

Using Biometric E-Signatures to Eliminate Fraud

The Genius of the Handwritten Signature is its Simplicity.

Losses from fraudulent use of stolen cards are skyrocketing, with nearly \$3 billion projected by 2010. It's not surprising then, that the majority of card issuers, 64%, use "payer authentication services" to reduce fraud. (Gartner Group, via American Banker). But is it working? ID's and passwords alone don't seem to be enough to maintain security measures. The Federal Trade Commission states that "the main motive for identity theft behind credit card fraud is to obtain/take over the account". It is prudent therefore to put in place more secure identity verification measures.

There Is A Solution

One such solution gaining momentum is our biometric electronic signature capture. This is a software solution that eliminates fraud and protects the identity of the signatory easily and without any disruption to normal workflow. CSC's Biometric E-Signature is a natural fit in point-of-purchase applications because a card user must sign his/her name anyway. It is also the most familiar and least intrusive of other biometric identifiers (finger scanning, facial recognition, hand geometry, retinal scans). Because of this natural fit, many credit card issuers have begun the process of migrating to this type of signature capture technology to eliminate fraud.

The genius of using the handwritten signature is its simplicity. People sign their names everyday as part of their daily routine. There is an expectation every time one signs that it will be used as a means of identification. Using biometrics technology also satisfies legal and regulatory requirements, making true security a reality.

How CSC's Biometric E-Signature Work

Customers sign for transactions on a signature capture pad, just as they do now. Only behind the scenes, the biometric signature data is being transmitted real-time to a verification server operating parallel to the host. The server compares the

Net Credit/Debit Card Fraud in US after Gross Charge-Offs (\$millions)

Year	All Cards	Bank Cards
2000	1,088.10	743.09
2001	1,221.87	843.15
2002	1,357.92	944.57
2003	1,499.23	1,049.54
2005	1,817.68	1,294.09
2010	2,877.21	2,127.87

Source: The Nilson Report

current signature dynamics with earlier recorded versions belonging to the cardholder. Transactions are accepted/rejected within seconds¹.

Handwritten samples are captured on a signature pad and stored when the card is first used in the system. All subsequent transactions are then compared to the stored samples using a sophisticated method of analyzing the signature dynamics, rather than just looking at a signature image. These dynamics or biometric points include timing elements such as speed and acceleration, sequential stroke patterns and off-tablet motion. Once captured, the signature cannot be copied or altered. The data is encrypted and stored as part of the record, and then both signature and encrypted data are bound to the single transaction. If the transaction or data is tampered with, the electronic signature is invalidated, making it very difficult to fool the system with simple forgery.

E-SIGNATURE ADVANTAGES

- Widely accepted - people sign their names every day
- Certain transactions require signatures rather than fingerprints or retinal scans
- Easy to implement - non-invasive and doesn't disrupt the normal workflow
- Signature verification in seconds

The Impact of Fraud on ROI

Rising trends in identity theft behind credit card fraud and the resulting impact on ROI is leading businesses to embrace emerging biometrics to fight back. Clearly, the benefits of implementing a solution like Biometric E-Signatures today will have far greater impact on the bottom lines of tomorrow. For more information on CSC's data and document management solutions, visit us on line at www.csc-groupinfo.com.

Estimated Costs of Not Using Anti-Fraud Software (\$billions)

Year	Investment	No Investment
2002	\$12.0	\$14.0
2003	\$20.0	\$22.0
2004	\$35.0	\$39.0
2005	\$38.0	\$60.0

Source: Meridian Research

¹ Analysis at a major financial institution in the UK resulted in 95% system reliability rate, zero false rejection rates, and zero false acceptance rates.

The CSC Group
Improving Your Information Assets.

Fighting Identity Theft Beyond Credit Cards

Use biometric electronic signatures to control access to secure buildings and information. Use to automate ID cards, badges and check-in. Use anywhere enhanced security and control is needed over facilities, documents or other information.