

Case Study

Location

San Francisco, CA

Needs

Validate customer identity for credit card transactions with a fingerprint to reduce merchants credit card fraud.

Application

Consumer Point-of-Sale

DigitalPersona™ Product

- U.are.U® Fingerprint Sensor

Customer Overview

Pay By Touch is a premier provider of next generation payment services to the retail, travel and entertainment, and healthcare industries, using biometric authentication to make payment transactions more secure and convenient.

Pay By Touch provides an independent authentication service which supplements a merchant's existing payment processing infrastructure. Using a consumer's unique biometric "signature", namely his fingerprint, Pay By Touch can authenticate both the identity of the consumers as well as the validity of the payment method.



Pay By Touch™

Security Challenge

Merchants and consumers are beset with many difficulties and inconveniences as the use of credit and debit cards continue to rise in popularity. Merchants are not only faced with growing credit and debit card fees and an inability to influence consumer payment preferences, but also with growing credit card fraud equaling \$1.8 billion in annual merchant chargebacks. Check fraud is also a significant concern; with over 730 million so-called "non-sufficient funds" checks valued at over \$10 billion written to merchants and retailers annually.

These costs often translate to 5-12% in lost revenues for the merchant and 2-5% higher prices for the consumer. In addition, consumers must often cope with stolen credit cards, or worse, stolen identities. To make matters even more challenging, merchants face customers expectations of lower prices, faster checkout, and flawless service which result in further pressure on profit margins, higher turnover rate and larger and quicker competitors threatening market share every day.

DigitalPersona Fingerprint Sensor in Pay by Touch Solution

Convinced that a fingerprint system was the most convenient and secure way to authenticate customers, Pay By Touch looked for a supplier. Most of Pay By Touch's service operates out of sight of the consumer and merchant at the Pay By Touch Operation Center. This is where a quick and accurate match of a buyer's fingerprint with the one stored in the Pay By Touch database is conducted. However, the one critical and highly visible component that serves as Pay By Touch's sole visible component is the DigitalPersona fingerprint sensor.

When evaluating fingerprint sensors, Pay By Touch required the following criteria to be met:

- Ability to obtain consistent images from a wide variety of finger sizes and types from very dry to very sweaty.
- Ability to withstand high-frequency commercial use in retail and other consumer point-of-sale situations.
- Produce zero false acceptance rates and low false rejection rates.

Pay By Touch conducted an exhaustive comparison of sensors representing a diverse array of technologies including silicon-based RF, capacitance-based silicon chip, and other optical sensors. They concluded that DigitalPersona's fingerprint sensor performed most consistently and accurately under a wide variety of operating conditions. Additionally, DigitalPersona's sensor best withstood Pay By Touch's rigorous repeat-use test that simulates commercial consumer use in an accelerated time frame. Such tests gave Pay By Touch the confidence to offer the DigitalPersona sensor to their customers as an integral part of the Pay By Touch Solution.

Benefits

- **Quick ROI:** Pay By Touch produces cost savings by reducing overall transaction costs and generating higher sales through increased customer throughput.
- **Customer Retention:** Pay By Touch empowers merchants to strengthen customer loyalty programs and significantly improve customer service via quicker checkout times.

(see reverse side for the results)



The Results

Pay By Touch's service provides important benefits to merchants by virtually eliminating fraud, improving customer loyalty and service, and reducing overall payment processing costs.

Pay By Touch also provides important benefits to consumers who no longer have to worry about carrying cash or specific credit and loyalty cards. Once registered with the service, users can pay quickly and efficiently with their finger at any Pay By Touch enabled merchant and be certain that they are receiving credit in the merchant's loyalty program. Customers using the Pay By Touch service enjoy better identity protection and a more convenient checkout experience.

For example, Associated Grocers is a retailer-owned cooperative that provides food, general merchandise, and retail services to approximately 400 independent grocers throughout Washington, Oregon, Alaska, Hawaii, Guam and the Pacific Rim. Thriftway, a 23-store chain in the Associated Grocers cooperative, has been offering Pay By Touch's service in their West Seattle store since May 2002.

Paul Kapioski, president and owner of the West Seattle Thriftway chain, claims the new system is expected to speed up checkout lines and save the company money spent on credit card fees. Kapioski indicates that each credit card swipe costs the store about \$1.10 and that 70 percent of his customers use plastic cards to pay for their groceries. Within weeks of deployment, 35% of Thriftway's regular customers had registered with the Pay By Touch service, and of those registered, 65% had switched from higher cost credit cards to lower cost debit cards, significantly lowering Thriftway's overall transactions costs.

"It's really about customer convenience and security," says Kapioski. "For one, you won't have to dig your credit cards out of your purse or wallet, and you're assured that no one else is using your cards in our store." He adds that, "... deployment was relatively simple because existing point-of-sale equipment didn't have to be replaced."

DigitalPersona's fingerprint sensor once attached to a credit-card machine at a checkout counter captures customers' fingerprints and sends encrypted data to the Pay By Touch data center. That fingerprint is then matched against the one registered at enrollment. After authentication, the transaction is routed through conventional financial networks like any other credit card or debit card transaction.

Mr. Kapioski adds that although fraud was not a major problem for the West Seattle Thriftway, he hoped that the system would cut down on the store's credit card transaction fees. All retailers suffer from the higher transaction fees that issuers charge to cover losses from credit card fraud nationwide, he said. "We want to go back and say that we shouldn't be charged the same fee," Mr. Kapioski said, "because this is a more secure system."

