

Hassle-free banking
in the **DIGITAL AGE** through
NEXT-GEN
Technologies

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Experience smooth transactions with the new generation of banking and payments using facial recognition. Financial fraud is a critical problem for banks and online payments, and the current security systems are vulnerable to theft and loss. By using the face recognition tool for user authentication in ATMs and online payments, banks are ensuring that only the recognised and authenticated users can use the bank card.

Why Facial Recognition is fast becoming a preferred mode of Biometric Identification

The human face is the most prominent way through which we can comprehend someone's identity. Being able to detect individual faces or read someone's emotional reaction is often crucial for a business operation. Recognition must be quick and accurate, regardless of whether it is to prevent unauthorized users from entering a restricted area or to determine customer feelings about the services.

Innovative banks and financial institutions are now using face recognition as an integral part of their payments and transactions to ensure security, speed and fantastic customer experience. Accurate and rapid user identification is gaining momentum within the finance sector. Modern ATMs represent a critically important channel of interaction with customers, which produces extensive self-service opportunities and reduces their dependence on banks. In many situations, facial recognition has significant advantages over other biometric solutions.

Face Recognition Use Cases for Banking and Payments

Customer as VIP

All customers who go to their respective banks are given a customer management ID card, and it must be presented whenever they visit the bank. However, this card has a few disadvantages:

- Customers forget or lose their cards
- Card magnetic fields are easy to malfunction

Face recognition does not require an ID card. Customers and attendants are recorded within the system through their faces.

ATM and Self-Service Kiosks

By using face recognition as a tool for authenticating users in ATMs, banks are assuring them that only they will be able to use the bank card. Some of the benefits include:

- Avoids fraud through identity theft and card cloning
- User-friendly (non-intrusive) authentication and banking transaction authorisations
- Alarm on forceful entry or customer threat

Online Banking

Online banking is currently exposed to direct attack from hackers. With FacelT Facial Recognition System, only authorised users will be able to access their bank account through the web service of the bank. The user has to come in front of the webcam, and the system will verify the identity, granting them secure access to be there.

Mobile Banking

- Secure Access from any mobile device carrying a camera
- The client can make secure banking transactions anywhere, anytime
- Secure API and encrypted data for linking with existing banking applications

Contact less Banking Staff login through Face Recognition

- Employees at the bank have to login into the application to access their computers at work. The system identifies the person in front of the webcam and decides whether the person can access the PC or not
- Secure access to the bank's vault room after face recognition, which secures the entrances & sends an alarm if there is an attempt to enter, or if there is an employee who must not be there

Aged Customer Recognition and Special Treatment

- There are times when some elderly customers are unable to sign in or use all the features of online banking and are often assisted by an attendant. For these customers, face recognition is a must. The authentication becomes as easy as just looking at the camera.

Hitachi's FaceIT Facial Recognition Platform for Banking

Automated Teller Machines (ATMs) are soon to be replaced with new multi-function biometric face recognition enabled machines, which will improve the overall security. These machines will enhance the customer experience, usability, and convenience of transactions at ATMs. Hitachi's FaceIT Facial Recognition and Customer Authentication platform can be integrated into the bank's self-service kiosks, providing a smooth biometric check-in for customers and the banking staff.

The FaceIT Facial Recognition application needs to know how you look. You introduce yourself to FaceIT by using the software to take a few pictures of your face (called biometric enrollment). This is as easy as taking a few selfies.

After enrollment, FaceIT is ready to recognise you (Verification). To see if FaceIT identifies you, simply press 'Verify' and take a selfie, just like enrollment. The patented Fake Defender prevents hackers pretending to be you - this is a significant advantage over other face recognition software that can easily be faked with a photo. Optional challenge-response to protect against video attacks can also be enabled in your FaceIT account.

Features like face recognition and One-Time Password (OTP) are used for the enhancement of security of accounts and privacy of users. Face recognition technology helps the machine to identify each user uniquely, thus making your face an essential element. This eliminates the chances of fraud due to theft and duplication of the ATM cards.

- Auto-corrects for pose, and optimises images with a low-light environment.
- No need to re-capture the image each additional time the face shows up.
- Algorithmically learns about a user's face and adapts to the unique features and expressions.



Strong Multi-Factor Authentication, as easy as taking a Selfie. Auto Shutter to take picture as soon as the customer's face comes in front.



Periocular eye recognition for partially visible faces.



Liveness Detection Engine prevents Photo and Video attacks. Human presence ensured by analysing movements and environment.



Picture Visibility Enhancement from various angles for face recognition

Taking Care of Security and Speed Concerns

Sharing personally identifiable information with a third party

Tokenisation and encryption used in our algorithms ensure that we only store a mathematical representation of the user's unique features, which cannot be exported, re-engineered or reverse-engineered to its original format. This enables high levels of privacy protection through full anonymity. When carrying out our services, we keep the biometric data anonymous, with no personal identification information stored.

Using the On-Premise / Cloud Infrastructure

Hitachi's FaceIT is built and hosted on Amazon Web Services (AWS), and undergoes regular SOC audits. With SSL Encryption, our endpoint ensures that all data passed between the web server and browsers remain private and integral.

Processing Large Volumes of Images or Videos

We can process a million images each month, and experience no crashes due to traffic volume. At times, we process tens of thousands of images per hour with no disruption to service. Get the peace of mind with SLAs, 24/7 technical support, dedicated integration services, with our strategic offices covering critical time zones/geographies.

Anti-Spoofing and Liveness Detection Engines

FaceIT Anti-Spoofing and Liveness Detection Engines are powerful security mechanisms that prevent any data from being compromised. Our AI algorithms and security architecture considers not only the system's anonymous data handling and the cloud's security requirements but also ensures safety against attacks.

Summary of Benefits for Healthcare

Facial Biometric Customer Identification Systems are increasingly being adopted by banks, given the obvious benefits. As more banking systems seek to cut administrative costs to cope up with the evolving demographic changes, many more banks will likely turn to solutions like these. This will allow them to enjoy the following benefits:

- Ability to discriminate among millions of people
- Does not require customers to remember several surrogate identifiers
- Safeguards against intentional misidentification
- It cannot be customized or impersonated, and will remain with the customer for years

Facial recognition is widely preferred over other biometric technologies – Voice Recognition, Iris Recognition, and Fingerprint Scanning – due to its non-contact process and easy deployment.

Find faces

Identify, recognize or verify people

Analyze faces


Identify facial features and demographics


Understand faces


Identify how people feel and behave.


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