

Biometric PalmSecureID to Combat ATM Fraud

The application of biometric solutions in ATMs and electronic point-of-sale solutions provide a high- security environment. By using a smartcard, on which the client's unique palm vein pattern is stored, the client can authorize themselves simply by scanning their palm vein pattern to let the ATM compare it with palm vein pattern stored on the smartcard or alternatively stored in a secure centralized database server. Properly implemented, the system completely solves the problem of bank card theft and forgery. With PalmSecureID your ATM systems will always be safe. ATM skimming and card fraud is a huge problem around the world, generating significant additional costs for banks and their insurance companies. Combining credit and debit card pin numbers with the security of a biometric feature can drastically reduce these costs.

PalmSecure is a traceless biometric sensor technology. Instead of relying on images of attributes such as fingerprints, iris scans and facial recognition, it uses the palm-vein pattern hidden within the body. This natural protection provides higher security against fraud - it is an important privacy feature for many institutions worldwide.

Fujitsu's PalmSecure™ is the world's most advanced biometric authentication system



The detailed biometric information in palm-vein patterns delivers high levels of operational accuracy. The number of false positives is one of the best compared with other biometric technologies. PalmSecureID goes well beyond fingerprints or finger vein technology and is less costly and as accurate as Iris Scanning- regarded by security experts as the most secure biometric technology. According to security experts, fingerprints can easily be lifted and replicated. False Acceptance and False Rejection rates are also much higher with finger prints. Dirt on fingers, cuts, scars and wrinkled fingers from time in water are all factors which render fingerprint scanning unreliable. Finger Vein Scanning requires datapoints on fingerprints are more difficult to obtain from people of Asian descent because of less-defined ridges in Asian hands, especially women. Additionally, between 2 percent and 5 percent of the general population has some physical limitation that hinders fingerprint imaging. Doctors who wash their hands frequently; hair dressers who work with chemicals; and others who work in trades that require frequent hand-washing can have fingerprint erosion, Wilson says.

Fingertips also become dirty, oily or cut, and dirt and oil tend to obscure finger images. Fingerprints can be lifted and copied, and industry concerns about the ability to read prints from a dead, severed hand still plague the technology.

And finally, beyond the technical and scientific efficacy shortcomings of fingerprints and finger vein templates, headlines often report on U.S. and U.K. consumers associating fingerprints with government control, and they want no part of it, whereas PalmSecure has proven customer acceptance.

With the continued efforts to combat fraud, PalmSecureID can be utilized in a variety of settings to address identity validation and secure access.

For Banks, Credit Unions and their customers, the traditional banking ID card or "Smartcard" and PIN# has been a mainstay for identifying customers and enabling their account access for financial transactions. This method has been proven rife with issues, including "ATM Skimming" with covert devices inserted into the card read slot that captures card data and PIN's, and invisible pinhole cameras and "shoulder surfing" to steal PIN numbers. Skimmers can also be handheld devices that a dishonest merchant can keep in his pocket. While charging your card while you're out at dinner, for example, a scammer can run your card through a skimmer as well. According to industry numbers from Javelin Strategy & Research, one tenth of fraud cases in 2009 involved unauthorized ATM withdrawals.

PalmSecureID addresses these shortcomings by linking a person's ID to their unique Palm Vein Template, which is obtained during a few seconds initial enrollment process. There are three ways to manage biometric encrypted user templates: banks can store them centrally in a secure database; they can store them inside individual credit and debit cards via an onboard chip; or they can store them together with a matching algorithm on debit and credit card chips. At present, the database method is not accepted in many countries due to privacy issues. The second method allows banks to authenticate against actual debit and credit cards in many cases, which requires between 1KB and 2KB of space on a card's chip. However, matching is still done inside the ATM itself.

It is likely that most banks will prefer the third method, as once the template is stored inside the debit and credit card chip, matching can also be done within. However, this method requires 10KB to 12KB of space on the card's chip, which means that new cards would need to be issued in many cases.

While PalmSecure is typically used to eliminate PIN numbers, PalmSecureID can also be used to implement triple-factor security, because it uses a PIN (something you know), a smart card (a physical token; something you have) and a biometric (something you are) are at the same time



The vein pattern in your palm is totally unique to you.
No one else in the world can match it.





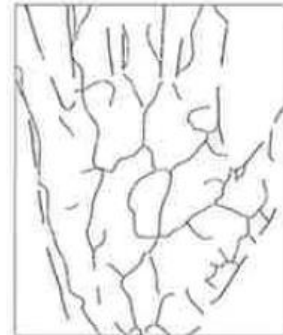
PALMSECURE ID is FSN's industry-leading hardware and software integration based on Fujitsu's unique Palm Vein Scanning technology. Like Finger Prints and Iris eye patterns, each vein pattern in the palm of the hand is unique to each individual including those born as twins. It is hygienic, more accurate and less invasive than fingerprinting and iris scanning with authentication response speeds less than 2 seconds. This offers a highly reliable, contactless, biometric authentication solution that is non-intrusive and easy to use in a small cube-sensor form factor which is normally encapsulated with hand guide and LED verification of a positive palm read and match. PalmSecure™ technology has been deployed worldwide in a wide range of vertical markets, including security, financial/banking, healthcare, commercial enterprises and educational facilities. Additional applications include physical access control, logical access control, retail POS systems, ATMs, kiosks, visitor ID management and other industry-specific biometric applications.



Hold palm over scanner



Scanner reads vein pattern



Your identity is verified



SAFE - LOW COST - ACCURATE - SECURE - ENCRYPTED



- Secure and verified Employee and Visitor ID
- Fast, Hygienic and Non-Intrusive
- User Acceptance
- Point Of Sale applications in Retail
- Time and attendance for training certification
- Eliminate “Buddy Punching”
- Eliminate identical name problem
- Bus Transport for pick and delivery
- Fire drills
- Mustering off site for emergencies

This one of a kind biometric signature is captured by taking a scan of an employee’s or frequent visitor palm which only takes a few seconds. During the scan an invisible infrared light is directed on the patient’s palm. This light is very similar to the light used in a TV remote control.

Each Scanner is connected via USB cable to a local network-connected Desktop PC, Laptop or Tablet(utilizes the driver to access the stored palm templates for authentication) . The Tablet PC could be wall-mounted beside the scanner and be used to also provide other functions such as:

- Larger screen sign to provide visual guidance instructions such as....A WELCOME MESSAGE and Work Safety Reminder
- Todays specials at the Cafeteria
- Pin # directions for two factor authorization for secure access or door unlock.

- Enroll once and done
- Prevent errors & omissions
- Speed processing at all points of use
- Increase traffic flow in the morning
- Reliable & easy to use
- Reporting & Trend analysis for management
- **Paperless & a part of your GREEN program**

Real-time. Real value:

- ✓ Save time
- ✓ Save money
- ✓ Absence management
- ✓ Eliminate manual record keeping

Hand guides: Several versions are available and are integrated with the Palmsecure scanners. They can be desk or wall-mounted with a 45° bracket. The Initial Enrollment Stations would be network connected and powered to PC’s or Laptops via USB cable(included) located at an administrative location.

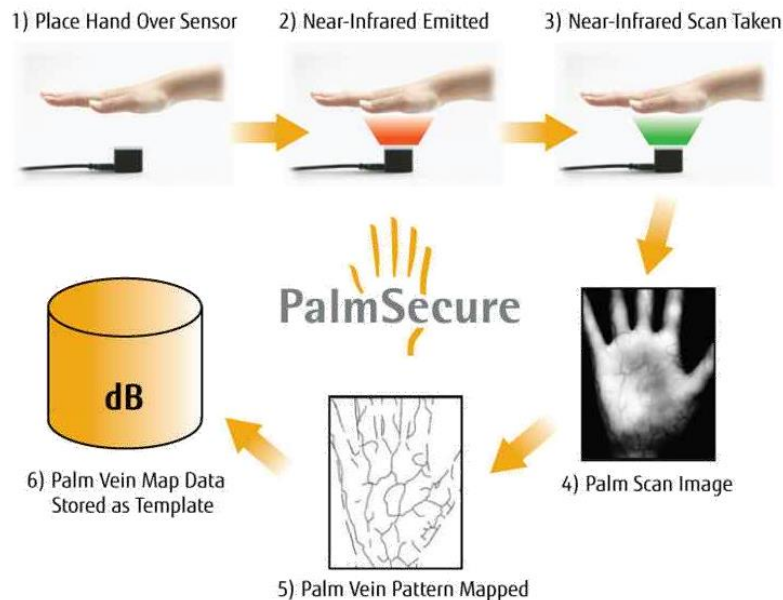
Optional Considerations include a separate scanner for the left hand which some military and correctional institutions use to indicate an emergency or if a person has an arm in a sling as a result of a broken wrist, arm or shoulder.

Technology Validation: Approximately 11 million people use PalmSecure every day. Six million use it at ATMs to withdraw money, while four million use it to identify themselves in the medical healthcare sector.

- ❖ Over 190 Hospitals in the US are now using the PalmSecureID technology for patient registration.
- ❖ Automated Factory time and attendance
- ❖ Over 50 USA School Districts are now using PalmSecure for lunch lines.
- ❖ Financial institutions in both Japan(92% of all ATM's) and Brazil(Bradesco, 30,000 ATM's) are now using PalmSecureID for ATM authorizations. These and similar products are in use by the US Navy; US Army; the State Of Pennsylvania and private sector clients. After researching various biometric technologies, Bradesco chose PalmSecure for its outstanding features, such as high levels of verification accuracy and being non-invasive and hygienic making it easier to be accepted by customers of the bank.



PalmSecure Workflow



Interested in a detailed proposal?.....

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