

客戶名稱: 國泰世華銀行
 CUSTOMER: Cathay United Bank

簡介
 Overview

國泰世華銀行(國泰世華)是國泰金融控股股份有限公司(台灣最大的私人企業金控公司)旗下的子公司。國泰世華是一家全方位服務銀行,擁有超過160多家國內分行和眾多海外據點服務消費者與企業客戶。國泰世華銀行在企業金融方面提供完整的產品與服務,並擁有經驗豐富的行員致力協助客戶推展商務成功,提供企業完整與高穩定度的金流解決方案;台灣許多大型的電子商務公司如PChome及Yahoo雅虎等,都將重要的金流與資金調度交付予國泰世華銀行來服務;消費金融方面,國泰世華提供符合個人與家庭金融需求的各種消費性金融產品與服務,在網路與行動金融服務上更是業界領先與創新之代表,透過線上服務,即可24小時提供存放款、信用卡、基金、信託、保險、證券、期貨等服務,真正做到「One Stop Shopping」的服務經驗。

Cathay United Bank (CUB) is a subsidiary of Cathay Financial Holding Company, the largest private business financial holding company in Taiwan. The Bank is a full-service bank serving consumers and businesses with over one hundred and sixty domestic branches and numerous overseas offices. For businesses, CUB offers a complete line of products and services, as well as experienced staff members who are committed to providing comprehensive and highly secured banking solution in helping their customers to achieve business success. Many famous e-commerce companies in Taiwan have selected CUB to handle their important cash flow and delivery, such as PChome & Yahoo. For consumers, CUB offers different consumer banking products and services to meet the financial needs of individuals as well as families; for the Internet and mobile banking needs, CUB offers its innovative and industry-leading 24-hour Internet services in withdrawal, deposit, credit card, fund, trust, insurance, securities & futures, etc, which is a real "one-stop shopping" service experiences.

挑戰
 Challenge

近年來,以行動裝置上網的趨勢快速發展,國泰世華銀行為搶得先機,掌握行動金融服務商機,率先同業推出「My MobiBank我的隨身銀行」行動理財金融服務,為全國第一家於智慧型手機提供「銀行帳戶服務」之銀行。為持續吸引新客戶並加強客戶對該行的品牌形象及使用程度,國泰世華銀行立即尋找能支援各種行動裝置非約定轉帳的解決方案,必須要有足夠的保護以協助客戶對抗日益嚴峻的安全挑戰,並且能滿足與日俱增的網路交易安全需求。

With the rising trend of mobile computing in recent years, CUB took the industry lead by launching "My MobiBank" to facilitate the mobile banking services and as the first bank in Taiwan to provide bank account services on the smartphone. In order to continue attracting new customers and enhancing the brand image as well as encouraging more usage of the banking services, CUB was seeking for a solution that can support various mobile devices for non-agreed account transfer and offer sufficient protection to customers against the increasing security challenges and fulfill the rising needs of online transaction.

解決方案
 Solutions

- 可靠的安全措施,提供更強的認證與交易簽署功能,以強化其網上銀行服務
- 獲市場驗證的雙因子認證密碼鎖(2FA Security Token) 方案

- A reliable security measure with stronger authentication and transaction signing capacity to enhance the security of its Internet banking services
- Market-proven 2FA Security Token solutions

客戶得益
 Customer Benefits

- 保護網路交易安全,提供客戶能夠信任與安心的網路服務
- 提供客戶便利及跨裝置(如PC/手機/平板電腦等)與跨國界的金融付款服務
- 雙因子安全認證密碼網路銀行服務是拓展大中華區市場兩岸三地服務的最佳利器
- 該服務除應用在客戶服務外,亦提供企業內部認證服務使用,透過OTP積極發展多元的服務

- Safeguard online banking transaction to provide customers with trusted and secured Internet services
- Provides convenience and cross-device (e.g. PC, mobile, tablet, etc.) and cross-country payment services
- Strengthen services with 2FA security banking solutions, which is a best tool for expanding business in the Greater China area
- Extend the solution from customer services to internal authentication services and diversify services offering via OTP appliance

國泰世華銀行以Automated的領先IT服務和i-Sprint的雙因子認證密碼鎖解決方案,鞏固其在銀行業的領導地位

根據研究機構Forrester 2011年發佈的美國銀行統計報告,儘管網路銀行用戶數量持續增加,但與所有銀行用戶相比的整體比率(35%)仍維持不變。對於未有採用網路銀行的用戶而言,最令他們顧慮的就是安全性和隱私保護。因此,一旦安全顧慮獲得妥善解決,將帶給銀行莫大的商機。

同時,根據Gartner公司調查顯示,在過去的一年,流動支付使用者數量已從1.605億增加到2.122億。另外, IDC Financial Insights也預測到了2017年,透過流動裝置進行交易的整體購買量將超過一兆美元。這些流動支付使用者當中,48%對於安全感到顧慮,而22%則不完全信任交易過程中的處理技術。

台灣澳圖美德資訊科技有限公司(Automated)是區內著名資訊科技服務供應商自動系統集團有限公司(ASL)旗下的附屬公司,擁有能力解決這些日益彰顯的挑戰。ASL和亞太區的許多IT廠商建立夥伴關係,並且在提供安全方案方面取得卓越往績。ASL理解到真正的需求才剛開始浮現,而一個更高的安全標準亦將很快成為基準,特別是對於諸如政府機構、大學和金融機構而言,因為這些組織比較容易遭受安全威脅。

國泰世華銀行是台灣領先的銀行之一,當時正積極尋求方法以順應愈來愈多的網上交易需求和安全挑戰。不僅是為了要符合中華民國銀行公會(銀行公會)的安全標準,更重要及其一貫的目標是保護龐大客戶的利益和滿足他們的需求。因此,與其逐一解決一連串的安全威脅,國泰世華採行更明智的方法,運用一套主動且完善的方案,開啟數位生活新視野。

Cathay United Bank solidifies its Leadership Position in the Banking Industry with Automated's leading IT services and i-Sprint's 2FA Security Token Solution

According to a 2011 Forrester study on the U.S. banking statistics, even though the number of online bankers has consistently increased, the overall ratio of them (35%) out of all bankers stayed the same. For the non-adopters of online banking, the biggest concern is security and privacy. This presents huge opportunities for banks once the security concerns are appropriately addressed.

Meanwhile, over the past year, the number of mobile payment users has risen from 160.5 million to 212.2 million, according to Gartner. By the year of 2017, overall purchase volume over mobile devices will exceed US\$1 trillion, projected by IDC Financial Insights. Out of these mobile payment users, 48% of the users are concerned about security, and 22% do not fully trust in the technology to process transactions properly.

Taiwan Automated Systems Limited (Automated), a subsidiary of Automated Systems Holdings Limited (ASL) who is a leading IT services provider in the region, has the capability to address the growing concerns. It has numerous partnerships with IT vendors across the Asian Pacific region and track records to provide security solution. ASL sees that the real demand is just starting to rise. An even higher security standard is soon to become the norm, especially for the organizations like government agencies, universities, and financial institutions which are more vulnerable to security threats.

Cathay United Bank, one of the leading banks in Taiwan, was trying to figure out a way that echoes the rising needs of online transaction and security challenges. To meet the security standard of the Bankers Association of the Republic of China (BAROC) was one thing, whereas protecting the interest of their huge customer base and facilitate their need has always been the goal. Therefore, instead of tackling an array of security threats one by one, it makes more sense to deploy a proactive and comprehensive solution that opens up new horizons of digital life.

挑戰 - 率先推動台灣網路銀行安全的行動方案

在構思運用一個安全網上交易方案時，國泰世華最先想到的必要措施就是動態密碼機制(OTP)，這項技術提供一種簡單的方法以解決部分的安全顧慮，例如當攻擊者竊取靜態密碼後發動的重複性攻擊。事實上，OTP已獲得廣大運用，但單憑這項技術若以手機簡訊模式並不足以抵禦安全威脅，例如當使用者更改手機電話號碼，或者智慧手機遭受木馬病毒感染，或使用電信公司簡訊轉發功能，這些情形下OTP將會被轉發；且簡訊無法跨國傳送，並不適合商旅人士。因此，另一個必須考慮的關鍵機制就是OTP的傳送方法。硬體憑證(Token)被認為是這問題的解決辦法，因為它可以阻擋中途攔截，提供理想的離線加密。

然而，網路銀行在台灣才剛起步，而銀行公會仍未建立一套通行的業界標準。雖然其他同行從未做過同類的計劃，但國泰世華的努力將提高網上銀行的安全標準門檻。國泰世華注意到這正在快速增長的電子商務領域是一個不可避免的趨勢，而且也是奠定業界標準與國際接軌的必要措施，因此與Automated合作將此計劃付諸行動，展開完整的專案部署。國泰世華的終極目標是要解決安全問題，提供用戶更便利的服務取代使用銀行自動櫃員機，及延伸業務至電子化同時也拓展至涵蓋其他地區，因為安全的網路銀行服務是拓展大中華業務的必要條件。

方案 - i-Sprint雙因子認證密碼鎖解決方案

國泰世華在為這項創新的計劃尋求夥伴時，針對多家不同廠商進行審慎徹底的評估，這些廠商各有令人印象深刻的方案以及在不同領域行業的成功記錄。Automated憑藉獲市場驗證的IT服務能力獲得青睞。Automated一直致力提供高品質服務，因此建議國泰世華採用由ASL的全資附屬公司i-Sprint Innovations(i-Sprint)提供的卓越通用認證平台。i-Sprint是一家區域性的資訊安全軟體公司，總部位於新加坡，專為全球金融機構和高安全性敏感企業提供安全認證和訪問管理方案。

i-Sprint的雙因子認證解決方案包括交易簽署功能以保護交易安全，為國泰世華提供一個額外的安全防護方案，用以驗證客戶的網路身分。銀行將發給網路銀行客戶一個憑證(token)，用來產生動態密碼和靜態密碼，以存取個人帳戶資料、執行網路交易。這個雙重認證方案也提供一個可延伸，同時支持未來認證需求的可插入式認證模塊(Pluggable Authentication Module, PAM)，能夠支援市場上廣泛的認證方法，而這項彈性也是國泰世華採納i-Sprint的解決方案的關鍵理由之一。

這項交易程序對於終端使用者而言，可看得到的部分就是動態密碼硬體憑證(OTP hardware token)，此種方法已獲得領先國際銀行採納成為新的業界標準。每一個憑證在發行時都已和特定使用者的帳戶進行配對，因此即使被交換也不會影響另一個帳戶。同時，它可減少對銀行自動櫃員機的需求，因為很多交易都可以透過此方式安全且便利地執行，節省銀行自動櫃員機和維護成本。國泰世華亦能夠利用一個共同的雙重認證平台，在不久的未來提供更多網上服務。

在執行面上，Automated的大規模安全專案管理、跨平台系統整合、以及訂制服務支援等豐富經驗，確保所有獨特系統都能與雙因子認證平台成功配置。由於雙因子認證對於國泰世華而言是一種新的技術，因此Automated和i-Sprint為國泰世華提供有關此最新技術的智識，由系統架構、應用整合、乃至於營運需求等。他們同時為國泰世華提供有關技術整合與基礎設施設置等建議，確保既有的網路上銀行應用程式可與雙重認證方案無縫地整合。Automated在IT服務與金融領域的領導地位，使其成為國泰世華的優秀夥伴。Automated在這項專案引用了業界的最佳實踐，細心留意不同營運領域的需求，涵蓋從系統建置到端對端安全憑證運用程序，例如採購、安全管理、客戶支援服務等，促成雙因子認證密碼鎖(OTP)服務的成功推出。

結語 - 建立新的業界標準

Automated一站式的IT服務和i-Sprint的雙因子認證安全解決方案逐漸獲得客戶認可，他們協助國泰世華強化其業界領導地位以應對現今快速變遷的電子商務環境。這項協力合作以及進行的新技術建置，將繼續保護使用者的寶貴資產，確保他們擁有一個更簡單、安全而沒有疆界的數位生活。此項專案也為其他金融機構同業開啟接觸日趨流動化與多樣化生活型態客戶的商機，同時也喚醒各行各業的企業迎接此新的支付與生活型態。

Challenge – First initiative in Taiwan to launch mobile banking solutions

In deploying a solution for secure online transactions, CUB's first must-have in mind was a one-time password (OTP) mechanism, an easy option to resolve part of the security concerns, such as replay attacks when the static password has been obtained by the attacker. In fact, OTP had already been widely deployed, but it is not enough to fend off the security threats with the SMS alone. There are cases when the phone number of the user was changed or the smartphone was infected with Trojan virus, and using the SMS forward services of telecommunications services providers. Both enable the OTP to be forwarded and so on; furthermore, the SMS cannot be delivered across country, which is not suitable for traveling merchant. Therefore, another key mechanism to consider is the method of delivering the OTP. A hardware token has been sorted to be the answer. It can oppose to interception, which ideally should enable offline encryption.

However, online banking in Taiwan is only an initiative and the BAROC yet to enforce a universally applicable industry standard. No peer banks had ever done this before. CUB's effort would set the bar higher for the security standard of online banking. Seeing this as an inevitable trend in the exponentially growing e-commerce area, and a must-have measure to define the industry standard and serves as the international gateway, CUB put this plan into action with Automated to deploy the entire project. The ultimate goal of CUB is to resolve the security issues, make it convenient for the users instead of using physical ATM, and to extend its business not only electronically, but also geographically, as secured Internet banking service is essential for banks to develop business in Greater China.

Solutions – i-Sprint 2FA Security Token

In selecting a partner for this innovative endeavor, CUB went through a thorough review process with different vendors that all had impressive portfolios and successes in various aspects and sectors. With the proven capability in IT services, Automated stood out from the pack. Automated is committed to provide quality services. It recommends a strong versatile authentication (2FA) platform provided by i-Sprint Innovations (i-Sprint), a wholly-owned subsidiary of ASL. i-Sprint is a regional Information Security Software company with its headquarters in Singapore. It specializes in providing premier credential and access management solutions for global financial institutions and highly security sensitive environments.

i-Sprint's 2FA solution includes Transaction Signing capabilities for transaction protection, which provides an additional layer of security solution for CUB to verify customer's online identity. Internet banking customers will be provided with a token to generate OTP and Static password for accessing personal account details and to perform online transactions and with data transaction capabilities. The 2FA solution also provides an extensible and future proof Pluggable Authentication Module (PAM) to support a wide range of authentication method in the market which is one of the key considerations for CUB to adopt i-Sprint's solution.

The most visible deliverable of this transaction process for the end user was the OTP hardware token, a new measure adopted by leading international banks as the new industry standard. Each token has already been matched with the particular user's account once they are issued, which thus will not affect another account if swapped. Furthermore, it eliminates the need for physical ATMs, as lots of transactions can be securely and

conveniently done this way, which essentially saves the cost on the deployment and maintenance of physical ATMs. It also enables CUB to offer more online services in the near future by leveraging a common 2FA platform.

On the execution side, Automated's extensive experiences in managing large-scale security projects, integration of cross-platform systems, and customized services support that ensure all unique system can be complemented well with the 2FA platform. Since 2FA technology was new to CUB, Automated and i-Sprint had educated CUB on this latest technology from system architecture, application integration to operational requirement. They also advised CUB on the technical integration and infrastructure setup to ensure existing Internet banking applications could be seamlessly integrated with the 2FA solution. Automated's leading position in the IT services and financial sector proved to be a great partner to CUB. Automated is leveraging the industry best practices into the project. It was attentive to different operation areas from implementation to end-to-end token deployment process, such as Procurement, Security Administration, Customer Help Desk, etc., which can be demonstrated with the successful launch of the 2FA Security Token Services.

Conclusion – Set a new standard for the industry

Automated's one-stop IT services and i-Sprint's 2FA security solutions that are starting to gain presence in the customers' pockets, who helped CUB solidify its industry leading position with the ever-changing e-commerce environment today. This collaboration and the ongoing implementation of the new technologies will continue protecting the user's valued assets, making their digital life increasingly easier, secure and boundless. This opens up an array of opportunities for the peer financial institutions to reach customers who are increasingly mobile and are leading more versatile life, and is also a wake-up call to businesses in all sectors to greet this new way of payment and living.

i Forrester Research: <http://www.forrester.com/Boosting+Online+Bill+Pay+Adoption/fulltext/-/E-RES60943>
November 3, 2011

ii Packaged Facts: <http://www.packagedfacts.com/Alternative-Mobile-Payment-6501335/>
November 2012