

The biometric imperative

In May 2014, eBay was forced to ask 145 million of its users to change their passwords after a major hacking attack. In August 2014, a Russian gang stole 1.2 billion passwords from an array of websites across the globe. Late 2014 saw the South African Banking Risk Information Centre (SABRIC) reveal the gross credit card fraud losses to have risen by 23% from R366m in 2013 to R453.9m in 2014.

Security remains a priority for the organisation, and biometrics is rapidly becoming the solution of choice. It is secure, robust, scalable and adaptable, plus it delivers undeniable proof of access.

The advantages of biometrics



Igor Stevanovic via [123RF](#)

"With other identity verification methods, there is a chance of misrepresentation or fraudulent credentials," says Gregg Sarraïl, vice president Solutions Business Development Biometrics Lumidigm brand, at HID Global Corporation. "The use of biometrics ensures that the person who is accessing the system is who they claim to be. Passwords and PINs can be shared or guessed, cards can be transferred or faked, tokens can be stolen. Only a biometric authenticator can provide a non-repudiated record or access."

Biometrics has another advantage beyond the individual - convenience. There's no need to carry another device, an identity book, a PIN number or a token. All of these forms of identification are already carried by your wrist and your hand - your unique fingerprint.

There are, of course, a number of alternative forms of biometrics that are growing in popularity such as voice and eye, but one of the most common is that of the finger and its individual markings.

The simplicity of biometrics

"The user interface is simple and requires no more than the touch of a finger to validate an identity," says Nick Perkins, divisional director, Identity Management at Bytes South Africa. "Fingerprint data is stored as a template - a mathematical representation of various unique elements within a fingerprint image. These templates are then encrypted and attached as an attribute to an individual's identity. When compared to other identity documents, such as a driver's licence where name, address, height, weight, eye colour and other such information is visibly available, biometrics keeps the information private and only shares what's relevant to verify an individual's identity."

For the organisation this not only ties in neatly with some of the strictures outlined by the Protection of Personal Information Act (POPI), but it offers the highest level of security for identity verification. This can have extended benefits across time and attendance management (for payroll), account origination so no one person has multiple accounts under different names, welfare or healthcare disbursement to ensure the correct benefits go to the right person, and government identification documents such as passports and national identity cards. The latter playing a vital role in the mitigation of fraud.

"Reliability is essential for certain applications and is especially critical in unattended use cases," says Perkins. "For example, a biometric sensor that is integrated into an ATM machine needs to work every time. Performance is critical when the device is standing between an individual and their money. Whatever the authentication method, it needs to ensure that it works with all people, all ages, all ethnicities and under all conditions."

A cost-effective and convenient solution

Biometrics offers a highly cost-effective solution that takes away the longer term maintenance costs of card based systems.

It creates a platform that can be fully explored by an organisation and adapted to unique use cases, ensuring a targeted and convenient layer of security that fits the requirements of the business. Physical access control for employees biometrically can be expanded to include biometric access to the network as opposed to a user name or a password, and this can be further extended into secure biometric logins and supervisory approvals.

"Biometrics ensure a greater level of authentication for the organisation," concludes Sarraïl, "Softer benefits include cost centre allocation of printing to the correct department and biometrically approving charges to an account in the canteen. The solution is convenient, scalable and reliable, making it both convenient and capable of adapting to suit specific business requirements."

Perkins adds: "In South Africa, banking and retail customers want more security and are comfortable leveraging biometrics. In fact, they will pretty much do anything to limit their own exposure to fraud. The numbers released by SABRIC have increased dramatically and are a challenge for the banking and retail communities, and a real inconvenience for consumers. Implementing biometric measures will provide some much-needed confidence that enterprises are taking the issue of security very seriously."

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