



Protecting Data in Electronic Payment

Sang Young 楊和生
Internet Society Hong Kong

Electronic Payment

- ... is a financial exchange that takes place online between two parties in form of digital means

Examples (in Hong Kong)

- Apple Pay
 - Alipay HK
 - Android Pay
 - BoC Pay
 - Electronic Cheque (e-cheque)
 - FPS
 - O!e Pay
- PayPal
 - PayMe
 - TNG Wallet
 - Tap&Go
 - Samsung Pay
 - WeChat Pay
 -

Common Methods

Credit/Debit Card

Mobile Device

Mobile App

NFC

QR Code

Online/Offline

Common
Concerns

Identity Theft

Privacy

Vulnerabilities

- Mobile OS
- In Apps

Online Fraud

Stolen Devices

Malware

Merchants/Banks
Security

Network
Reliability

Device
Performance

Tips ...



Debit Card vs Credit Card



Use one card / link one bank account



Check statement / transaction records

Tips ...

- Network Security
 - Ensure secure connection
 - OV Certificate vs EV Certificate
 - No insecure Wi-Fi



Tips

我的電子錢包



信用卡號碼：4541

🗑️ 移除



信用卡號碼：4966

🗑️ 移除

- Don't store credit card information in Merchant Websites



Tips ...

- Apps
 - Review Security & Privacy
 - Set transaction Passcode
 - Set the Maximum Transaction Amount



Tips ...

- Use Up-to-Date version of ...
 - Apps
 - Browsers
 - OS (Mobile, Desktop)
- Anti-malware tool



Tips ...

- Data / Identity Protection
 - email address
 - mobile phone number
 - remote voice mail access
 - remote call forward
 - internet call forward
 - date of birth

Tips ...



HOW PASSWORD
LENGTH WINS
THE INTERNET

Passwords 102

- Strong Password
- Don't use "same" password

NIST Password Guidelines 2019

- 8 character minimum when a human sets it
- 6 character minimum when set by a system/service
- Support at least 64 characters maximum length
- All ASCII characters (including space) should be supported
- Truncation of the secret (password) shall not be performed when processed
- Check chosen password with known password dictionaries
- Allow at least 10 password attempts before lockout
- No complexity requirements
- No password expiration period
- No password hints
- No knowledge-based authentication
- No SMS for 2FA



LogMeIn Accounts: ws...



Microsoft:wsyoung@w...



Other:wsyoung@proto...



Personal



root-account-mfa-devi...

371 162

Expires in 25 seconds

Copy

Tips...

- 2FA
 - SMS / Voice Callback
 - Apps (OTP)



Tips ...

- Activate “locate & wipe”
 - iOS: Find My iPhone
 - Android: Find My Device
 - Security Apps



Tips ...

Beware of **Phishing** Attack



Questions?