認識網上及流動支付

日期: 2015年5月23日 (星期六)
時間: 下午2時至5時
地點: 香港灣仔活道27號 職業訓練局大樓11樓

http://cloud4smb.hk

中小企雲端應用安全策略推廣計劃

SME Cloud Security
中小企雲端服務信息安全

『中小企業發展支援基金』撥款資助
Funded by SME Development Fund

工業貿易署
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計劃顧問及課程導師

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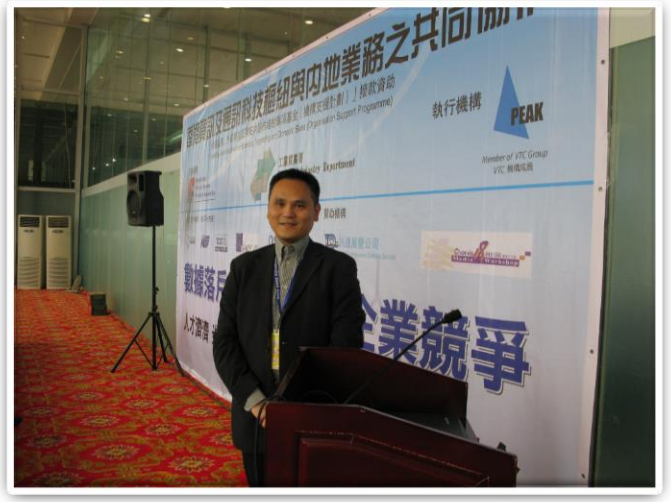

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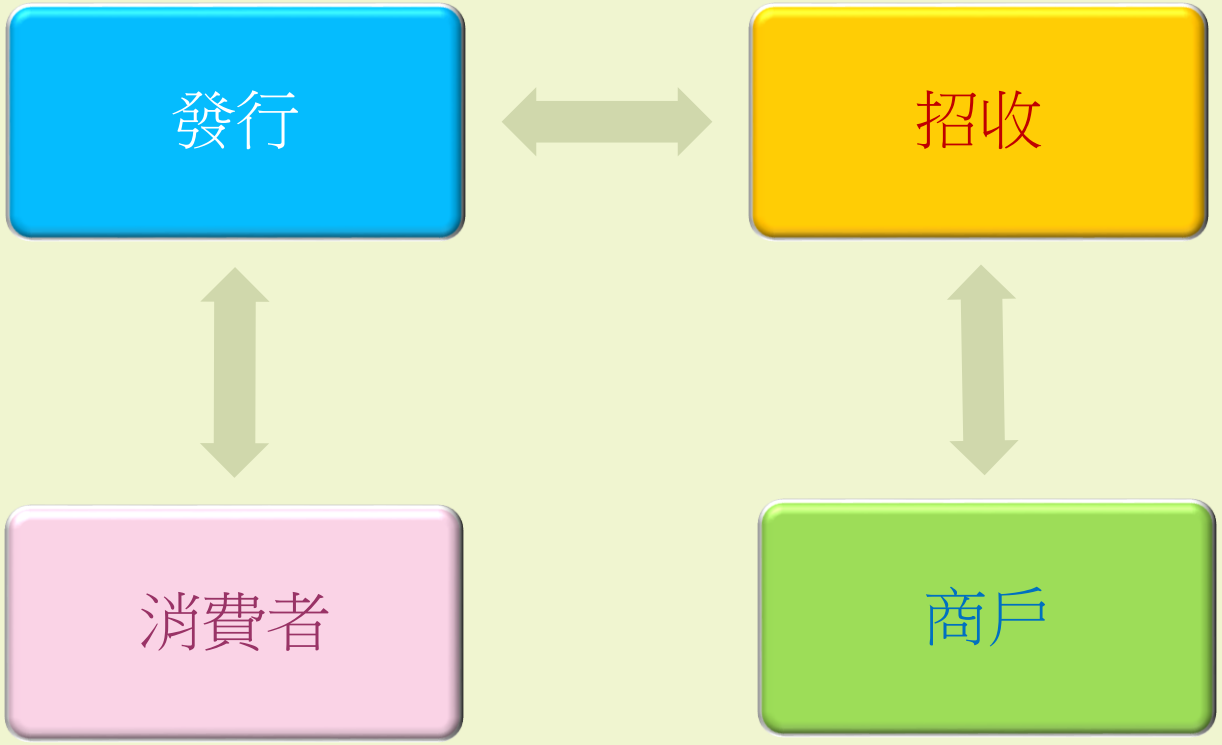
認識網上及流動支付

1. 電子商務的網上及流動支付你要知
2. 嘉賓講者
   - PayPal Hong Kong
3. 用戶端安全手段

1. 電子商務的網上及流動支付你要知務你要知

Payment Services (4-party Model)

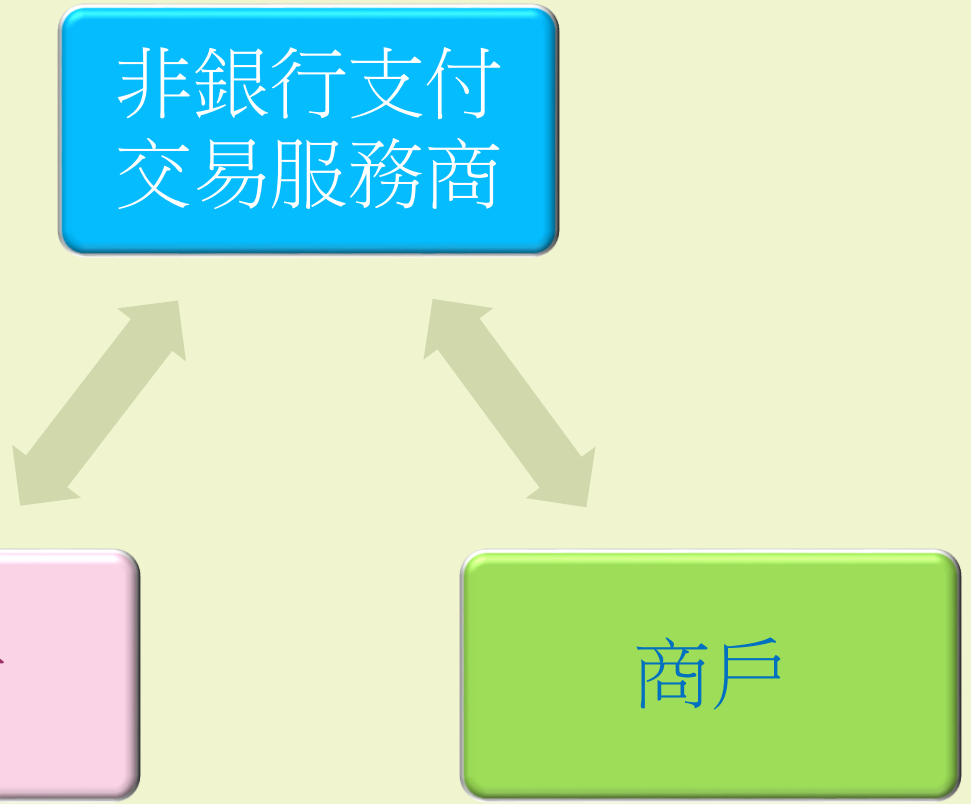
Business model:
Payment services



Source: *The role of Hong Kong Monetary Authority in supporting retail payments*, Esmond Lee, Cartes Asia 2014, 20 March 2014

Payment Services (3-party Model)

Business model: Payment services, fund pool and information pool



Source: *The role of Hong Kong Monetary Authority in supporting retail payments*, Esmond Lee, Cartes Asia 2014, 20 March 2014

網上及流動支付你要知務你要知

- 網上支付 Online payment
- 流動支付 Mobile payment

安全的網上交易

雙重身份驗證(Two factor authentication)

實物的使用令互聯網交易更安全

- Digital certificate within a smart card (HK Smart ID card) or electronic key (USB key)
- SMS-based one-time-password (OTP)
- Security token-based OTP

雙重身份驗證

Education video from The Hong Kong Association of Banks

http://www.hkab.org.hk/DisplayArticleAction.do?sid=5&ss=0

安全的網上交易

- 用戶端設備設置
  - Personal firewall 個人防火牆
  - Anti-virus software 防病毒軟件
  - Anti-spyware software 反間諜軟件
- 網上交易平台極少主動發電郵要求重設密碼
- 從預設或官網連結進入帳戶登錄

八達通 Octopus Online Payment

- Tapping Octopus on NFC-enabled Android mobile device
- 國內購物網 - 服務費折合為港幣的應付購貨金額之1.5% (以透過支付寶付款的淘寶網平台商戶為例)

Source: http://www.octopus.com.hk/get-your-octopus/where-can-i-use-it/list-of-places/online-payment/tc/index.html

E-Commerce Online Payment

- HKTDC Small Order Zone
  - http://small-order.hktdc.com/buy/en/buyer-guide/payment-options.html
- Taobao
- Alipay

網上及流動支付你要知務你要知

- 網上支付 Online payment
- 流動支付 Mobile payment

本地流動支付 - 用戶期望

3Cs

- Confidence 信心
- Convenience 便利
- Cost effectiveness 成本效益

Stored value facilities (SVF) 儲值設施

- Device based
  - Multi-purpose (Octopus)
  - Single-purpose (Coffee shop stored value card)
- Non-device based

本地流動支付現況及發展

現況

- Multi-purpose stored value card 根據銀行法例監管
- 無牌發出SVF 觸犯法例

SVF法例監管發展

- The Clearing and Settlement Systems (Amendment) Bill introduced into Lego on Feb 2015

SVF法例監管發展

- 獲發牌條件
  - 根據香港法律註冊成立的公司
  - 主要業務
  - 最低資本要求(on-going) HK$2,500萬
- Single-purpose SVF 不需要牌照
- 為了更好保護SVF的”Float”：要求與持牌人的資產、其他基金分開

Retail payment systems (RPS)
零售支付系統

- 處理轉讓、清算和結算小額交易：
  - Credit card schemes (e.g. Visa, MasterCard, UnionPay)
  - Debit card schemes
  - Merchant acquirers (e.g. banks, EPS)
  - Payment gateways (e.g. PPS, Electronic Bill Presentment and Payment EBPP)

零售支付系統(RPS) 監管發展

現況

- Code of Practice for Payment Card Scheme Operators endorsed by HKMA
  - American Express, UnionPay, Diners Club, EPS, JCB, Jetco, MasterCard, VISA etc.
- new legislative approach is proposed

NFC mobile payment

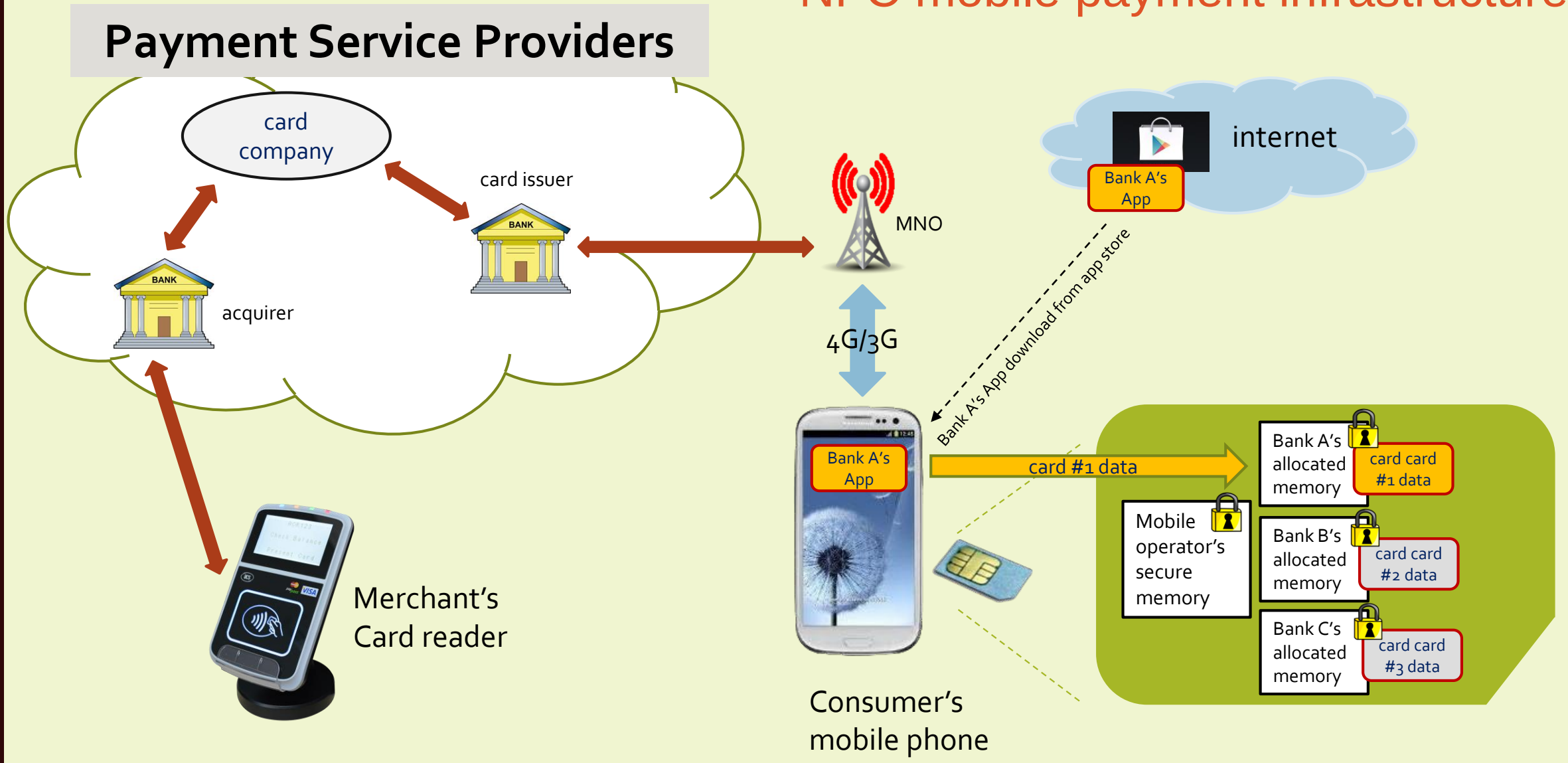
- Near-Field Communications (NFC)
- Two NFC-compatible devices transfer of data within 4~10 cm

NFC mobile payment infrastructure

Stakeholders:

- Regulator
- Payment service providers
  - non-banks / global players e.g. VISA, MasterCard, UnionPay
  - Banks
- Mobile network operators (MNOs)
- Handset manufacturers
- Secure Element Providers (e.g. SIM card/chip-set provider)
- Trusted service managers (typically working on behalf of payment service provider)

NFC mobile payment infrastructure



NFC mobile payment infrastructure

- Market driven
  - e.g. France Citizi (a jointly service provided by MNOs, banks and a transport operator)
- Government driven – setup an open and common infrastructure
  - e.g. Singapore IDA (awarded a contract to a consortium of MNOs, banks, NFC technology provider)

NFC mobile payment

- HSBC, Hang Seng Bank, BOC, Citibank launched NFC mobile payment services in 2013
- Octopus launched Octopus SIM and Octopus Online Payment services using NFC mobile phones
- Visa payWave and MasterCard payPass installed in merchant shops

The ideal NFC mobile payment infrastructure

From consumer point of view:

- Able to download available payment services from different payment service providers onto a single NFC-enabled device (i.e. multiple credit cards within a phone)
- Independent of MNOs
- Independent of handset hardware
- High level of security to protect transaction data and privacy

Possible NFC devices

- SIM card, Micro-SD card, Phone sleeve, Audio jack device
- A SIM card is good to support multiple payment service providers but it is owned and issued from a MNO

Possible NFC valued-added services

- Loyalty, rewards and coupons
- Advertisement
- Transportation and ticketing
- Physical access control

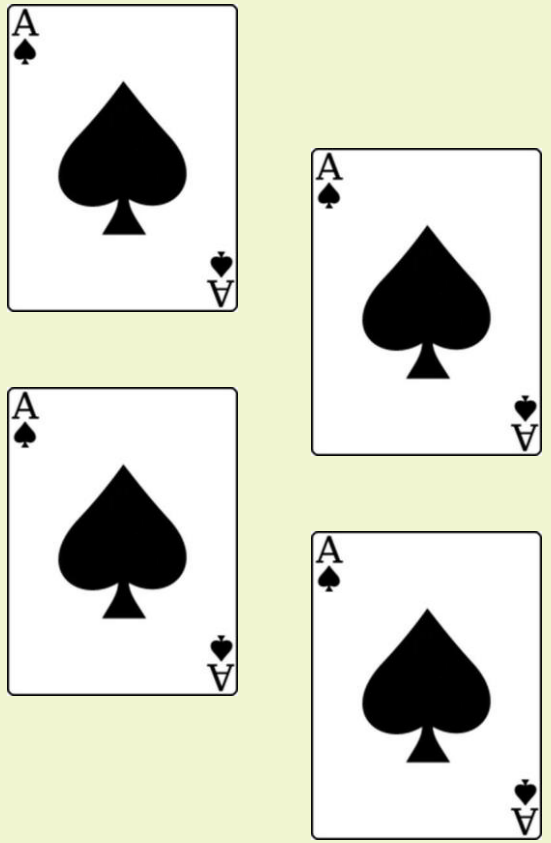
2. 嘉賓講者

PayPal Hong Kong

3. 用戶端安全手段

“A A A A”

- Authentication 身份驗證
- Access 存取
- Availability 可用
- Auditability 可審核



AAAA: Authentication

How to Authenticate 如何進行身份驗證

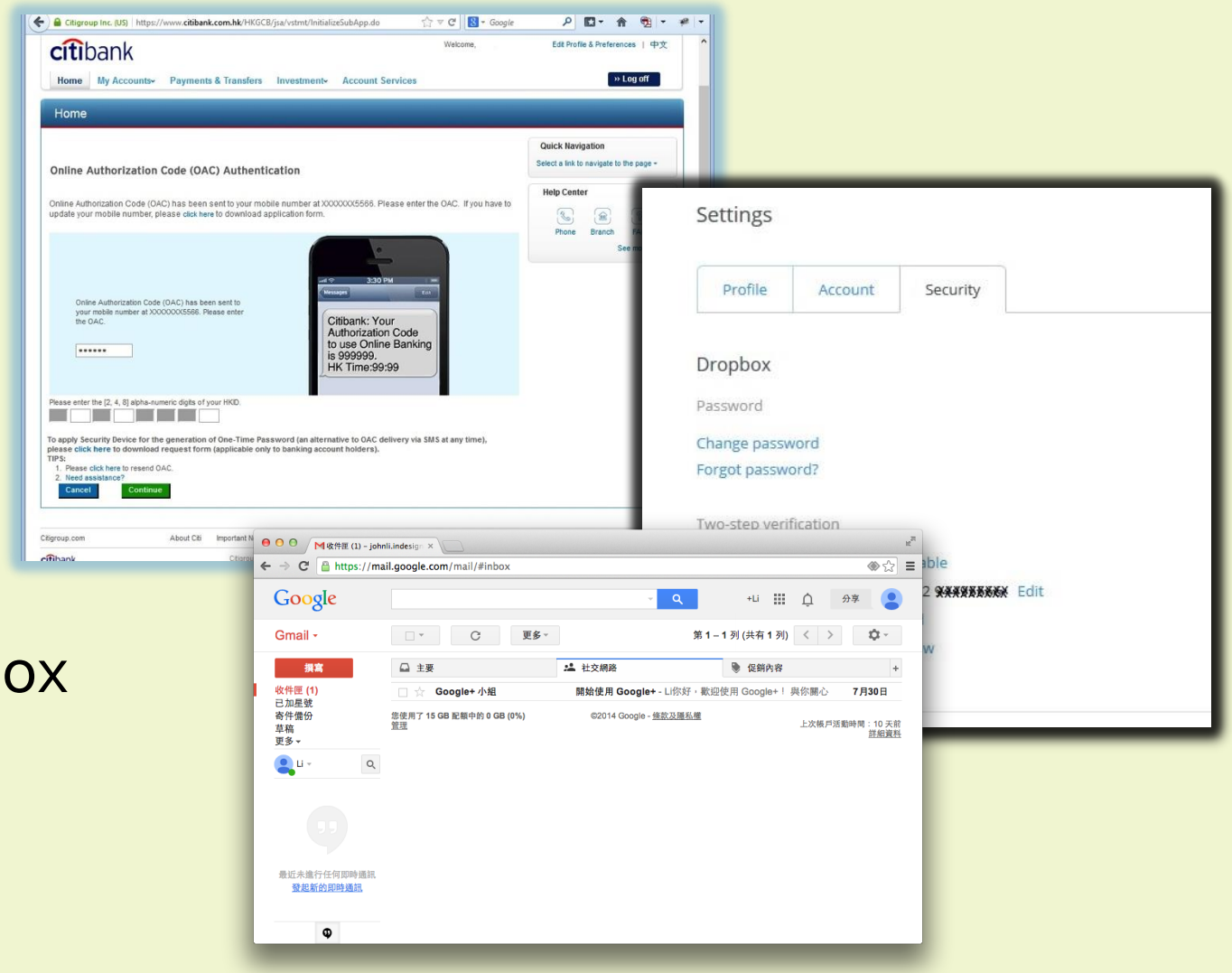
- Identity 身份識別
- Login 登錄

Authenticate identity 身份認證

2-factor authentication

(TFA) 雙重認證

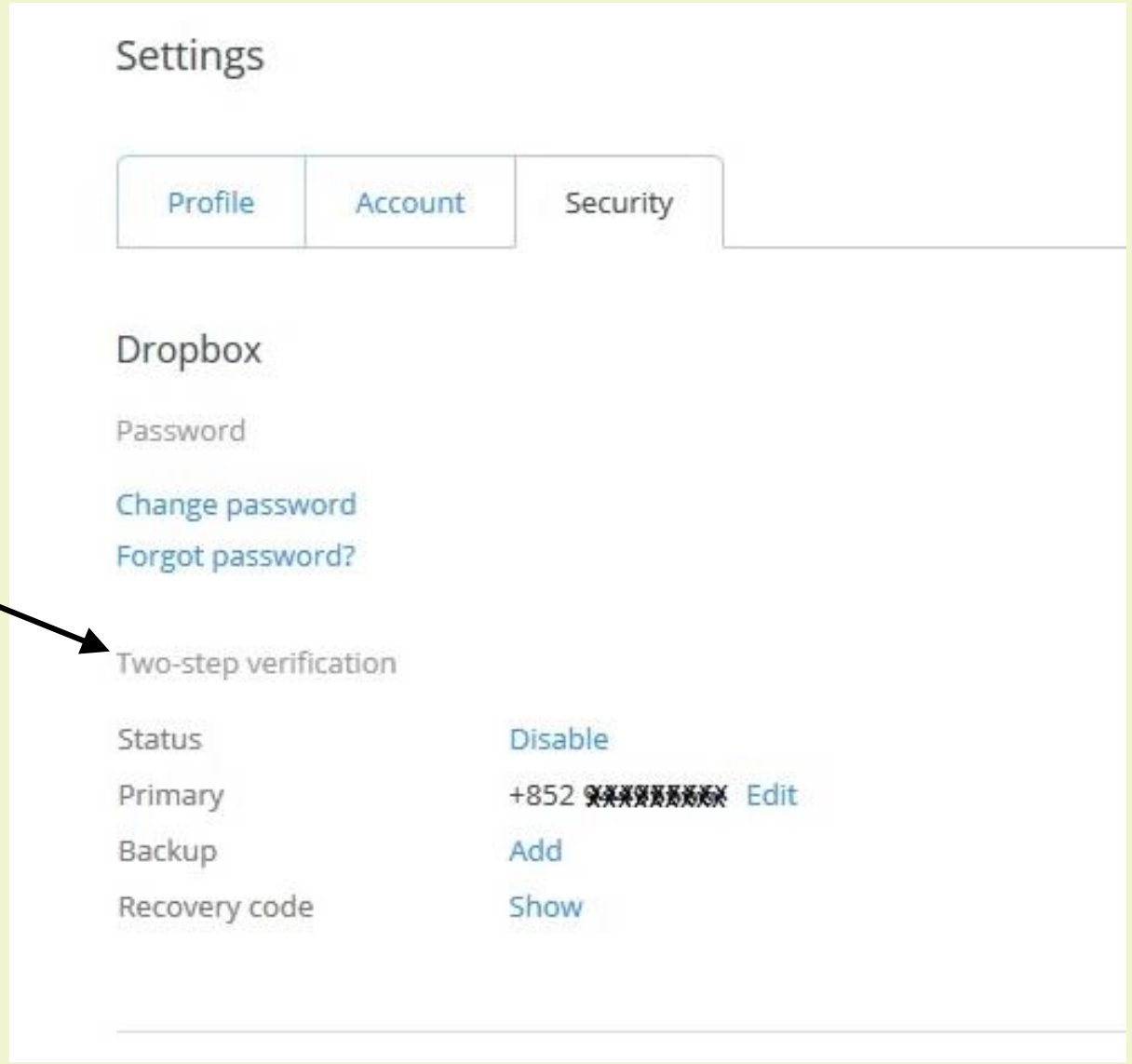
- e-Banking e.g. citibank
- Cloud storage e.g. Dropbox
- Email e.g. gmail



Dropbox setup (1/2)

Two-step verification

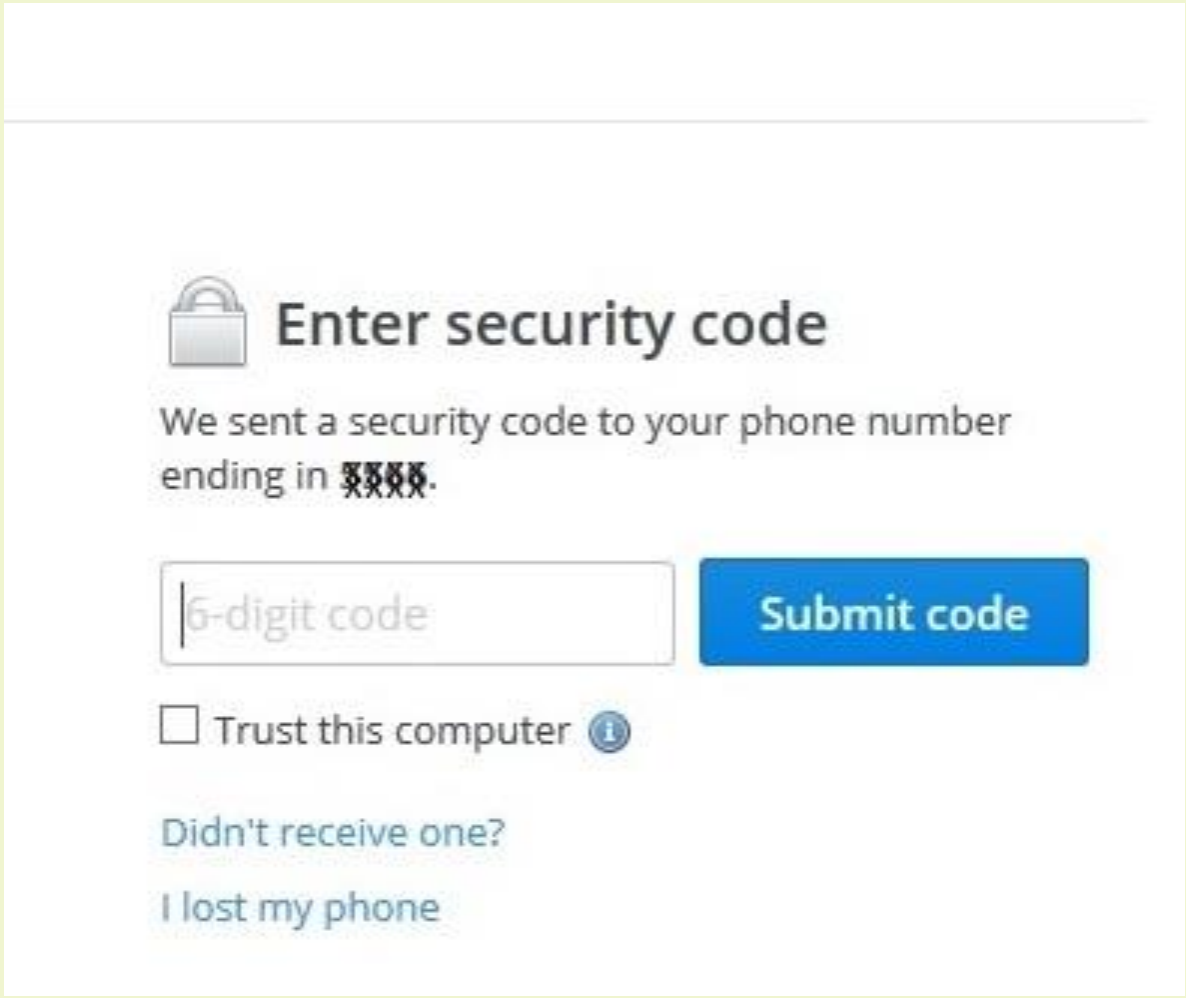
SMS one-time password via mobile phone



Dropbox setup (2/2)

Two-step verification

SMS one-time password via mobile phone



Email Setup (1/2)

mobile device access

2-factor Authentication

to authorize email access from a mobile device

Email Setup (2/2)

2-factor Authentication

SMS Text Message via mobile phone

AAAA: Access

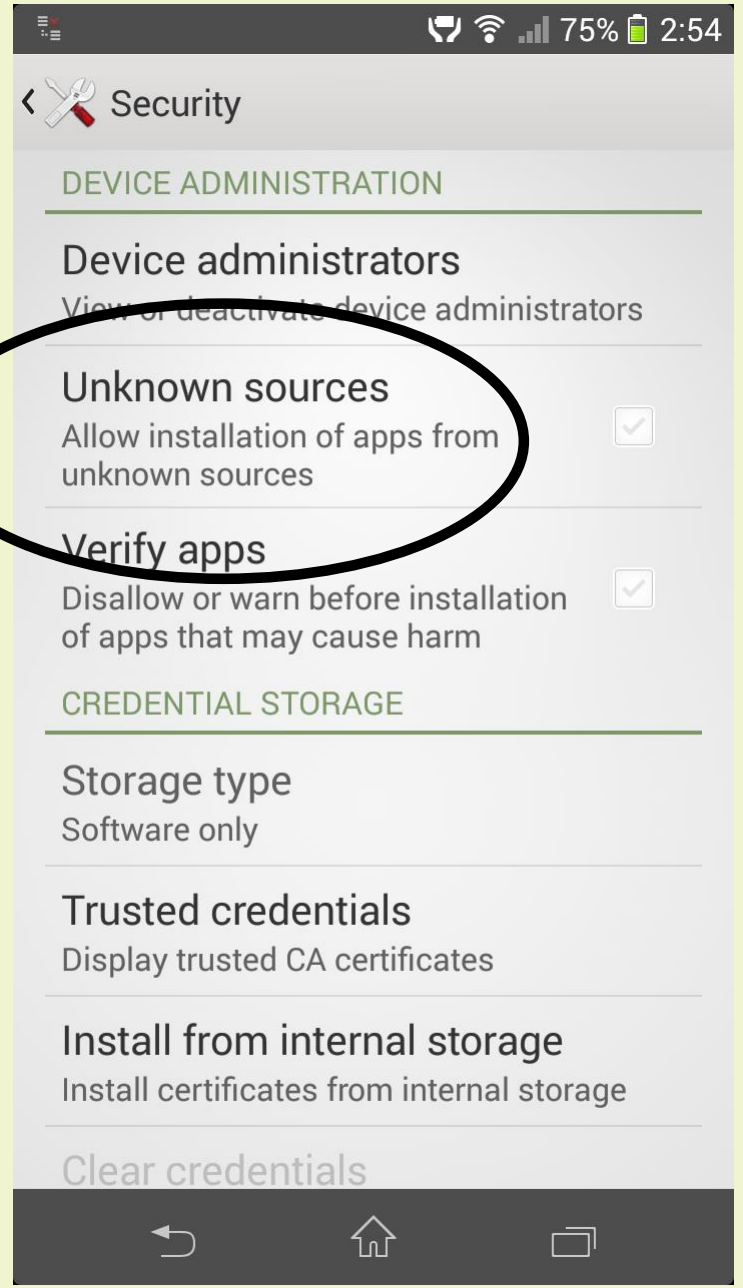
- Access control 訪問控制
- Privacy 隱私

Access control to protect privacy

保護個人隱私的訪問控制

Don’t allow installation of apps from unknown sources

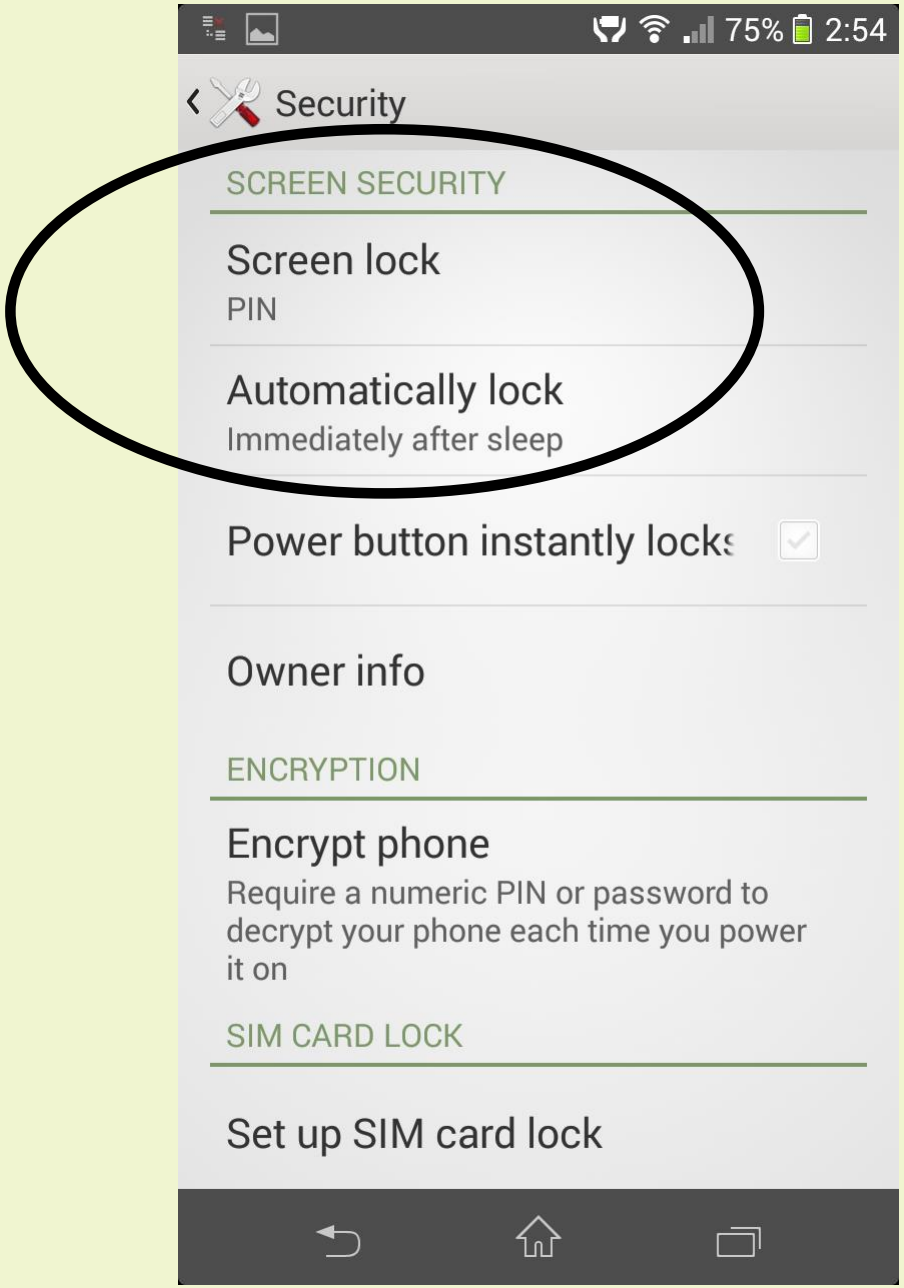
不要安裝不明來源的應用程序



Access control to protect privacy

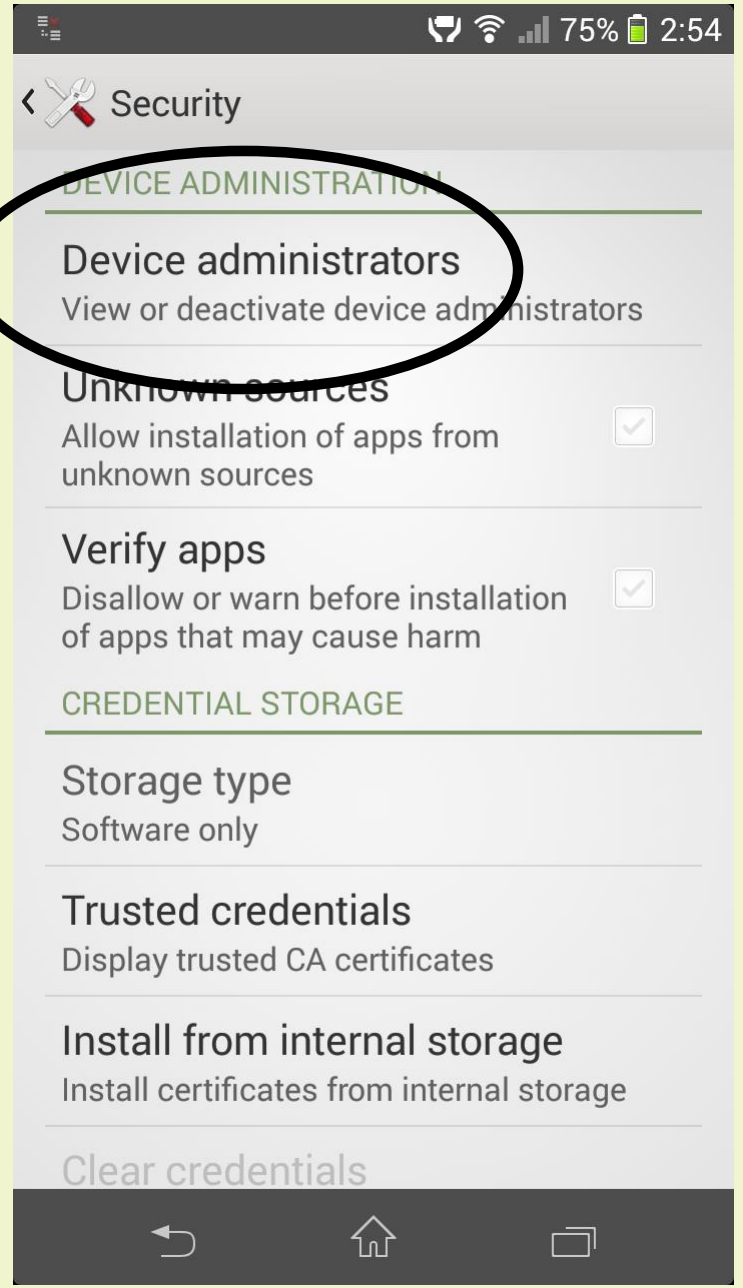
Lock phone (Android)

Lost phone (Android)



Lost phone setup (1/3)

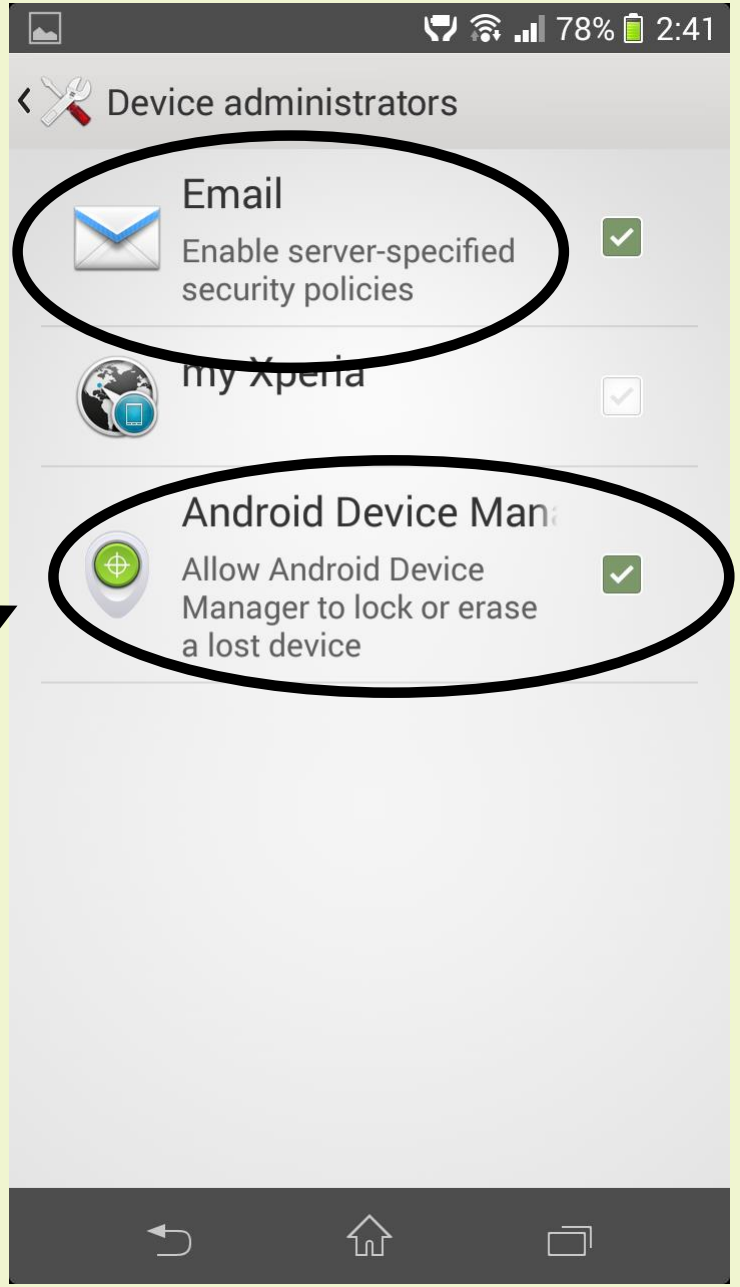
Device administrator
(Android)



Lost phone setup (2/3)

- Microsoft Office 365
- Microsoft Exchange ActiveSync Admin

Your Google Account

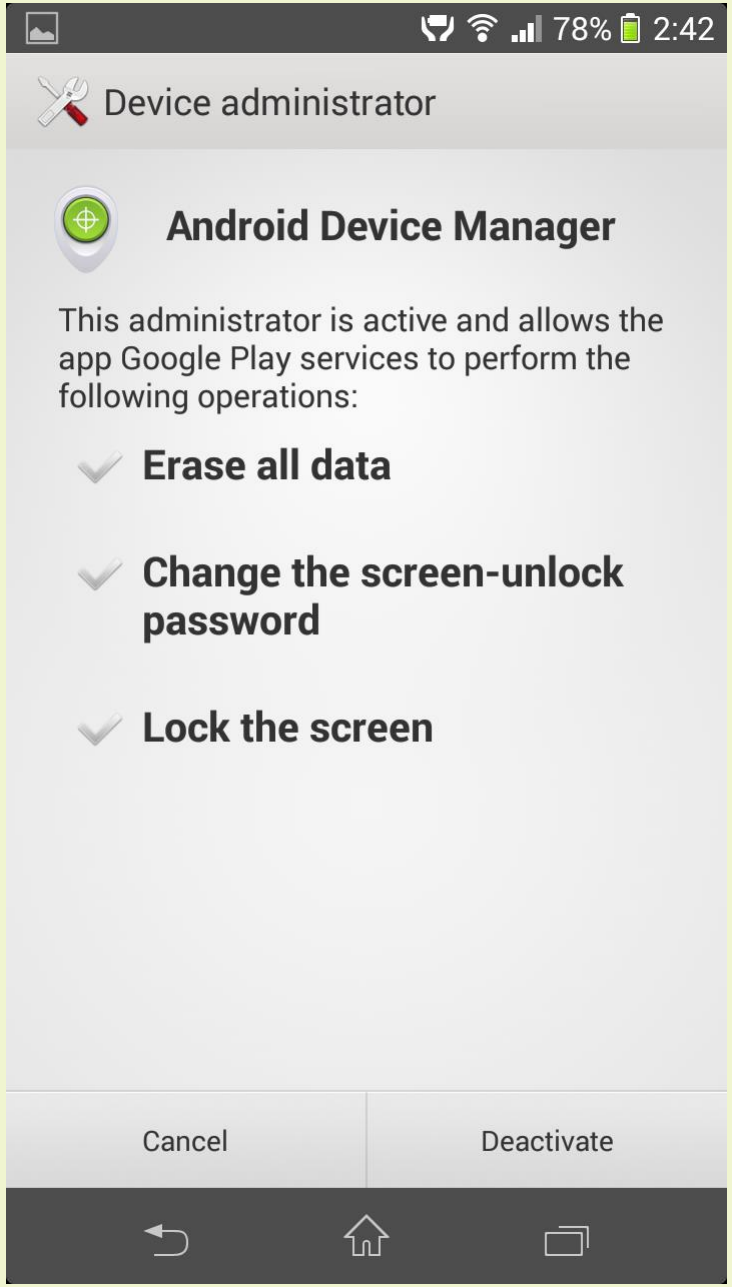


Lost phone setup (3/3)

Your Google Account

https://www.google.com/android/devicemanager

- Ring
- Erase
- Locate



AAAA: Availability 全天候可用

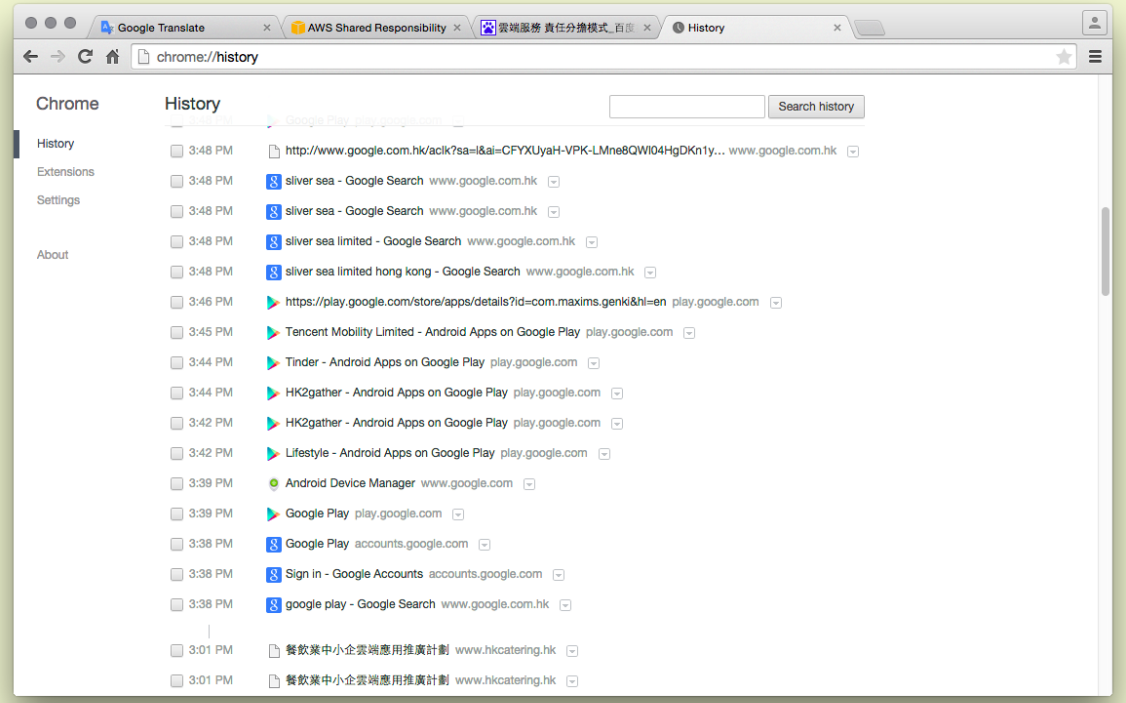
7 x 24 x 365

- System and data 系統和數據
- Backup 備份

AAAA: Audibility可審核

Logging & records of activities

- User identity
- Time-stamp
- Action & activity
- Location (IP addresses)



Hands-on

你的設備安全設置

資料來源：

http://www.hkma.gov.hk
http://www.pcpd.org.hk/cindex.html
http://www.infosec.gov.hk/tc_chi/main.html
http://www.infocloud.gov.hk/home/1?lang=tc
http://www.lapssolutions.com
http://www.taobao.com
http://www.alipay.com
http://www.ebay.com
http://www.paypal.com
http://www.google.com
http://www.apple.com/apple-pay
http://www.visa.com.hk
http://www.mastercard.com
https://www.hkab.org.hk/
http://www.consumer.gov.hk
http://www.octopus.com.hk

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