



Securing Mobile Devices in Health Industry



香港警務處

CYBER SECURITY AND TECHNOLOGY CRIME BUREAU

網絡安全及科技罪案調查科

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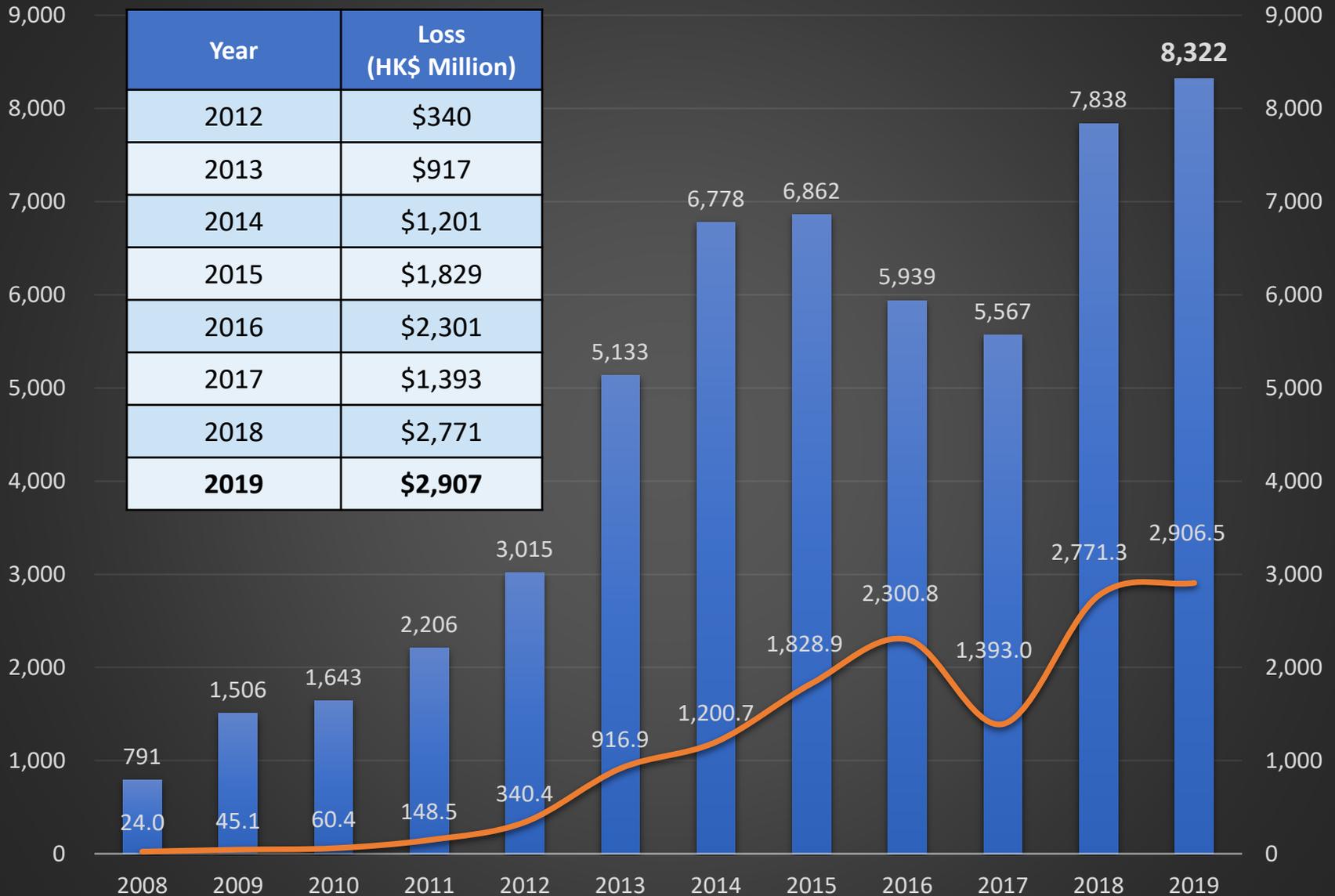
重要告示

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Technology Crime Situation in Hong Kong (2019)

NUMBER OF TECHNOLOGY CRIME PER YEAR

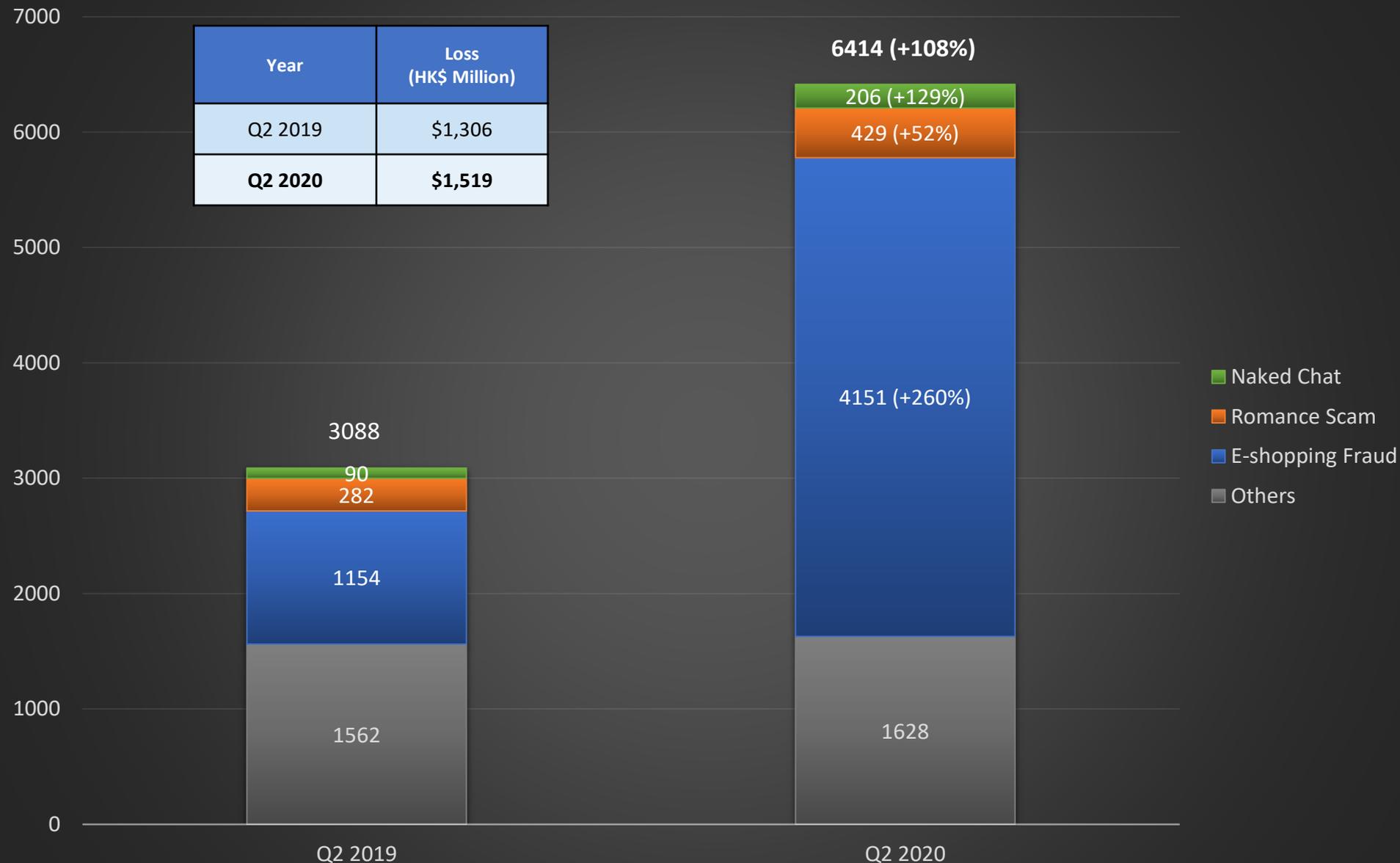


Year	Loss (HK\$ Million)
2012	\$340
2013	\$917
2014	\$1,201
2015	\$1,829
2016	\$2,301
2017	\$1,393
2018	\$2,771
2019	\$2,907

AMOUNT OF LOSS (HK\$ MILLION)

Technology Crime Situation in Hong Kong (Q2 2020)

Year	Loss (HK\$ Million)
Q2 2019	\$1,306
Q2 2020	\$1,519



E-shopping fraud

口罩肺炎 | 首半年網購口罩騙案共2292宗 涉7022萬元 96人被捕



社會新聞

讚好 0

撰文：孔繁桓 鄭秋玲

🕒 2020-07-29 17:22

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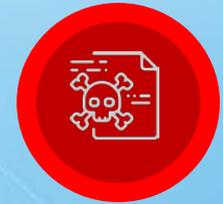
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Latest trends of cyber attack in 2020

Telephone Deception + Malware



Phishing website and email



Email impersonation



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Latest trends of cyber attack in 2020

Telephone deception + Malware



1) Claimed to be a Mainland public security officer

2) Deceived the victims that they were involved in criminal cases

3) Requested the victims to download an online banking application

4) Malware installed (For “*Security Protection*”)

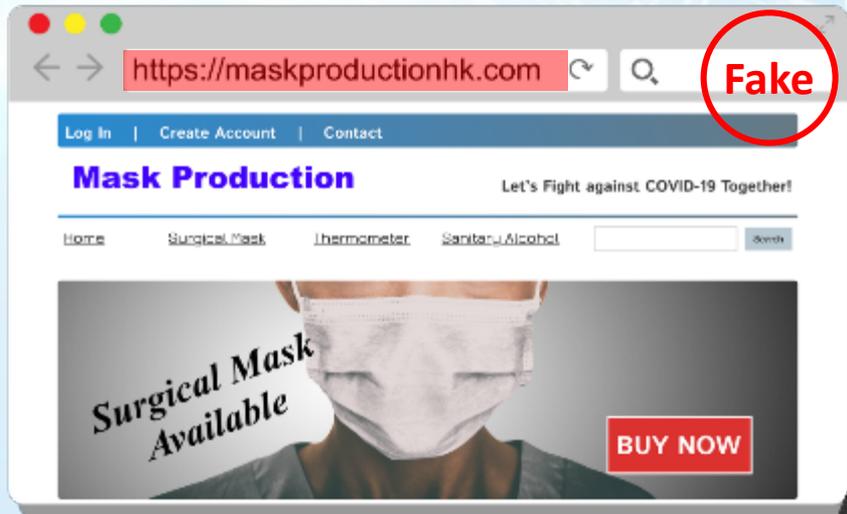
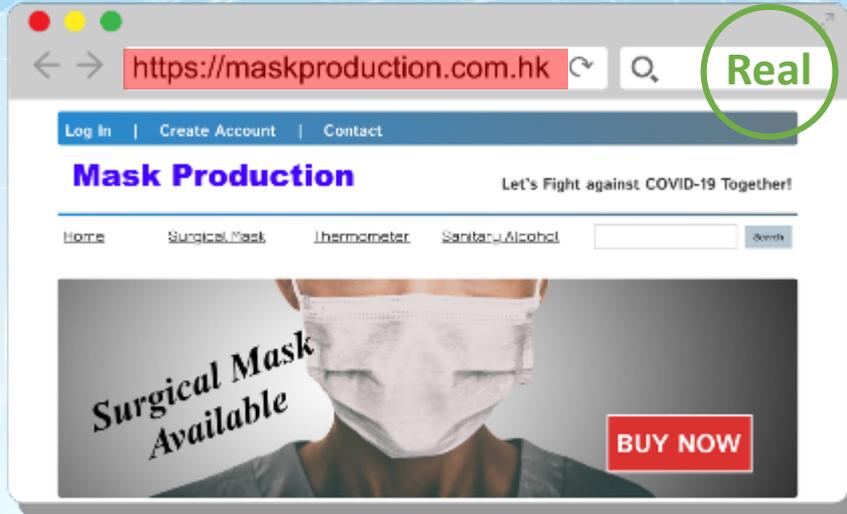
5) Bank accounts, passwords, One Time Passwords (OTP) were stolen

6) Money was transferred

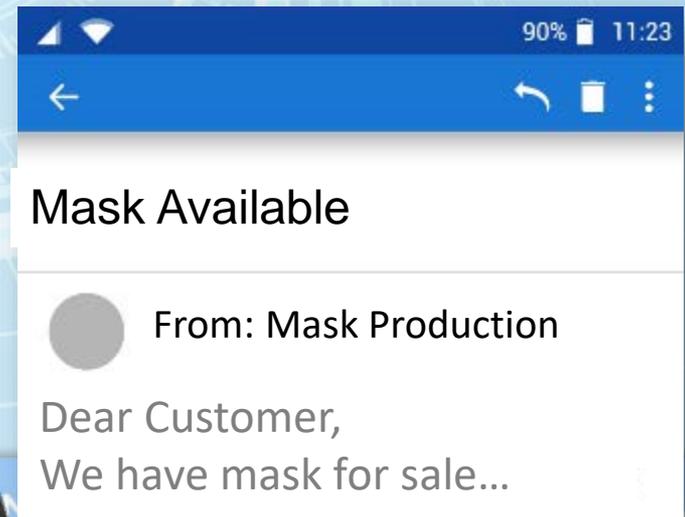
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Latest trends of cyber attack in 2020

Phishing website / email



- 1) Impersonated genuine mask retailers
- 2) Sent Phishing emails to companies / victims with fake domains



Latest trends of cyber attack in 2020

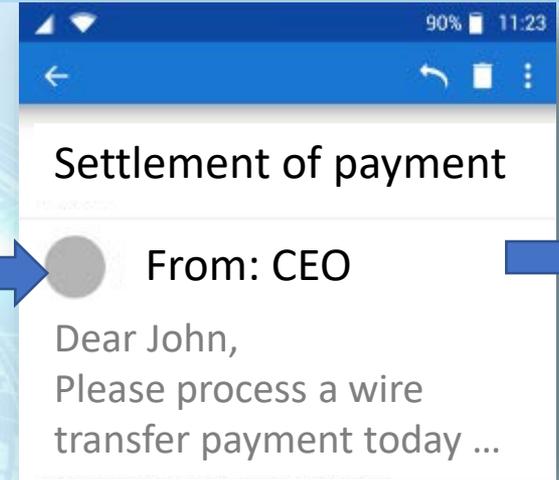
Email impersonation after breaking into the server



- 1) Installed malware via phishing website
- 2) Stole login credentials and entered the server



- 3) Got admin rights
- 4) Accessed / modified the system data



- 5) Email impersonation with a plausible request (e.g. wire transfer)

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Use of mobile devices in health industry

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Use of mobile device in health industry



Online diagnose

中大建港首間智慧醫院 一站式App免病人等等

2018年1月24日 中大醫院 智慧醫院

三地智能醫院看診流程特點 (部分)

代表香港中文大學醫院具該功能 代表台北慈濟醫院具該功能 代表港大深圳醫院具該功能

看診前	看診/住院期間	看診後
院方應用程式 (App) 功能 預約 1. 專症病人可用 2. 普通病人可用 3. 除了App, 病人亦可網上預約 4. 接獲病人求診 5. 列出就診時間表 6. 付掛號費及診金 7. 提供實時候候資訊, 病人毋須現場等候	院方應用程式 (App) 功能 報到及索取檢驗醫號 1. 另可用醫院內「報到機」, 若到十個以上專科老症, 系統會建議病人去到等待時間最短的專科求診 2. 搜尋醫院及其設施的語音	院方應用程式 (App) 功能 電子付款 1. 掃描螢幕上的二維碼 2. 院內即可入現金於自助付款機 3. 院內即可入現金於自助付款機 4. 院內即可入現金於自助付款機
	其他智能化措施 護士量度生理指數, 例如血壓、脈率及心率, 數據透過雲端系統記錄在電子護歷 推行「無片化」, 將醫療影像轉為電腦檔案給有需要病人	院方應用程式 (App) 功能 查詢病歷、檢驗報告 1. 有疑問可隨時向醫護查詢 2. 電子付款 3. 掃描螢幕上的二維碼 4. 院內即可入現金於自助付款機 5. 院內即可入現金於自助付款機 6. 院內即可入現金於自助付款機

其他智能化措施
病人於藥房前的機器上掃掃描藥單後, 藥房內會有機械臂自動按單取藥
掃描藥單上的二維碼可知藥物成分、劑量、用途等資料

* 上述功能及各醫院的智能化特點資料來源: 以上醫院 明報醫訊

Smart Hospital (+Internet of Things)

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Potential Risk: Internet of Medical Things (IoMT)

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Smart Home

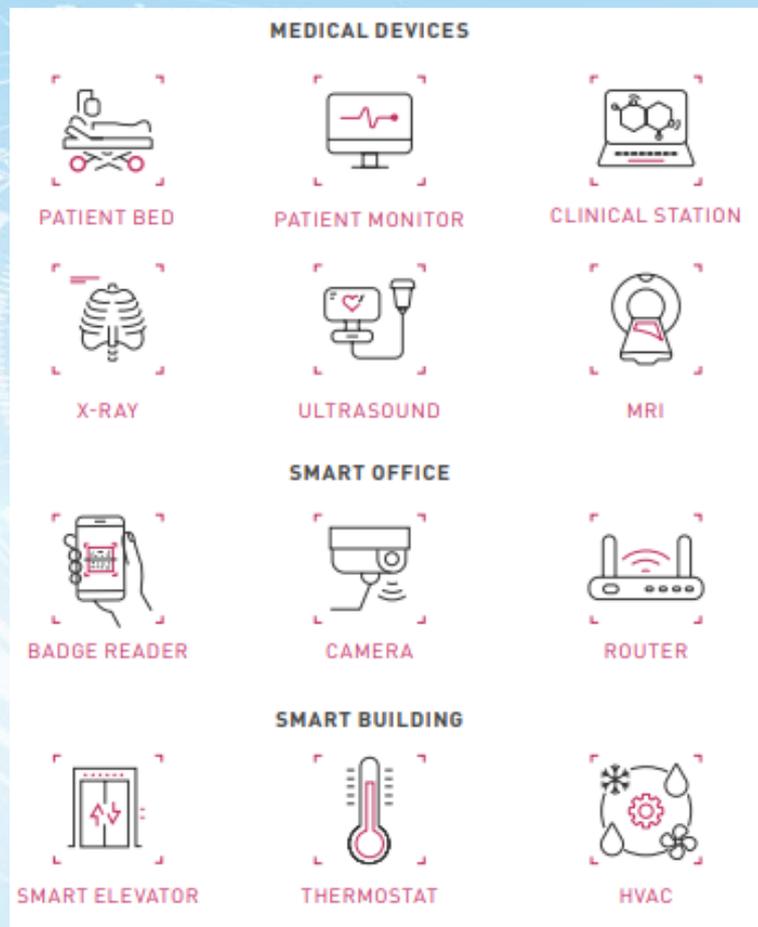


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Internet of Medical Things (IoMT)



Source: Check Point

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Internet of Medical Things (IoMT)

全國首例5G遙距手術 相隔3000公里為帕金森患者開刀

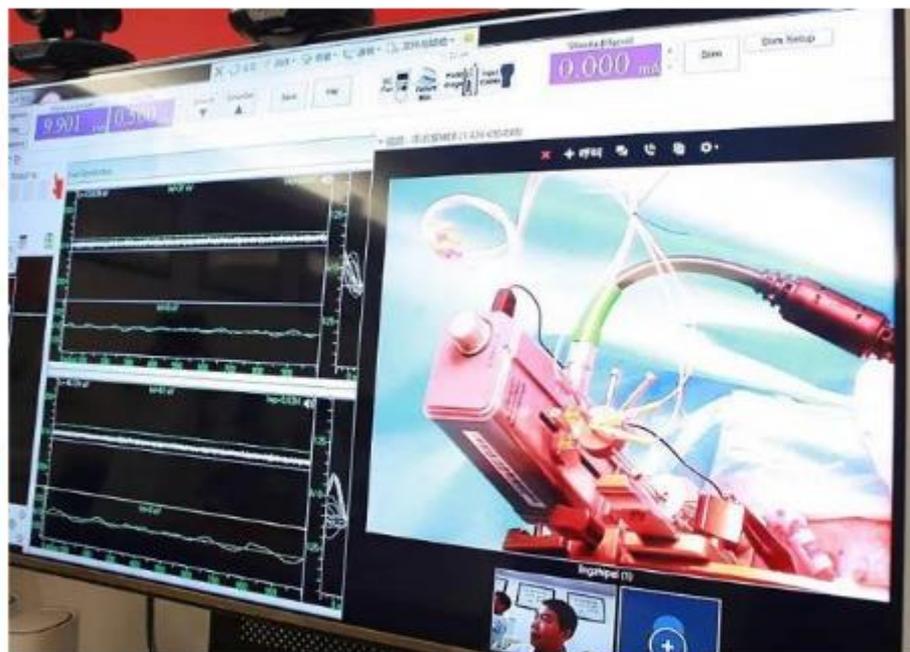
2019年06月06日 10:50

推介 84

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分享



屏幕實時輸出患者的腦內生理信號。(互聯網)

內地正式發放5G商用牌照，將有助於多個既有及創新行業發展，而關係到民生的醫療領域也將受益。今年3月，內地完成了全國首例5G遙距人體手術，兩地醫生在相隔3000公里的情況下，為一名帕金森病人進行腦部手術。

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Potential risk

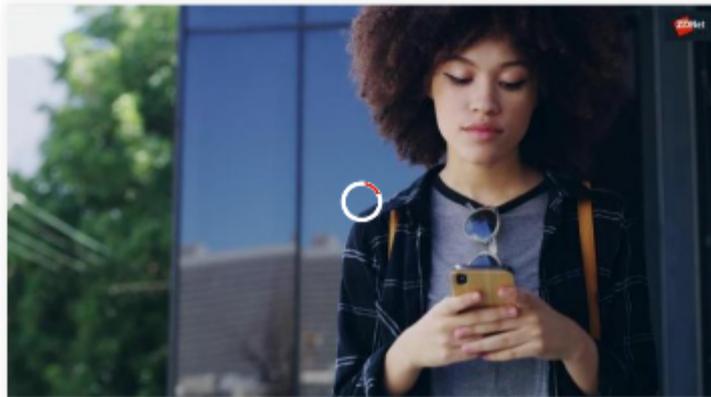
PART OF A ZDNET SPECIAL FEATURE: CORONAVIRUS: BUSINESS AND TECHNOLOGY IN A PANDEMIC

Proposed government coronavirus tracking app falls at the first hurdle due to data breach

The source code of a proposed app for tracing COVID-19 exposed user data after being published online.



By Cherie Osborne for Zero Day | April 20, 2020 — 08:45 GMT (06:45 SGT) | Topic: Coronavirus: Business and technology in a pandemic



NEWSLETTERS

ZDNet Announce Asia

ZDNet's Announcements newsletter offers a mix of stories, special offers and members only benefits.



RELATED STORIES



Security researcher publishes details and exploit code for a vBulletin zero-day



Security 1Password is coming to Linux

IoT Security Landscape

IoT is rapidly growing...

By the end of 2019, IoT adoption grew to an estimated 4.8 billion devices, an increase of **21.5%** from the end of 2018.

More and more newly developed IoT devices are network- or internet-connected.

By now, more than **30%** of all network-connected endpoints are IoT devices (excluding mobile devices) at the average enterprise.

...and has a big security problem

98% of all IoT traffic is unencrypted, exposing personal and confidential data on the network.

57% of IoT devices are vulnerable to medium- or high-severity attacks, making IoT the low-hanging fruit for attackers.

83% of medical imaging devices run on unsupported operating systems—a 56% jump from 2018, as a result of Windows 7 reaching its end of life.

Source: ZDNet

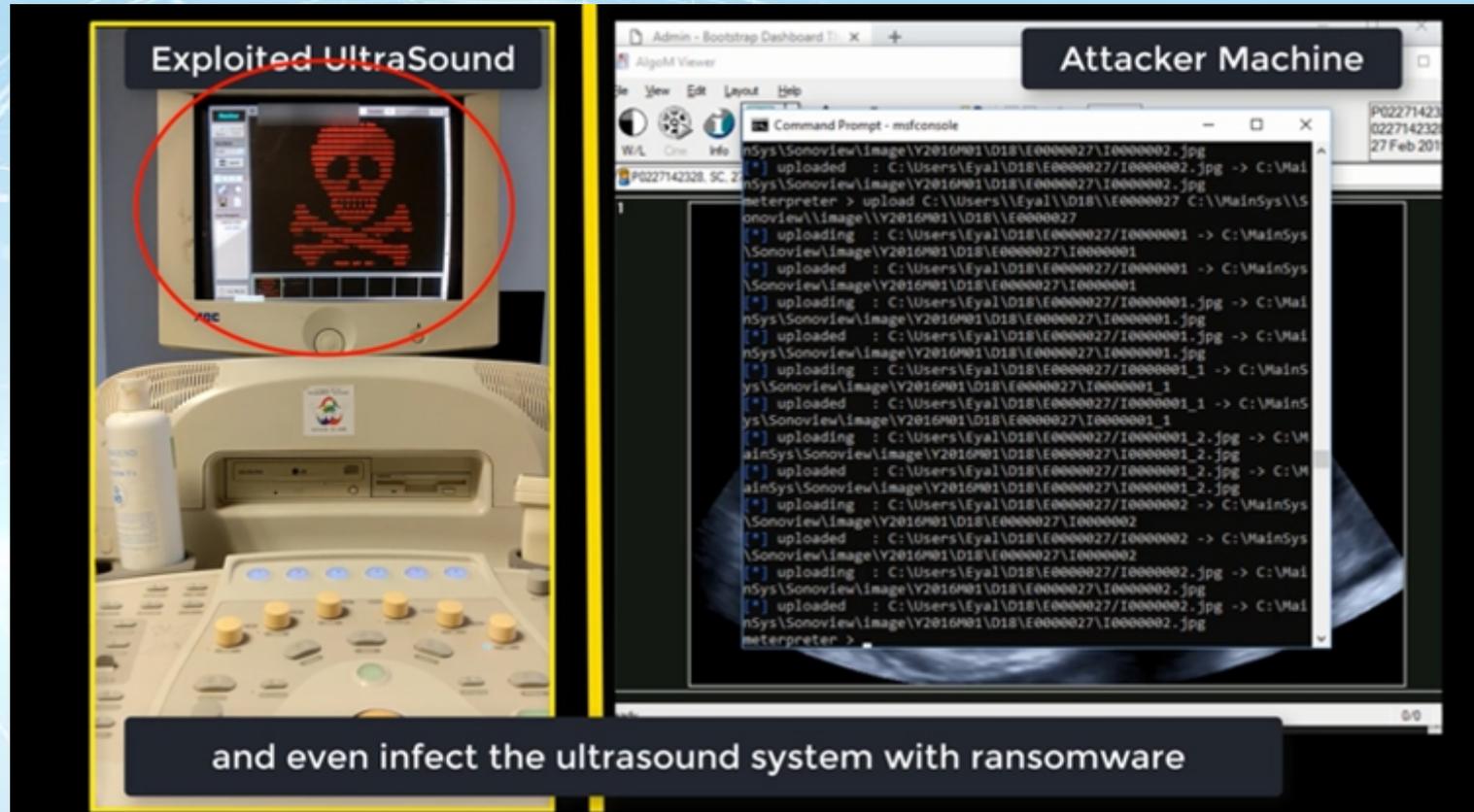
Source: Palo Alto Networks

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Potential risk



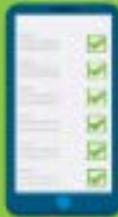
Source: Check Point Research

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INTERNET OF THINGS



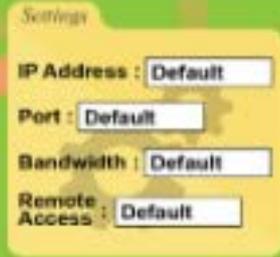
Use default name of device



Enable all features all the time



Insecure router settings



Use default settings



Use outdated firmware



Use default / weak password

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How to secure *IoMT* network?



- 1) Strong passwords
- 2) Reputation of the manufacturer
- 3) Higher security and privacy settings
- 4) Regular security update
- 5) No Legacy OS
- 6) Segment IoT devices across virtual local area networks (VLAN)
- 7) Enable active monitoring

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Potential Risk: Malware

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【手機App黑客】免費手遊、慳電程式隨時中招 警、專家教4招預防

免費下載慳電、手遊 App 隨時中招？

25款Android App揭含惡意程式！盜Fb(單)



25款Android App含惡意程式

盜Fb帳號！電筒、手遊、天氣App都中招

iPhone安全威脅 17款Apps被發現內藏惡意程式

Unwire.hk

發布時間：2019年10月28日 14:05

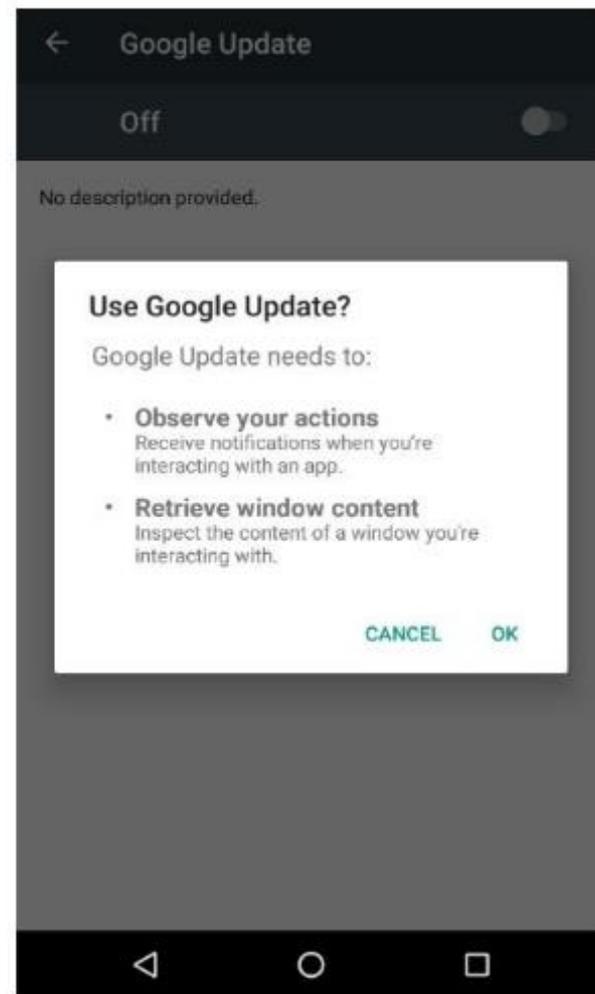


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新型 Android 木馬病毒假冒「Google更新」竊個資！337款App 遭駭客鎖定

2020/07/22 16:01

文 / 記者劉嘉琴



Source: Threat Fabric

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CHANNELS OF INFECTION



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Consequence

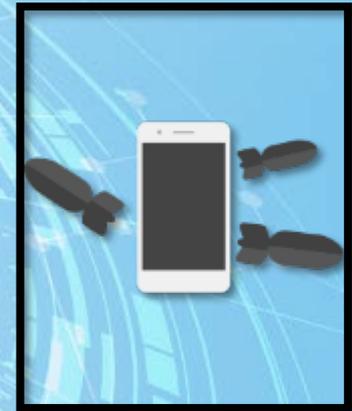
Hackers can



**Get your
personal data**



**Encrypt your
smart devices
by ransomware**



**Control your
smart devices
to launch
cyber attacks**

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How to protect from Malware?



- **Do not** click on suspicious hyperlinks;
- **Do not** install applications from untrusources;
- **Do not** root / jailbreak the smart devices;
- **Do not** open suspicious emails;
- **Do not** visit untrusted websites

- **Do** install anti-virus application;
- **Do** update Operating System, applications and anti-virus applications periodically;
- If in doubt, **Do** approach IT professional staff

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Cyber Security Campaign

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網絡安全運動



www.cybersecuritycampaign.com.hk

Cyber Security Campaign

- <https://www.cybersecuritycampaign.com.hk/>
- 1st Wave (Jun 2017) : Anti Botnet
- 2nd Wave (Aug 2018) : Security of Smart Devices
- 3rd Wave (Aug 2019) : IOT and Password

CYBER SECURITY CAMPAIGN

15,506,054
NEW BULKY BROWSEERS
YEAR 2017

565,203,565
NUMBER OF BULKY BROWSERS
YEAR 2017

3,707,731
NUMBER OF SMART
DEVICES YEAR 2017

1,150,796,570
SECURITY THREATS
YEAR 2017

YOU ARE MOST EXPOSED TO CYBER THREATS IF YOU THINK THAT YOU ARE NOT A TARGET!!
COME AND CHECK OUT MORE!!

CYBER SECURITY CAMPAIGN

Is Your Smart Phone Safe?

Be a Smart *Notizen*

Be Prudent With Your Smart Devices

Hong Kong Police Force
www.police.gov.hk

Cyber Security Campaign
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網絡安全運動

物 聯 網

Password

你就是安全的關鍵

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Hong Kong Police Force

香港電訊管理局
Communications and Information Technology Commission

香港電腦事故處理中心
Computer Emergency Response Team

香港個人資料私隱專員公署
Personal Data Privacy Commission

香港消費者委員會
Consumer Council

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SCANNING AND REMOVAL TOOLS

SMART DEVICES

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Security Settings on Zoom & Social Media

- Security Settings and Recommendations on "Zoom" -



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- Privacy Settings on Social Media -

This guide provides suggestions to set the highest privacy permissions for the following social media.



Facebook



Whatsapp



Instagram



Youtube

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Preventive Measures

中小型企業資訊保安指南 流動裝置保安



制定流動裝置使用政策

開啓流動裝置的
抗惡意程式保護



限制流動裝置存取公司資料

使用公司服務時需要登入認證



為流動裝置的資料加密

為員工提供資訊科技
保安認知培訓



在流動裝置設定嚴謹密碼及
啓動屏幕鎖功能

為流動裝置所連接的
公司網絡設立防火牆



為流動裝置安裝
遠端清除資料程式

禁止為流動裝置進行
「越獄」或「獲取根權限」



政府資訊科技總監辦公室
資訊安全網



香港電腦保安事故協調中心



香港警務處

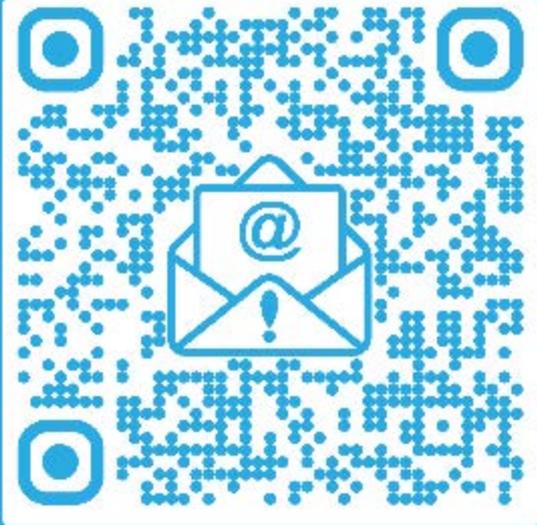
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**Romance
Scam**



**e-Shopping
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