Using biometrics to avoid credit fraud

Kasey Panetta, Associate Editor

Credit fraud is a growing problem, and new technology isn't making it any better. With the advent of electronic wallets and fewer cash transactions, maintaining privacy and verifying identity are becoming an increasingly alarming issue.

The problem is in order for our current system to be secure, the cashier needs to verify things that they have no way of really knowing. For a credit card, they can check that there is a signature on the card and check it against your signature on the kiosk, but they're not CSI experts, so any discrepancy must be incredibly obvious.

As it stands, there are two options. Some credit cards require photos of the card owner to be visible and verifiable. This would be great if ALL credit cards required a photo but otherwise isn't really a deterrent. Alternatively, cashiers could ask for identification to verify against the original.

In reality, because more and more businesses are moving to systems where the cashier doesn't handle the card at all, it's difficult to check any of these things without making a concerted effort. Frankly, there is little incentive for checking.

The solution, [1] it seems, is in the signature.

Researchers at the Fraunhofer Institute for Computer Graphics Research [2] have created a system that creates a unique signature for each person using biometric identifiers called "signature dynamics" which include pressure, any hesitations while writing particular letters, and the angle of the pen. This information will be stored on a chip in the credit card, which will verify each signature at the till against the records. No match? No money. It seems like there would also be a way to implement this with anyone using electronic wallets.

These security devices pop up a lot, but this seems like a somewhat legitimate attempt to solve a very real problem. The only concern is how much variation the verification system allows. Plus, the resistive touchscreens often present at tills

have a nasty habit of wearing out after a while and requiring *a lot* of pressure to sign. Clearly there are some kinks, but it’s definitely a step in the right direction.

Source URL (retrieved on *04/27/2015 - 3:30am*):
http://www.ecnmag.com/blogs/2013/03/using-biometrics-avoid-credit-fraud

Links:
[1] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&ved=0CDsQFjAB&url=http%3A%2F%2Fwww.psfk.com%2F2013%2F03%2Fbiometric-credit-card.html&ei=0hlCUfSZMebxygGCuoHIAg&usg=AFQjCNGIwc8XPKw_n5gzVWD_t8d_qozU6w&sig2=2cbFdwMVN6fzD8jTX6i92w&bvm=bv.43287494,d.aWc
[2] http://www.igd.fraunhofer.de/en/Presse/Presseinformationen/CeBIT-2013-biometric-signature-pays