

# Smart Use of Portable Storage Devices and Data Breach Handling



保障資料主任聯會  
**DATA  
PROTECTION  
OFFICERS'  
CLUB**

# Recent Incidents



## 選民資料電腦失竊 選舉事務處再解畫：無放入有鎖櫃 三日後方發現遺失

2017/4/10 — 21:56

Like 333 f t g+ 0 0



source: <https://goo.gl/AyAAEk>

## 378萬人私隱失竊 選舉處未解疑團 昨致歉 未交代選民資料為何帶特首選舉後備場

g+ t f 讚好 0

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### 選民資料失竊事件疑團

疑問

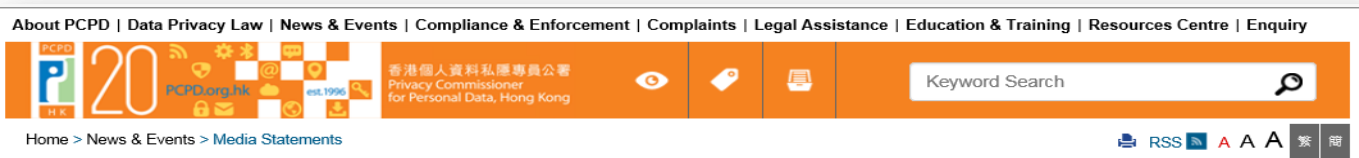
選舉事務處回應

- |  |             |
|--|-------------|
| 1 全港約378萬登記選民資料，為何會帶到只有1194名選委可投票的特首選舉的後備場地？過往特首選舉是否有同一安排？ | 沒有回應        |
| 2 失竊手提電腦本應由什麼級別的職員保管？                                      | 沒有回應        |
| 3 案發房間是否有保安或選舉事務處職員全天候把守？                                  | 沒有回應        |
| 4 哪些人有權進入案發房間？   | 沒有回應        |
| 5 為何選舉事務處前晚被傳媒揭發事件後才出稿交代？                                  | 沒有回應        |
| 6 失竊兩部手提電腦內，有否儲存選民在過去立法會及區議會選舉的投票紀錄？                       | 沒有任何投票紀錄    |
| 7 如何儲存及加密選民資料？   | 設有多重加密，極難破解 |

圖4之3

source: <https://goo.gl/IH0JFh>

# Recent Incidents



## News & Events

### Media Statements

Response to Media Enquiry or Report

What's On

Speeches, Presentations & Articles

Events & Programmes

Data Protection Officers' Club

Thematic Websites

Newspaper Column

## Media Statements

**Date: 11 April 2017**

### **Follow-up Actions by PCPD on the Reported Loss of Registration and Electoral Office's two Notebook Computers Containing Personal Data of Registered Voters**

The Office of Pri  
submission to th  
connection with  
notebook comp  
commencement  
Data ("Privacy C  
Personal Data")

#### 選舉事務處

香港灣仔港灣道 25 號  
海港中心 10 樓

#### REGISTRATION AND ELECTORAL OFFICE

10/F Harbour Centre  
25 Harbour Road  
Wan Chai  
Hong Kong

本函檔號 OUR REF : REO GC

圖文傳真 Fax : 2891 1180  
電話 Tel : 2891 1001  
網址 Web Site : www.reo.gov.hk

30 March 2017

Dear Sir/Madam,

#### Suspected Theft of Notebook Computers of the Registration and Electoral Office

On 27 March 2017, i.e. the day following the 2017 Chief Executive Election, the Registration and Electoral Office (REO) found that two notebook computers stored inside a locked room in the AsiaWorld-Expo in Chek Lap Kok, the fallback site of the election, were suspected to be stolen. One computer contains the names of Election Committee members without other personal particulars. As the relevant names have already been promulgated through public platforms, there is no risk of data leakage. The other computer contains the names, addresses and Hong Kong Identity Card numbers of about 3.78 million Geographical Constituencies electors in the 2016 Final Register. All the information has been encrypted in accordance with the relevant security requirements and is protected by multiple encryptions which are extremely difficult to break through.





# Recent Incidents



source: <https://goo.gl/CaZUXI>

## Gov't admits it lost 2 computers containing details of 46 people during 2016 census

5 April 2017 11:23 · Elson Tong · 2 min read



The Hong Kong government has admitted that it lost two tablet computers containing the details of 12 households – 46 people – during last summer's census.

The Census and Statistics Department reported the missing devices to the police last summer. But it only revealed the matter to local media on Tuesday night, days after the Registration and Electoral Office announced that it lost two laptops containing the personal information of all registered voters.



source: <https://goo.gl/IHaFk5>

# Examples of Portable Storage Devices (PSDs)



# The Six Data Protection Principles (DPPs)

## 6 保障資料原則 Data Protection Principles

PCPD.org.hk

1

### 收集目的及方式 Collection Purpose & Means



資料使用者須以合法和公平的方式，收集他人的個人資料，其目的應直接與其職能或活動有關。

須以切實可行的方法告知資料當事人收集其個人資料的目的，以及資料可能會被轉移給哪類人士。

收集的資料是有實際需要的，而不超乎速度。

Personal data must be collected in a lawful and fair way, for a purpose directly related to a function/activity of the data user.

All practicable steps shall be taken to notify the data subjects of the purpose of data collection, and the classes of persons to whom the data may be transferred.

Data collected should be necessary but not excessive.

2

### 準確性儲存及保留 Accuracy & Retention



資料使用者須確保持有的個人資料準確無誤，資料的保留時間不應超過達致原來目的的實際所需。

Personal data is accurate and is not kept for a period longer than is necessary to fulfill the purpose for which it is used.

3

### 使用 Use



個人資料只限用於收集時述明的目的或直接相關的目的，除非得到資料當事人自願和明確的同意。

Personal data is used for the purpose for which the data is collected or for a directly related purpose, unless voluntary and explicit consent is obtained from the data subject.

4

### 保安措施 Security



資料使用者須採取切實可行的步驟，保障個人資料不會未經授權或意外地被查閱、處理、刪除、喪失或使用。

A data user needs to take practical steps to safeguard personal data from unauthorised or accidental access, processing, erasure, loss or use.

5

### 透明度 Openness



資料使用者須公開其處理個人資料的政策和行事方式，交代其持有的個人資料類別和用途。

A data user must make known to the public its personal data policies and practices, types of personal data it holds and how the data is used.

6

### 查閱及更正 Data Access & Correction



資料當事人有權要求查閱其個人資料；若發現有關個人資料不準確，有權要求更正。

A data subject must be given access to his personal data and to make corrections where the data is inaccurate.



香港個人資料私隱專員公署  
Office of the Privacy Commissioner  
for Personal Data, Hong Kong

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Privacy Commissioner  
for Personal Data, Hong Kong

# Data Protection Principle 4

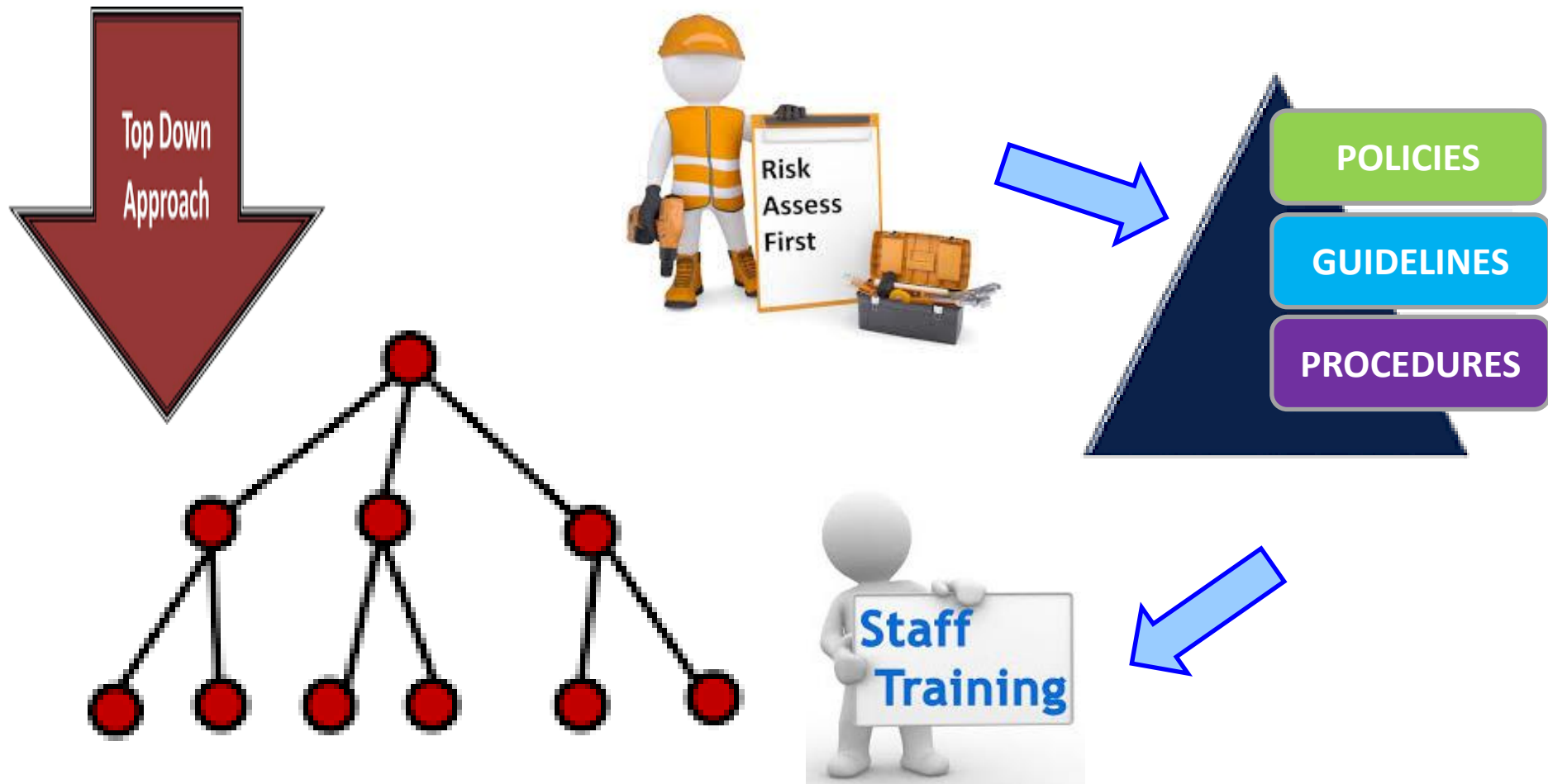
## Data Security Principle

- practicable steps to ensure no unauthorised or accidental access, processing, erasure, loss, use and transfer
- data users should take steps to manage the security risks associated with the use of PSDs





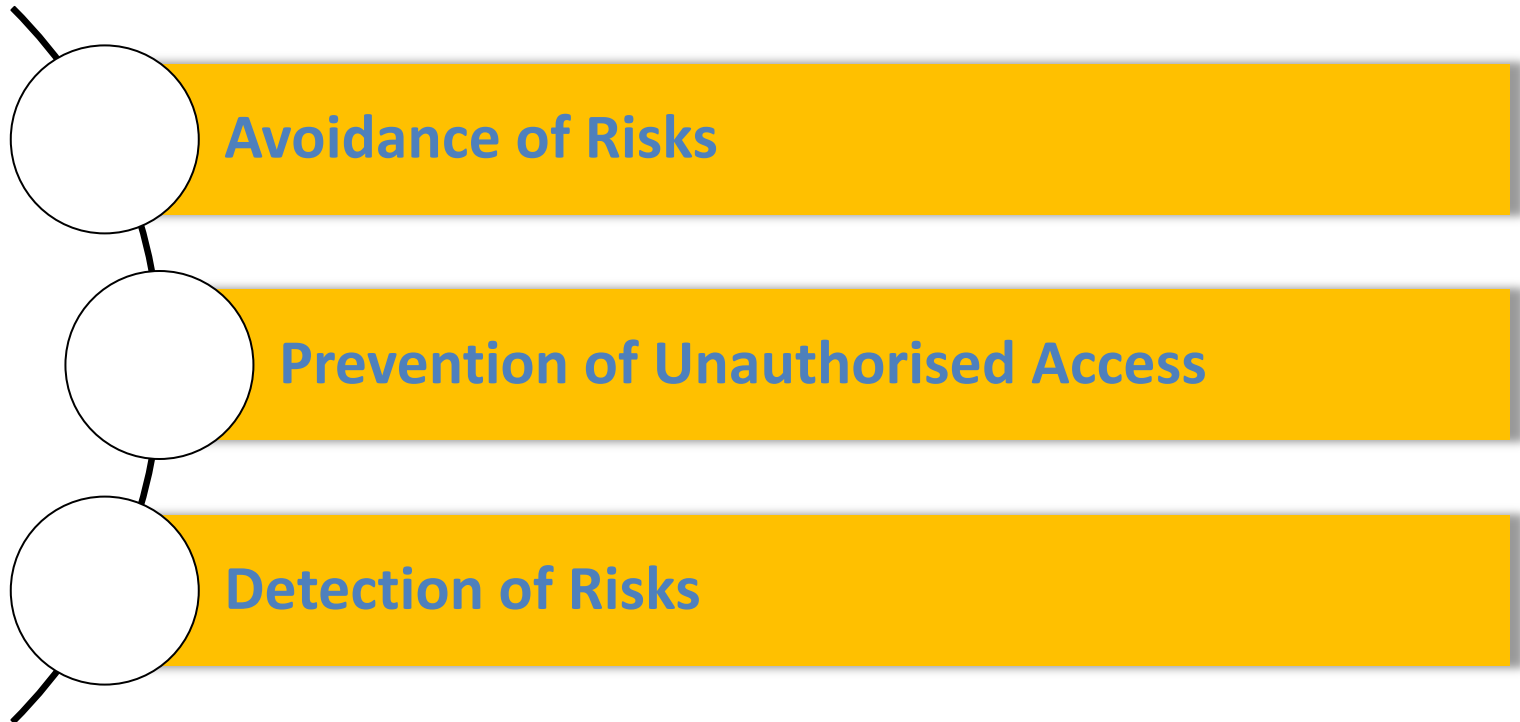
# Smart Use of PSDs





# Smart Use of PSDs

What should policy include?



# Smart Use of PSDs

## Avoidance of Risks



**ban the use of PSDs**



**use internal identifies instead of HKID Card Number**



**limit scope and detail of data**



**devise policy**



**erase data permanently before disposal**

# Smart Use of PSDs

## Prevention of Unauthorised Access



encryption



password management



erase data securely



access control

# Smart Use of PSDs

## Detection of Risks



inventory checks/spot checks



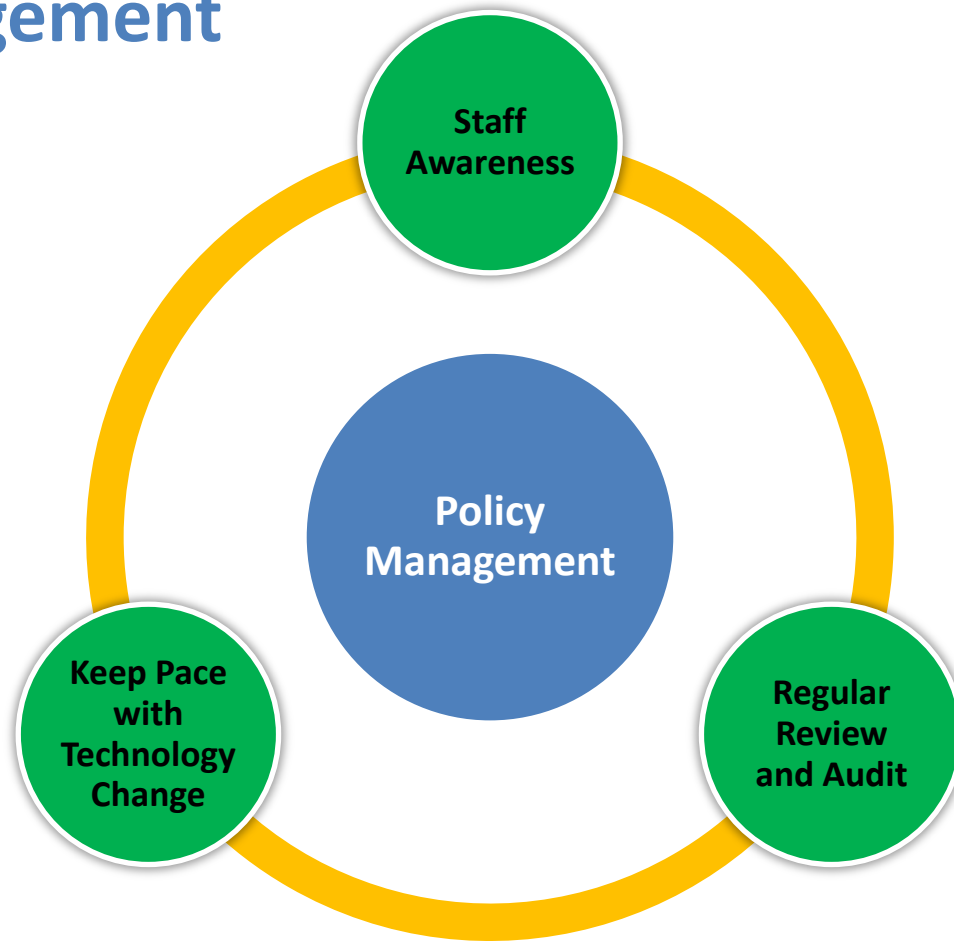
loss reporting





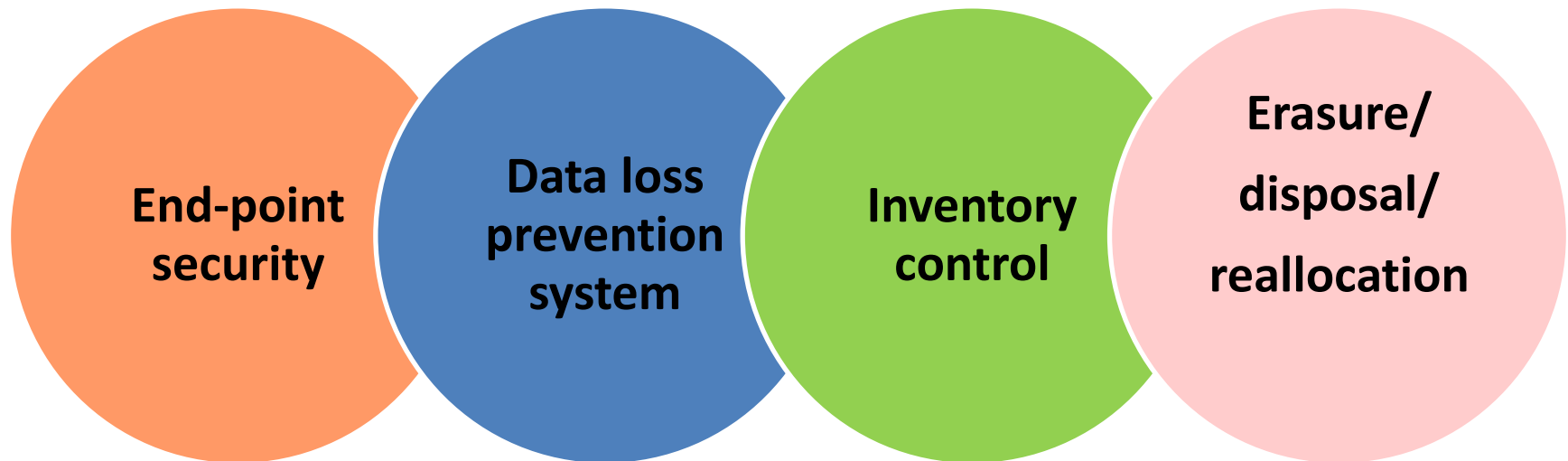
# Smart Use of PSDs

## Policy Management



# Smart Use of PSDs

## Technical Control



# Guidance on the Use of Portable Storage Devices



香港個人資料私隱專員公署  
Office of the Privacy Commissioner  
for Personal Data, Hong Kong

## Guidance Note

### Guidance on the Use of Portable Storage Devices

#### Introduction

Portable storage devices ("PSDs") such as USB flash memories or drives, notebook computers or backup tapes provide a convenient means to store and transfer personal data. However, privacy could easily be compromised if the use of these devices is not supported by adequate data protection policy and practice.

This Guidance Note seeks to assist organisational data users in addressing the personal data protection aspects of using PSDs.

#### What are PSDs?

In general, any device that is portable with storage or memory and on which users can store data is a PSD. PSDs are not limited to the obvious USB flash cards. They also include other types of device such as tablets/notebook computers, mobile phones, smartphones, personal digital assistants, portable hard drives, backup tapes and optical discs such as DVDs.

#### Legal Requirement on Data Security

Data Protection Principle ("DPP") 4(1) in Schedule 1 to the Personal Data (Privacy) Ordinance ("the Ordinance") requires a data user to take all reasonably practicable steps to

ensure that personal data held by it is protected against unauthorised or accidental access, processing, erasure, loss or use having regard to:-

- the kind of data and the harm that could result if any of those things should occur;
- the physical location where the data is stored;
- any security measures incorporated (whether by automated means or otherwise) into any equipment in which the data is stored;
- any measures taken for ensuring the integrity, prudence and competence of persons having access to the data; and
- any measures taken for ensuring the secure transmission of the data.

Data users should, therefore, take steps to manage the security risks associated with the use of PSDs in order to comply with DPP4(1).

DPP4(2) further requires that if a data user engages a data processor<sup>1</sup>, whether within or outside Hong Kong, to process personal data on the data user's behalf, the data user must adopt contractual or other means to prevent unauthorised or accidental access, processing, erasure, loss or use of the data transferred to the data processor for processing.

<sup>1</sup> A "data processor" is a person who (a) processes personal data on behalf of another person; and (b) does not process the data for any of the person's own purposes.



香港個人資料私隱專員公署  
Office of the Privacy Commissioner  
for Personal Data, Hong Kong

## 指引資料

### 使用便攜式儲存裝置指引

#### 導言

便攜式儲存裝置如USB記憶體、筆記型電腦或備份磁帶，為儲存及轉移個人資料提供了方便的途徑。不過，倘若沒有足夠的資料保障政策及措施規限此等裝置的使用，會增加私隱外洩的風險。

本指引旨在協助機構資料使用者在了解使用便攜式儲存裝置時，如何處理及保障個人資料。

#### 甚麼是便攜式儲存裝置？

一般而言，任何可攜帶，並備有儲存或記憶功能的裝置，即屬便攜式儲存裝置。便攜式儲存裝置不限於USB記憶體，亦包括其他裝置類別，如平板／筆記型電腦、流動／智能電話、電子手帳、便攜式硬碟機、備份磁帶及光碟（例如DVD）。

#### 資料保安的法律規定

《個人資料（私隱）條例》（下稱「條例」）附表1的保障資料第4(1)原則規定，資料使用者須採取所有合理地切實可行的步驟，以確保其持有的個人資料受保障而不受未獲准許或意外的查閱、處理、刪除、喪失或使用所影響，尤其須考慮：

- 該資料的種類及如該等事情發生可造成的損害；
- 儲存該資料的地點；
- 儲存該資料的設備所包含（不論是藉自動化方法或其他方法）的保安措施；

- 為確保能查閱該資料的人的良好操守、審慎態度及辦事能力而採取的措施；及

- 為確保在保安良好的情況下傳送該資料而採取的措施。

因此，資料使用者應採取步驟，管理有關使用便攜式儲存裝置的保安風險，以遵從保障資料第4(1)原則的規定。

保障資料第4(2)原則進一步規定，如資料使用者聘用（不論是在香港或香港以外聘用）資料處理者<sup>1</sup>，以代行處理個人資料，該資料使用者須採取合約規範方法或其他方法，以防止轉移予該資料處理者作處理的個人資料未獲准許或意外地被查閱、處理、刪除、喪失或使用。

#### 了解風險

容許使用便攜式儲存裝置，意味着大量的個人資料可以在不經意間快速及輕易地被複製到裝置內。若此等裝置遺失或盜竊，會產生資訊保安的風險，個人資料有可能會遭受未獲准許或意外的查閱或使用。在極端的例子中，即使便攜式儲存裝置已被重新格式化，過往被刪除或曾經儲存的個人資料亦可輕易地還原。

#### 由上而下的策略

機構要管理有關使用便攜式儲存裝置的風險，應由上而下採取貫徹機構的政策。為方便制定政策，應首先進行風險評估。風險評估最少應涉及下述範疇：

- 儲存個人資料的便攜式儲存裝置是甚麼類型？

<sup>1</sup> 資料處理者指符合以下兩項說明的人— (a) 代另一人處理個人資料；及 (b) 並非為該人本身目的而處理該資料。



## What is a data breach?

A data breach is generally taken to be a suspected breach of data security of personal data held by a data user, exposing the data to the risk of unauthorised or accidental access, processing, erasure, loss or use. It may amount to a contravention of Data Protection Principle 4 - security of personal data of the Personal Data (Privacy) Ordinance.



## Data Breach

何郭佩珍中學「一時失誤」 160學生資料發送全校



source: <https://goo.gl/EKtTxI>



港聞 ▸ Sanrio網站被入侵 私隱署調查

Sanrio網站被入侵 私隱署調查

要住得嘅過人,服務式住宅o岩晒你!

source: <https://goo.gl/eGb6zn>

【本報訊】日本卡通人物Hello Kitty官方粉絲網站Sanrio Town,早前被揭發遭黑客入侵,經營網站的香港公司Sanrio Digital證實約三百三十萬名網站會員或可能受事件影響,但目前未發現有用戶的個人資料被盜用或公開。個人資料私隱公署對網站的資料保安漏洞,正進行調查。

或涉兒童個人資料

個人資料私隱或涉及兒童關注,並決定網站營運者須士查閱或披露可能對個人造

她指,在完成知,指示如何知層刑事罪行罪後持續,可

Sanrio Dig進行,該公司支付資料,雖數SHA-1作安

要聞港聞 2017年02月09日 仁濟職員誤棄1,200病人資料

仁濟職員誤棄1,200病人資料

9,996



仁濟醫院

source: <https://goo.gl/di5uvn>



PCPD



香港個人資料私隱專員公署  
Privacy Commissioner  
for Personal Data, Hong Kong



# Data Breach Handling



## Collecting Information Immediately

Immediate gathering of essential information relating to the breach including:

- When and where did the breach take place?
- How was the breach detected and by whom?
- What was the cause of the breach?
- What kind and extent of personal data was involved?
- How many data subjects were affected?

# Data Breach Handling



## Contacting the Interested Parties & Adopting Containment Measures

Interested parties may include:

- The law enforcement agencies
- The relevant regulators (e.g. Privacy Commissioner for Personal Data, Hong Kong (the “Commissioner”))
- The Internet companies
- IT experts

Containment measures may include:

- Stopping the system if the data breach is caused by a system failure
- Changing the users’ passwords and system configurations to control access and use
- Considering whether technical assistance is needed to remedy the system loopholes and / or stop the hacking
- Ceasing or changing the access rights of individuals suspected to have committed or contributed to the data breach
- Notifying the relevant law enforcement agencies if criminal activities are or likely to be committed
- Keeping the evidence of the data breach to facilitate investigation
- Directing the data processor to take immediate remedial measures and requesting it to notify the data user of the progress, if applicable

# Data Breach Handling



## Assessing the Harm

Assessing the potential harm caused by a data breach, for examples:

- Threat to personal safety
- Identity theft
- Financial loss
- Humiliation or loss of dignity, damage to reputation or relationship
- Loss of business and employment opportunities

# Data Breach Handling



## Considering the Giving of Notification

When real risk of harm is reasonably foreseeable in a data breach, the data user should consider:

- Notifying the affected data subjects and the relevant parties
- The consequences for failing to give notification



# Data Breach Notification



## What is a data breach notification?

A data breach notification is a formal notification given by the data user to the data subjects affected and the relevant parties and regulators in a data breach.

While it is not a statutory requirement on data users to inform the Office of the Privacy Commissioner for Personal Data, Hong Kong about a data breach incident concerning the personal data held by them, data users are nevertheless advised to do so as a recommended practice for proper handling of such incident.

If a data user decides to report a data breach to the Commissioner, the data user may complete a Data Breach Notification Form and submit the completed form to us online, by fax, in person or by post.



# Lesson Learnt to Prevent Recurrence



improvement of security



control of access rights



revision or promulgation of privacy policy and practice



effective detection of data breach




Strengthening of monitoring and supervision



Provision of on-the-job training

**LESSON  
LEARNED**

# Guidance on Data Breach Handling and the Giving of Breach Notifications



香港個人資料私隱專員公署  
Office of the Privacy Commissioner  
for Personal Data, Hong Kong  
PCPD.org.hk

保障·尊重個人資料  
Protect, Respect Personal Data

## Guidance on Data Breach Handling and the Giving of Breach Notifications

### Introduction

This guidance note aims to assist data users in handling data breaches, and to mitigate the loss and damage caused to the data subjects concerned, particularly when sensitive personal data is involved.

### What is a data breach?

A data breach is generally taken to be a suspected breach of data security of personal data held by a data user, exposing the data to the risk of unauthorised or accidental access, processing, erasure, loss or use.

The following are some examples of data breaches:

- The loss of personal data kept in storage, e.g. laptop computers, USB flash drives, portable hard disks, backup tapes, paper files
- The improper handling of personal data, such as improper disposal, sending to the wrong party or unauthorised access by an employee
- A data user's database containing personal data being hacked or accessed by outsiders without authorisation
- The disclosure of personal data to a third party who obtained it by deception
- The leakage of data caused by the installation of file-sharing software in the computer

A data breach may amount to a contravention of **Data Protection Principle 4(1) and (2)** ("DPP4(1) and (2)") in Schedule 1 of the Personal Data (Privacy) Ordinance ("the Ordinance"). DPP4(1) provides that a data user shall take all reasonably practicable steps to ensure that the personal data held by it is protected against unauthorised or accidental access, processing, erasure, loss or use, having particular regard to the kind of the data and the harm that could result if any of those things should occur. DPP4(2) provides that if a data user engages a data processor<sup>1</sup>, whether within or outside Hong Kong, to process personal data on the data user's behalf, the data user must adopt contractual or other means to prevent unauthorised or accidental access, processing, erasure, loss or use of the data transferred to the data processor for processing.

### How should a data breach be handled?

A data user shall take remedial actions to lessen the harm or damage that may be caused to the data subjects in a data breach. The following action plan is recommended for a data user's consideration:

**Step 1: Immediate gathering of essential information relating to the breach**

A data user shall promptly gather the following essential information:

<sup>1</sup> "Data processor" means a person who processes personal data on behalf of another person; and does not process the data for any of the person's own purposes.

Guidance on Data Breach Handling and the Giving of Breach Notifications 1 October 2015



香港個人資料私隱專員公署  
Office of the Privacy Commissioner  
for Personal Data, Hong Kong  
PCPD.org.hk

保障·尊重個人資料  
Protect, Respect Personal Data

## 指引資料

### 資料外洩事故的處理及通報指引

### 導言

本指引旨在協助資料使用者處理資料外洩事故及減低對有關資料當事人所造成的損失及損害，尤其當事故涉及敏感個人資料。

### 甚麼是資料外洩事故？

資料外洩事故一般指資料使用者持有的個人資料懷疑外洩，令此資料有被未獲准許的或意外的查閱、處理、刪除、遺失或使用的風險。

原則，保障資料第4(1)原則規定資料使用者須採取所有切實可行的步驟，確保由資料使用者持有的個人資料受保障而不會被未獲准許的或意外的查閱、處理、刪除、遺失或其所影響，尤其須考慮該資料的種類及加該等事情發生可能造成的損害。保障資料第4(2)原則規定，如資料使用者聘用（不論是在香港或香港以外聘用）資料處理者<sup>1</sup>，以代該資料使用者處理個人資料，該資料使用者須採取合約規範方法或其他方法，以防止轉移予該資料處理者作處理的個人資料未獲准許或意外地被查閱、處理、刪除、遺失或使用。

### 如何處理資料外洩事故？

資料使用者應採取補救措施以減低資料外洩事故對資料當事人可能造成的傷害或損害。現建議下述行動計劃供資料使用者考慮：

**步驟1：立即收集有關資料外洩事故的重要資料**  
資料使用者須立即收集下述資料：

1. 事故於何時發生？
2. 事故在何處發生？
3. 事故如何被發現及由誰人發現？
4. 事故的肇因是甚麼？
5. 涉及甚麼類型的個人資料及範圍有多大？
6. 受影響的資料當事人有多少？

資料外洩事故可構成違反《個人資料（私隱）條例》（下稱「條例」）附表1的保障資料第4(1)及(2)

<sup>1</sup> 「資料處理者」指代另一人處理個人資料及並不為該人本身目的而處理該資料的人。

資料外洩事故的處理及通報指引 1 2015年10月

# Data Breach Notification Form

To: Privacy Commissioner for Personal Data, Hong Kong



香港個人資料私隱專員公署  
Office of the Privacy Commissioner  
for Personal Data, Hong Kong

## Data Breach Notification Form

### Notice

Notification of a data breach to the Privacy Commissioner for Personal Data, Hong Kong (the "Commissioner") by the data user (see Note 1) is not a legal requirement. In deciding whether or not to give this notification to the Commissioner, you should consider the "Guidance on Data Breach Handling and the Giving of Breach Notifications" issued by the Commissioner. In most cases, it is advisable to give notifications to the data subject(s) (see Note 2) affected by the breach.

### PARTICULARS OF THE PERSON GIVING THIS NOTIFICATION (i.e. the data user)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone number: \_\_\_\_\_ Fax number: \_\_\_\_\_  
Email address: \_\_\_\_\_

Where the person giving this notification is an organization, please provide the following information:

Contact person: \_\_\_\_\_  
Name (\*Mr./Ms./Miss): \_\_\_\_\_  
Relationship with the Reporting Organization (e.g. job title): \_\_\_\_\_  
Telephone number: \_\_\_\_\_ Fax number: \_\_\_\_\_  
Email address: \_\_\_\_\_  
(\*Please delete as appropriate)

### DETAILS ABOUT THE DATA BREACH (see Note 3):

### ACTIONS TAKEN / WILL BE TAKEN TO CONTAIN THE BREACH (see Note 4)

Please set out details of any actions / measures taken or will be taken to mitigate and minimize the breach

### RISK OF HARM (see Note 5)

Is there a real risk of harm to any individual? (Please tick one of the following boxes) ☐ Yes ☐ No

Please explain below why there is / there is no real risk of such harm

### ASSISTANCE AND ADVICE OFFERED TO INDIVIDUALS

Describe (i) what has been done to inform the individual(s) affected by the breach; and (ii) if their safety, well-being or property is at risk as a result of the breach, what has been done or can be done to assist them in avoiding / mitigating that risk or its consequences:

### NOTIFICATION TO OTHER BODIES / REGULATORS / LAW ENFORCEMENT AGENCIES

Please provide details if such notification has been given

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

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香港個人資料私隱專員公署  
Privacy Commissioner  
for Personal Data, Hong Kong



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# Privacy Management Programme

From Compliance  
to Accountability



香港個人資料私隱專員公署  
Office of the Privacy Commissioner  
for Personal Data, Hong Kong

## Privacy Management Programme A Best Practice Guide

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# PMP – At a Glance

## Part A: Baseline Fundamentals

### 1. Organisational Commitment

- |                        |                                    |              |
|------------------------|------------------------------------|--------------|
| a) Buy-in from the Top | b) Data Protection Officer/ Office | c) Reporting |
|------------------------|------------------------------------|--------------|

### 2. Programme Controls

- |                            |                    |                              |
|----------------------------|--------------------|------------------------------|
| a) Personal data inventory | b) Policies        | c) Risk Assessment Tools     |
| d) Training & Education    | e) Breach Handling | f) Data Processor Management |
| g) Communication           |                    |                              |

## Part B: Ongoing Assessment and Revision

### 1. Oversight & Review Plan

### 2. Assess & Revise Programme Controls where necessary



спасибо  
danke 謝謝  
ngiyabonga  
teşekkür ederim  
tapadh leat  
gracias  
dank je  
thank you  
mochchakkeram  
go raibh maith agat  
arigatō  
takk  
dakujem  
merci  
ευχαριστώ  
kop khun krap  
sukriya  
sagolun  
hvala  
maururu  
dziękuje  
bedankt  
obrigado  
terima kasih  
감사합니다

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