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ENABLING E-COMMERCE: BALANCING RELIABLE SECURITY WITH CUSTOMER CONVENIENCE FOR 3-D SECURE



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HOW EMIRATES NBD HAS LEVERAGED TRANSPARENT AUTHENTICATION TO SUPPORT THE INCREASE IN USE OF CARDS FOR E-COMMERCE TRANSACTIONS IN THE UAE

The e-commerce market in the United Arab Emirates (UAE) is booming. Market research specialist Frost & Sullivan has estimated that by 2018 e-commerce will be worth \$10 billion, making it “UAE’s fastest growing business”.

This is a relatively recent development: the UAE has one of the highest numbers of shops per capita in the world, and its consumers have been slower to move to online purchasing than those in other countries. Frost & Sullivan attributes the current boom to several factors, including increased connectivity, a proliferation of connected devices and services and the Government’s initiatives to encourage a digital lifestyle.

In parallel to these factors, Emirates NBD, a major bank in the Middle East region, has made an important contribution to the development of e-commerce in the UAE. This was accomplished through its multi-year strategy to make it easier for consumers to pay online using credit and debit cards while also aggressively fighting online fraud. The bank has achieved this goal by implementing an innovative fraud risk evaluation solution that uses predictive models to accurately discern between legitimate and fraudulent transactions in real time, in partnership with CA Technologies via leading Middle East and African provider of innovative payments solutions Network International.

Originally designed to ensure the highest levels of security while streamlining the customer experience, the infrastructure that Emirates NBD has put in place has since been modified, evolved and improved over the years. The solution enables the bank to achieve the best of both worlds - protecting transactions without unnecessarily challenging the customer for every transaction, which would result in broken transaction flows on every occasion.

Emirates NBD was quickly able to improve the proportion of successfully authenticated transactions to 97% by implementing CA Payment Security Suite, made possible via its relationship with Network International.

The bank successfully reduced the friction associated with forcing cardholders through static password requests for every online transaction, which leads to cardholders completing more purchases with a streamlined experience.

The payment security platform from CA Technologies, that Emirates NBD subscribes to through partner Network International, also positions the bank strongly to continue to take a leading role in e-commerce enablement in the UAE going forward. This will require accommodating the shift in the e-commerce landscape towards mobile and in-app, by exploiting innovations such as tokenisation and biometrics, while keeping on top of security threats as they emerge.

THE BACKGROUND: THE STATE OF PLAY IN 2010

When Emirates NBD embarked upon its strategy to grow card usage for e-commerce transactions in 2010, the market was at a very early stage of development. Looking back, Deepak Chandran, Senior Vice President- Head of Cards and Kavitha Kishore, Vice President – Bank Cards, Cards Portfolio & Loyalty at Emirates NBD, recall that there was plenty of discussion about the potential role of card payments in supporting e-commerce, but that nonetheless most banks had blocked their cards for online use. Their concern was, of course, security – a worry not only for banks, but for merchants and consumers as well.

Emirates NBD decided to test the waters by allowing its cards to be used for e-commerce transactions, while tightening its fraud controls. The Cards team wanted to determine the trade-off between increased business and increased fraud. Even as most other banks were hesitant to allow credit cards to be used online, Emirates NBD made a bold decision in taking the lead to open up e-commerce transactions on both credit and debit cards.

At the outset, the Cards team determined that education was needed to help consumers understand that, even in the event of misuse of their cards, they would be protected by their bank. At that time, not all consumers were aware of – or completely sure that – the liability would lie with the bank if there was no negligence on the part of the cardholder. Another challenge the bank faced was that in the local market, it still wasn't possible to pay many bills online, for example utility bills. The whole market, from both an issuing and an acquiring perspective, was rather under-developed.

With its entry into the market to enable e-commerce payments using its cards, Emirates NBD, working with Network International and CA, has played a key role in unlocking the business. The bank needed to create an understanding that cards could be used and were secure. It had to get customers to start using their cards for online purchases – and make sure there were secure sites for them to transact on. When the bank brought in a layer of security, this gave assurance to customers but also, critically, to merchants, who realised they too were protected, and quickly jumped on the e-commerce bandwagon as well.

In summary, as a leading bank in the UAE, Emirates NBD made a major contribution to the creation of the market for e-commerce by not only opening up its cards for use online, but encouraging and rewarding customers for their usage.

AN EVOLVING SOLUTION: THREE PHASES OF DEVELOPMENT

When Emirates NBD first implemented its 3-D Secure authentication solution, through Network International, in late 2010, it applied two-factor authentication for e-commerce transactions, establishing customer identity based on what the customer knew (password) and what the customer had (card details).

This solution immediately resulted in a dramatic decrease in fraud, and registrations for the service among customers steadily increased. Between 2010 and 2015, 3-D Secure successfully delivered on the bank's aim to reduce fraud and add security to online payments, and the growth in volumes of transactions demonstrated how much customers appreciated it.

However, the solution also added a certain amount of friction into the process and Emirates NBD detected from customer feedback that this was beginning to cause some frustration among customers. The Card team recalls that customers needed to set up a password and remember it for future use. In the context of the number of passwords they had to remember with e-commerce and digital channels opening up, this was a challenge, with customers often forgetting them. This meant that they had to re-set the password at the time of the transaction, and in turn this led to some abandoned transactions.

In order to further enhance customer experience and reduce friction while still controlling fraud, Emirates NBD then moved to a dynamic approach, based on the use of one-time passwords (OTPs). With this solution, there was no password to be remembered by the customer. For each transaction, the customer received a one-time authorisation code. This reduced friction in many cases. However, it added further friction in both low value payments and regular transactions (such as utility bill payments) – especially as the codes were sent by SMS, so when people were travelling and didn't have roaming, they wouldn't receive the OTP.

Thereafter Emirates NBD naturally progressed from dynamic to transparent authentication – governed by dynamic field-programmable monitoring rules – combined with a real-time predictive neural network fraud prevention model provided by CA Payment Security Suite. This was deployed for the bank through Network International. The third phase of the solution further enhanced 3DS fraud prevention by enabling real-time transparent authentication.

CA Payment Security Suite pinpoints fraudulent actions that are occurring among legitimate ones based on advanced neural network behavioural models. Powered by machine learning techniques, this captures data about individual user behaviour. This allows certain transactions to pass through without an OTP, and only when transactions are deemed risky and an OTP is necessary, it is sent by both email and SMS, making it easier for people to receive them even while travelling.

For regular e-commerce users in particular, friction is dramatically reduced, as is the dependency of the solution on the infrastructure for SMS and email delivery. As a consequence, transaction abandonment rate dropped to 2%, without a sacrifice of further fraud losses.

At this point, Emirates NBD is enabling, as far as possible, completely frictionless payments... to be completed by just using a card. Instead of challenging the customer every time, the bank is doing it only at appropriate junctures to improve the customer experience.

Suvo Sarkar, Senior Executive Vice President & Group Head – Retail Banking and Wealth Management, Emirates NBD says, “There has been a notable growth in the volumes of e-commerce transactions – a 13% year-on-year increase in transaction volumes (2015 to 2016) according to data from CA’s Data Science Team. Importantly, the bank is seeing a scaling up of use not just of credit cards but debit cards as well. This shows that customers are confident enough of the security to use their own money for e-commerce transactions – not just the money they are borrowing from the bank.

THE ROLE OF NETWORK INTERNATIONAL AND CA TECHNOLOGIES: TRUSTED PARTNERS

Since Emirates NBD first began working on 3-D Secure with CA Technologies and Network International, the bank has valued not only the contribution of the technology it needs to underpin its e-commerce strategy for online card payments, but also broader input to that strategy.

In 2010, the bank first began to work with Arcot Systems [subsequently acquired by CA Technologies] and was impressed by their entire payment

security platform, as well as by the global experience they brought, of working in multiple markets, with multiple large organisations.

Arcot assisted Emirates NBD by sharing case studies from other companies around the world, helping the bank understand how different markets reacted, how customers reacted and how they viewed the customer experience. When they came in to implement the solution, they were able to suggest other options, how the bank could go beyond just challenging customers to provide passwords, different steps it could take to prevent fraud, how it could implement a second line of defence et cetera.

It was also critical for the bank to understand how many transactions were going through secure channels, and how many were not, and CA Technologies gave Emirates NBD a good deal of support to help determine this, to identify drop-off rates, to isolate areas of friction and work out how to reduce them. This enabled the bank to move to the next phase of its implementation.

The Cards team highlights the important role CA Technologies and Network International played in Emirates NBD's move to transparent authentication. They significantly helped the bank to engineer how the solution would work and how to fine-tune it. CA Technologies, Network International and the bank now share a common vision for how to exploit transparent authentication going forward. Together, the three companies are currently challenging about 30% of transactions, enabling around 70% of transactions to go through frictionless, and the goal is to reduce that challenge rate substantially over time by implementing ever-smarter rules and other innovative technologies offered by CA.

CA Payment Security Suite, in partnership with Network International, has helped Emirates NBD to reach a point where it can authenticate legitimate cardholder transactions without interrupting the cardholder's checkout process. The solution heightens precision in distinguishing fraudulent transactions from legitimate ones creating a secure, frictionless and easy checkout experience for cardholders while helping to provide protection against the threat of online card fraud.

The solution enables a combination of model-based rules and a sophisticated neural network platform that is optimised continuously by analysing between 50 and 200 variables and more than 50,000 types of data.

The solution's fully configurable fraud prevention rules engine enables Emirates NBD's fraud team to adapt the model thresholds on a continuous basis, as fraud trends emerge. Rules can be adapted within minutes of threats being identified, at the issuer's will. This flexibility and granularity enable the system to give the bank greater risk management intelligence and protection.

LOOKING TO THE FUTURE: GOING MOBILE

The future landscape for e-commerce in the UAE will be heavily shaped by the shift to mobile commerce and in-app payments, making it critical for Emirates NBD to transform its approach to accommodate the mobile channel, and take advantage of security developments such as tokenisation [replacing static, sensitive credentials such as card numbers with virtually substituted, less sensitive data to limit the impact of a breach], anticipate the Card team.

“Emirates NBD has been instrumental in driving innovation in the banking and payments space in the UAE,” Sarkar adds. “We have a best-in-class mobile banking platform, and we are the first to implement mobile contactless payment through Emirates NBD Pay, and also offer very secure services like the Mobile Location Confirmation through the mobile banking app.

The bank reacted quickly to the mobile commerce trend, Sarkar continues. “The whole shift in the past couple of years to mobile commerce has been driven in large part by new age unicorns like Uber, Zomato and Souq, and we started to work with them relatively early. Our aim has been to ensure that it’s an Emirates NBD card that gets into mobile wallets first, and that we can work with companies like these to understand how to scale mobile commerce solutions,” Sarkar adds.

For Emirates NBD, a critical consideration will be to ensure that in this move to mobile, the bank is able to maintain an easy, convenient payments experience for its customers, without exposing itself to high levels of fraud. “The next wave will be mobile commerce, and we must work out how to continue to be a first mover, to enable further e-commerce growth, and to carry on growing our own business, but with reasonable and adequate fraud protection in place. We are confident in CA and Network International, as our trusted partners going forward, to help us deal with market developments as they happen,” Sarkar concludes.

ABOUT

Finextra

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About CA Technologies

CA Technologies is a leader in securing 3-D Secure card-not-present transactions, protecting over a billion e-commerce transactions each year for over 13,000 individual card products, thousands of card-issuing banks and over 200 million cardholders worldwide. Payment Security solutions from CA Technologies provide zero-touch authentication to help card issuers minimize online fraud while providing a frictionless checkout experience for cardholders. Access to a consortium model, sophisticated risk analytics and dynamic, granular bank-defined rules help to identify emerging fraud patterns and take action on potentially fraudulent transactions in real time. In addition, the advanced neural network models analyze available data to accurately identify legitimate transactions reducing the number of genuine transactions that are declined. Our case management system provides immediate access to fraud data to help manage fraud alerts and cases more efficiently. As a result, issuers can more effectively combat e-commerce fraud, decrease transaction abandonment and create a better experience for cardholders. To learn more about CA Technologies' Payment Security portfolio, please visit www.ca.com/payment-security.

About Emirates NBD

Emirates NBD is a leading banking Group in the region. As at 31st December 2017, total assets were AED 470.4 Billion, (equivalent to approx. USD 128 Billion). The Group has a significant retail banking franchise in the UAE and is a key participant in the global digital banking industry, with over 90 per cent of all financial transactions and requests conducted outside of its branches. The bank was declared the Most Innovative Financial Services Organization of the Year at the 2017 BAI Global Innovation Awards.

The bank currently has 230 branches and 1040 ATMs and SDMs in the UAE and overseas and a large social media following, being the only bank in the Middle East ranked among the top 20 in the 'Power 100 Social Media Rankings', compiled by The Financial Brand. It is a major player in the UAE corporate and retail banking arena and has strong Islamic Banking, Global Markets & Treasury, Investment Banking, Private Banking, Asset Management and Brokerage operations.

The Group has operations in the UAE, Egypt, the Kingdom of Saudi Arabia, India, Singapore, the United Kingdom and representative offices in China and Indonesia.

The Group is an active participant and supporter of the UAE's main development and community initiatives, in close alignment with the UAE government's strategies, including financial literacy and advocacy for inclusion of People with Disabilities under its #Together Limitless platform. Emirates NBD Group is an official premier partner of EXPO 2020. For more information, please visit: www.emiratesnbd.com

About Network International

Established in 1994, Network International LLC is the largest acquirer in the UAE, and a leading payment solutions provider in the Middle East and Africa region (MEA), servicing more than 70,000 merchant partners and 200 financial institutions across 55 countries. The company's service offering comprises a comprehensive range of payment products and services for both the Issuing and Acquiring segments of banks, financial institutions and retail merchants including end-to-end consultancy ranging from planning and designing to developing of new card and consumer finance products and services. In addition, the company offers several value-add products including data analytics, scoring and loyalty solutions. Network International has Operation centers in the UAE, Egypt, Jordan, South Africa and Nigeria, with its corporate head office in Dubai. The company recently acquired Emerging Markets Payments Holdings Limited (EMPH) and continues to invest in strategic partnerships that will increasingly see its influence spread across the region.

As the first independent vendor certified by both Visa & MasterCard for card payments in the Middle East, Network International is a Principal Member of Visa International and MasterCard International in the UAE and enjoys extension of its MasterCard License in other key countries. It is also a member of JCB and Union Pay card schemes, and it owns and manages the Diners Club International Franchise in the UAE, Egypt, Lebanon and Jordan. Network International is a Payment Card Industry Data Security Standard (PCI DSS) certified company.



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