits.

## Ideal solution

This integration of biometric controls in AEOS is a perfect solution for many business organizations – maintaining a high level of security, definite identification of all those entering their doors and complete control of everything that is happening while removing delaying obstacles and offering the possibility of a flow of over ten thousands of people moving through every day.

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