

# SECTOR REPORT 2: BANKING TECHNOLOGY



Banks explore the potential of blockchain

## The 5 tech trends that are transforming Asian banking

See which handful of technologies are powering the latest wave of innovative banking products and service enhancements in Asia.

Asian banks seem to be caught in a digital bind these days: They need to keep up with the techy Joneses — from tightening their cyber security to automating their old systems — whilst steering clear of hyped trends that will end up being trashed the following year. Banks must choose to invest in technological trends that are not only game-changers, but will also remain relevant long enough to provide a substantial return on investment. In 2017, these five technologies made it to the list of banking must-haves to boost performance and client experience: Soft tokens, biometrics, blockchain, chatbots, and contactless payments.

### 1. Soft tokens

In the face of rising cyber attacks against banks in Asia, cyber security has become of paramount importance. Banks are enhancing

**Voice and facial recognition is increasingly becoming part of a bank's line of defense against customer data thieves.**



the protection of their systems and customers through soft tokens. Unlike a hard token, which needs to be physically carried around by the client for them to receive their one-time authentication password, a soft token is linked to a client's device. "Many of our corporate customers are already using this," says **Nimish Panchmatia**, managing director and head of technology & operations, Hong Kong & Mainland China at DBS Bank (Hong Kong).

In 2015, UOB also used tokenised security — one of the other emerging technology trends in banking — to launch mobile contactless payments in Singapore, the first country in Asia Pacific to receive such a service. Tokenisation works by encrypting a customer's card payment data on the mobile device, says **Aaron Chiew**, executive director, retail digital bank, mobile and digital at UOB, which enables higher protection for

sensitive card information. OCBC NISP, for its part, is developing soft token technology for mobile banking. **Andreas Kurniawan**, division head, retail business development at OCBC NISP, says the bank is leveraging on this digital innovation to enhance both security and customer experience.

### 2. Biometrics

Also in cybers ecurity, Panchmatia reveals that another exciting technology making waves is biometrics. In particular, voice and facial recognition is increasingly becoming part of a bank's line of defense against customer data thieves. Biometrics is also an appealing service to individuals that find it hard to remember alphanumerical passwords.

"Digital know your customer (KYC) is the future, particularly as biometric technologies mature and become more mainstream," says Panchmatia. "With the use of multiple biometrics, such as fingerprint and voice or voice and face authentication, that link with the government ID database and enhance the customer experience, security, as well as efficiency and cost — it is difficult to see any significant cons."

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Contactless payments are also gaining traction

DBS clients in India are beginning to experience the power of biometrics firsthand. The bank has begun offering the service across the country and it is linked to Aadhaar, an Indian government initiative on biometric identification cards. OCBC NISP is similarly developing face recognition for its mobile banking business to reduce the complexity of remembering security passwords whilst bolstering customer security.

**Stella Lim**, head of corporate sales, Asia Pacific at SWIFT, reckons cyber security technology is becoming vital to banking operations due to the growth threat of attacks. Banks are also starting to band together to create solutions to a “pressing” threat that, if taken on alone, they may not be able to solve.

“Recent instances of payment fraud in our customers’ local environments demonstrate the necessity for industry-wide collaboration to fight against these threats,” says Lim. To this end, SWIFT launched the Customer Security Programme, which aims to improve information sharing amongst member banks, nurture best practices for fraud protection, and enhance industry support for partners in the banking ecosystem.

### 3. Blockchain

As banks pursue deeper relationships with their customers, they also want to collect more information and insights that will guide which products banks recommend, how to improve their service, and check whether a customer poses a security risk. This is where digital KYC comes in, and the emerging technology of blockchain promises to make client data collection and processing more

efficient than ever.

“KYC is a foundation of every customer relationship, even if the same profile checks and due diligence have been done by other banks, dozens of times before. Digital KYC is looking at ways to overcome this repetition using the secure, transparent capabilities of blockchain technology,” says **Di Challenger**, general manager, global transactional solutions and client experience at Westpac. “The premise here is to do KYC once and centralise the process as an industry utility.”

But Challenger warns that despite blockchain technology’s promising potential, there are still a few issues surrounding its use that must be resolved in the coming years. For example, the legal structures needed to centralise KYC using blockchain raise a lot of questions.

“Who is liable if the KYC is incorrect? Is it the custodian of funds, or the bank that originally did the KYC? If this is not clear and consistent across the jurisdictions the bank operates in, it will result in an unacceptable level of risk and is unlikely to replace today’s repetitive but well-defined processes,” says Challenger.

### 4. Chatbots

Automation has swept through the banking industry in recent years, convincing firms to embrace digitalisation and reap the efficiency gains it brings. A bold step in this direction is the use of banking chatbots, which leverages on artificial intelligence (AI) in the hopes of automating responses to client queries online.

“The presence of chatbots would be able to ease banking customers

in solving common and simple questions through online chat, whilst branch customer service as well as call centre departments can further focus towards answering more complex questions,” says Kurniawan.

DBS’ Panchmatia adds that many organisations are trying out different variations of chatbots, such as customer service bots and robo advisors. DBS has launched a live chatbot in India as part of its digibank offering, as well as one in Singapore for its POSB franchise, whilst a pilot programme in Hong Kong uses Cantonese on Facebook messenger rather than a standalone app.

CIMB has also joined the chatbot bandwagon with the launch of CIMB EVA, a chatbot application that allows customers to view their current and savings account balances, pay bills, and reload their prepaid phones. The chatbot also comes with a messenger chat feature that provides alerts on account activities, as well as the latest offers from CIMB. **Vijay Manoharan**, senior managing director & regional head, digital banking & decision management at CIMB, reckons chatbots represent just a fraction of the exciting applications that AI can unlock in the banking world. “We expect innovations in AI and cognitive computing to mature as a platform to make, for example, sophisticated financial advisory accessible to all.”

### 5. Contactless payments

Finally, contactless payments are forging ahead in Asia due to the rise in mobile phone usage. UOB has been pushing for mobile contactless transactions using credit cards, and it has also launched the first Near Field Communication-enabled contactless automated teller machines in Singapore where customers can withdraw cash with a tap of their smartphones.

“Today, the mobile phone has become an indispensable lifestyle device. Many of us would notice immediately if we left our homes without our phones. As such, one of UOB’s key areas of focus has been how we can harness contactless technologies so that our customers can bank and pay on their phones,” says Chiew.



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