

Security at your fingertips

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THE world is about to see a wave of products that will change the way we go about our lives.

Wouldn't it be easier not to have to remember to take your keys when you walk out the front door? With biometrics your finger becomes your key.

Haven't we all, at one time or another, come home loaded with shopping bags and fumbled around trying to get the key into our front door? A biometric lock would make this scenario a thing of the past.

What about lost purses or wallets? The first issue is the credit cards inside. Wouldn't it be better if you could replace your credit card with your fingerprint?

The technology to make all that a reality already exists and is being used today. Your fingerprint is unique to you and cannot be forged, lost or stolen.

Every time you enter the US, customs officers use it as their first line of defence. As well as showing a passport, a visitor must also have their fingerprints scanned to prove they are who they say they are. Already we have the future at our fingertips.

Fingerprints are one of the things unique to all individuals. In the world of technology, the fingerprint is your key, your password, your protector and your identity.

Biometrics, the practice of recognising an individual based on fingerprints or other physical traits, was once dismissed as purely science fiction. Today biometrics is very much a reality and is already being used in day-to-day products.

Fingerprint readers have been incorporated into door locks, laptop computers, USB flash drives and cars. The technology is also being used in areas where security is essential, such as airports, government departments and in the military.

George Doughman, managing director of Covetek Australasia – the local business partner for US companies Aimgene Technology and Bio Enter International – says biometrics has been around for a long time and has finally reached a point where consumers can take advantage of it.

"Over the past four years, it has become quite evident that the market overseas has really embraced this technology as it was released from the military – and the higher level government departments," Doughman says.

He says Covetek's biometric scanners use fifth-generation technology which means it is extremely reliable.

"It has been harnessed by the domestic market because it's practical, achievable and affordable," he says. "The domestic market is suitable for something as simple as putting your finger on a sensor."

Projections by the International Biometrics Group reveal revenue from the biometric market will increase by 31 per cent by 2010 with the fingerprint expected to capture more than 40 per cent over other biometrics devices accessed by voice, retina and face detection.

Biometric sensors read the points of your finger where print ridges come together or end. These tiny points are what gives a person's prints their uniqueness. Biometric sensors differ from optical sensors because they also read the electrical pulses in a body and the live layer of skin beneath the surface rather than just taking a picture of the fingerprint.

And the advantage of using a fingerprint, apart from it being unique, is that it is always with you, unlike a key or password that can be lost, forgotten or forged.

Covetek Australasia has two biometric door locks.

The Fingerprint Deadbolt (\$449) can store up to 99 fingerprints and is powered by four AA batteries. It is self-locking and simple to install.

Apart from the biometric sensor there is also a keypad for added security or emergency entry.

The Bio Door Lock (\$799) can store up to 1000 fingerprints and is suited to a corporate or commercial environment or domestic customers who want a handle included on the lock. It has a power back-up facility and an optional feature which allows the owner to log the times when the door is opened and closed.

Bio Recognition Systems have also released a fingerprint lock. BioLock+ (\$995) stores up to 100 fingerprints and features network connectivity to remotely access and control the device.

Doughman has set up displays for Covetek's new fingerprint locks at Bunnings stores across the country and has seen steady initial sales and hundreds of inquiries. "People who are developing a new home or renovating are looking at these home idea centres to see what's available," he says.

"They see this device as being really convenient. You don't have to worry about changing locks or being locked out."

Doughman says Covetek will make little money on the fingerprint locks because he wants to establish the relatively new technology and cultivate it in Australia. Identical models offered by Covetek are being sold in the US for twice the price.

"That strategy works but most people will realise new technology comes at a premium," he says.

"People still ask me why they should spend so much money on a lock. How many times have you been locked out of your home and how much did it cost you for a locksmith to get you back in? If you stop and think about practicality and real convenience – you can shut your door and walk out."

Doughman says his US counterparts are in the process of fitting out the entire Hilton hotel chain with fingerprint door locks. "Biometric is now being used by tuckshops in US schools with parents designating what their children are allowed to buy," he says. "A kid will go and put his finger on the counter and then they get a report on what he (or she) is allowed to have."

Other uses include: in Korea, fingerprint sensors are used in retailing to connect customers to their accounts; the sensors have taken over from passwords in the IT world;

USB flash memory drives and external hard drives, including models from Covetek and SanDisk, are now available with built-in biometrics sensors and;

Audi's luxury A8 motor vehicle uses a biometric sensor to distinguish between various drivers of the car and then adjusts the seat, climate and entertainment settings in the cockpit.



SECURE ... *clockwise from top left*, a Covetek BFS-310 Fingerprint deadbolt door lock from Bunnings; Covetek's BioFlash 2.0 is a data encryption-decryption system that stores up to five fingerprints to safeguard a flash drive's contents; Sandisk Cruzer Profile has a built-in fingerprint reader memory stick; a customer uses the fingerprint verification sensor on an ATM.

- **Sticking it to movie print-busters**
- **THERE are plenty of myths when it comes to fingerprint scanning and those myths have gained strength by the way they have been portrayed in popular culture.**
- **One of the most popular misconceptions is that it is possible to capture a person's fingerprints with adhesive tape and then use the "taken" print to fool a sensor lock or decryption system.**
- **Filmmakers and writers have taken plenty of creative licence to move stories on but, in the real world, sticky-taped fingerprints will not work.**
- **Biometrics not only requires the right fingerprints, but also a pulse and the body's electrical current to verify it. Which leads us to another myth.**
- **I had imagined – no doubt along with many other film buffs – that biometric systems could be skirted by chopping off a victim's finger.**
- **Wrong again. A severed finger would have no pulse and no blood flow beneath the surface of the skin, which is essential for the biometric system to operate.**
- **Not only would the severed finger be as useful on the sensor as a piece of wood, it would also land you in jail with nothing but a bloodied digit to show for it.**