

# Legal Studies in Asia PKI Forum

June 21, 2005

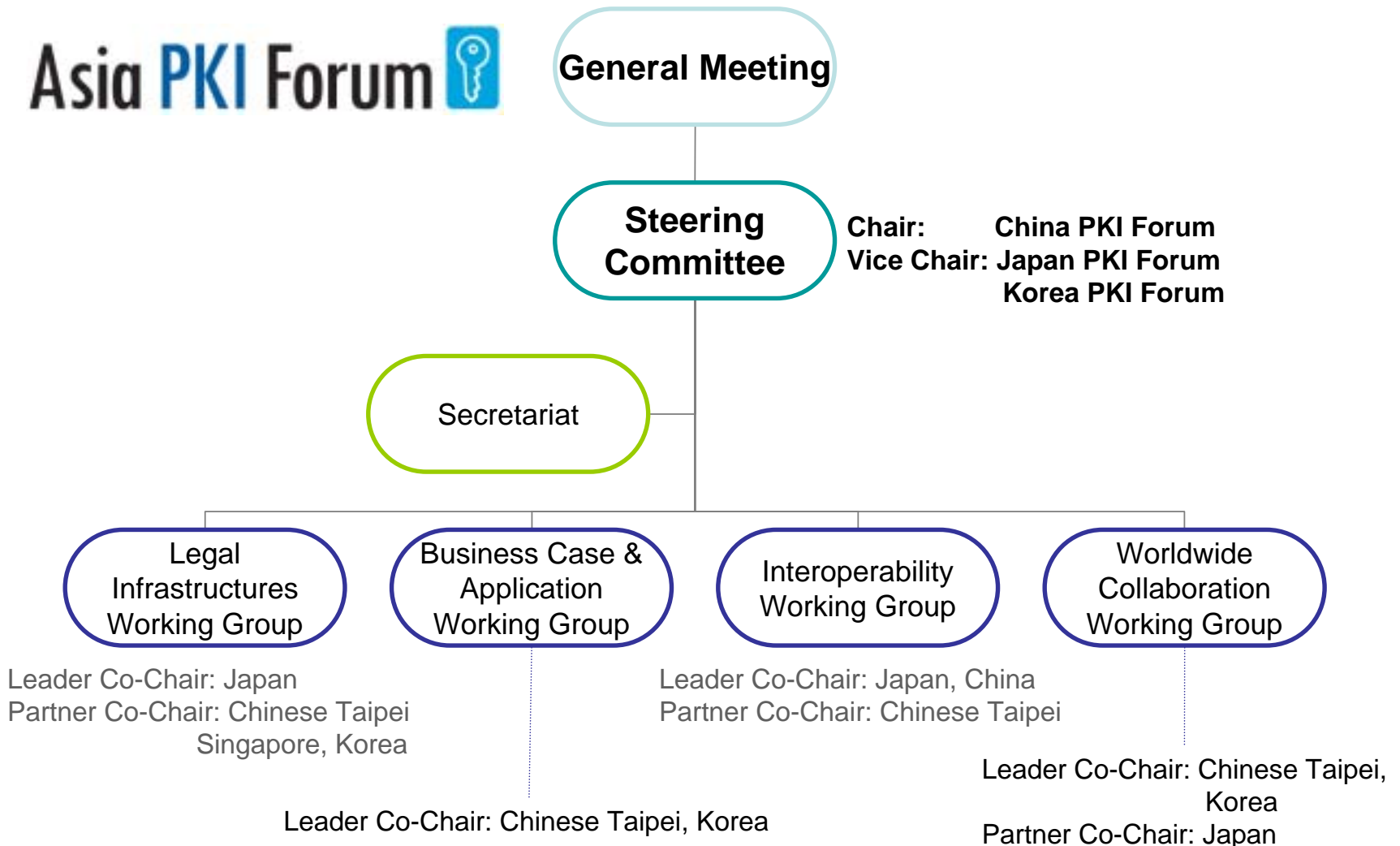
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# Who are we?



# Working Groups

- Worldwide Collaboration Working Group
  - to facilitate and realize the mutually beneficial information sharing, constructive collaboration and strategic alliance between the Forum and other internationally recognized organizations in the fields of PKI as well as ICT security.
  - to serve as the leading edge for the other WGs in the Forum to make regional-to-regional cooperation happen
- Legal Infrastructures Working Group
  - to issues a legal report yearly through the members' discussion and research concerning cross-border e-commerce.



# Scenario

## Online Trading



Buying Tunisian pottery using a PKI certificate for secure online transaction



- Do electronic contracts have the same legal recognition as paper contracts in Tunisia?
- Can the CA in Tunisia issue a certificate to an individual in Taiwan?
- My company have an agreement with a Tunisia Corporation to conduct exchange of contracts and communications using PKI. We both have agreed to use a CA in Taiwan. Is the certificate issued by Taiwanese CA valid in Tunisia although the CA has not obtained permission or accreditation by Tunisian government?
- .....

# what are we doing in PKI legislative issues?

Areas of Study in Asia PKI Forum	Relevant laws
<p><b><u>Legal Report 2003</u></b> <b>Legal issues on cross-border on eCommerce transactions</b></p> <ul style="list-style-type: none"><li>• Electronic Signature Laws</li><li>• Electronic Transaction Laws</li></ul>	<ul style="list-style-type: none"><li>• Civil Laws (Contracts)</li></ul>
<p><b><u>Legal Report 2004</u></b> <b>Dispute Resolutions for Domestic and Cross-border eCommerce</b></p>	<ul style="list-style-type: none"><li>• Civil Law (Contracts and Torts)</li><li>• Private International Laws</li></ul>
<p><b><u>Legal Report 2005</u></b> <b>Comparative study on CA Liability Privacy Protection</b></p>	<ul style="list-style-type: none"><li>• Civil Law (Contracts and Torts)</li></ul>
<p><b><u>Legal Report 2006</u></b> <b>CA's Risk Management – Legal issues related with new security technologies</b></p>	<ul style="list-style-type: none"><li>• Constitution</li><li>• Civil Law (Contracts and Torts)</li><li>• Intellectual Property Law</li><li>• Criminal Law</li></ul>

# why are we doing this?

- To enable cross-border electronic transactions to take place supported by a robust legal framework.
  - Identify key legal issues facing businesses that wish to engage in cross-border e-commerce transactions
  - Highlight disparities, gaps, advantages and restrictions resulting from different legal infrastructure of the 8 economies.
  - Identify legal issues that facilitate or constrain e-commerce transactions between entities from different economies.
  - Propose solutions to legal issues



# What do we discover?



## 1. Legal issues on cross-border on eCommerce transactions

- objectives
  - a business perspective of how an entity operating in one economy is able to transact electronically across borders;
  - an understanding of what legal issues should be addressed to facilitate such transactions, and to cover their concerns of how legally binding the electronic transactions are and what legal recourse is available in the event of a commercial dispute;
  - Recommendations on where the legal infrastructures need to be further aligned to facilitate cross-border e-commerce.
- coverage
  - Australia, China, Hong Kong, Japan, Malaysia, Singapore, South Korea and Chinese Taipei

# Legal Report 2003 – ii

## Legal issues on cross-border on eCommerce transactions

Brief overview of operating principles of electronic contracting

Examination of the disparities, gaps, restrictions relating to the different legal infrastructures

Detailed examination of selected issues

Milestones

Other useful resources & appendix

# Legal Report 2003 – iii

- Contexts

- ① a summary of operating principles of electronic contracting in eight economies

<b>Australia, Hong Kong, Singapore</b>	Where an electronic record is used in the formation of a contract, that contract should not be denied validity or enforceability.
<b>Japan</b>	Electronic contracts will be treated in the same way as other contracts. Contracts concerning real property, explanation documents and living wills are required to be in writing.
<b>Korea</b>	Effect of an electronic document cannot be disregarded merely because it is electronically created. Admissible as general evidence in Korean courts
<b>Taiwan</b>	Recognizes that a business transaction can be effected by electronic record with consent of the other party.

# Legal Report 2003 – iv

## ② Examination of the disparities, gaps, restrictions relating to the different legal infrastructures in 8 economies

- recognition of contract formation by conduct
- recognition of electronic contracts
- recognition of e-signatures
- interoperability and cross-recognition
- liability of service providers
- governing law
- contract formation issues
- evidentiary requirements
- consumer protection issues
- implied terms
- distance selling rules
- advertising rules
- data protection



# Legal Report 2003 – v

- **Snapshot:**

Do electronic contracts have the same legal recognition as their paper-based counterparts in each country?

<b>Australia, Hong Kong, Singapore</b>	Where an electronic record is used in the formation of a contract, that contract should not be denied validity or enforceability.
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# Legal Report 2003 – vi

- ③ Case studies that illustrate how relevant laws are applied
  - Online purchase of a computer system (B2C)
  - Assignment or exclusive license of copyright from online content
  - Pan Asia Alliance
- ④ Other useful resources
  - Matrix for comparison of digital signature laws ( 8 economies)
  - Matrix for comparison of technical and security requirements on Certificate Authorities



## 2. Dispute Resolutions for Domestic and Cross-border eCommerce

- Background
  - No convention or treaty on applicable law and/or international jurisdiction that can be applied to all the member countries/areas of Asia PKI Forum.
- Objectives
  - provides an overview of the judicial system and alternative dispute resolutions as applied to e-commerce transactions by using hypothetical cases to which member countries/areas shall provide legal solutions in accordance with present domestic laws and regulations of each country/area
- Coverage
  - Hong Kong, Japan, Singapore, South Korea and Chinese Taipei

# Legal Report 2004 – ii

## Dispute Resolutions for Domestic and Cross-border eCommerce

General domestic Civil Procedure

ADR for eCommerce Dispute

Private International Law applied to cross-border eCommerce Disputes

Applicable Law or Governing Law

International Jurisdiction

Arbitration and Private International Law

# Legal Report 2004 – iii

- Contexts
  - a list of Q&A
    - A Overview of general domestic civil procedure
    - the judicial system website in each country/area
    - ADR for eCommerce disputes
  - a list of scenarios and actions in each country/area
    - Suppose there is a consumer in country X and a contract for a sale of goods was made between the consumer in X and a company in country Y via Internet. A dispute has arisen and the consumer in X would like to file a suit against the company in Y
    - The company in Y delivered goods to the specific place as agreed in the third country/area Z. But the goods were defective. The company in X (buyer) would like to file a suit against the company in Y (seller).
    - ...
  - a sample scenario is available in the appendix

- **Scenario Snapshot:**

*Suppose there is a financial company in your country X. The financial company in X put information for investment on their website indicating that, a manufacturing company in X has invented a revolutionary product and obtained the patent. An investor in another country Y relied on this and invested enormous amount of capital. However the information was fictitious and fraudulent. The investor in Y would like to file a tort suit against the financial company in X. Which law shall be applied?*

- **Chinese Taipei's applicable laws to the scenario**

*An obligation arising from a wrongful act shall be dealt with at the place of breach or *lex loci delicti*, however, that this shall not apply where such act is not considered to be wrongful under the laws of Taiwan (**Art. 9, Private International Law**).*

*In application, the applicable governing law in situations such as the above factual scenario shall be Taiwan if the tort (fraud) is deemed to have occurred in Taiwan, and vice versa. However, the question as to whether the tort (which took place over the Internet) did in fact occur in Taiwan is a moot point as there is yet to be an authoritative decision or academic opinion in Taiwan which conclusively resolves this uncertainty.*

- **Japan's applicable laws to the scenario**

*Horei (Japanese Application Law Act) Sec. 11.1 provides “The formation and effect of obligations due to agency of necessity, unjust enrichment or tort shall be governed by the law of the place where the fact causing the obligation has occurred.” Then the issue is what is “the fact causing the obligation”. Although “the fact” may include both of conduct and damage, “the fact causing the obligation” is in general interpreted as suffering damage. Therefore the governing law of tort in Japan shall be the law of place where the plaintiff has suffered damage. Y law shall apply to this case.*

*Horei Sec. 11.2 provides, however, “The provision of the preceding paragraph shall not apply to unlawful act in case the fact occurring in a foreign country is not unlawful according to Japanese law”. Therefore, although the person has suffered damage in Y, but if the fact is not unlawful in accordance with X law (Japanese law), Y law shall not apply.*

*In addition, Horei Sec. 11.3 provides “ Even when the fact occurring in a foreign country is unlawful in accordance with Japanese law, the injured person may claim the only remedies recognized by Japanese law.”*

## 3. Comparative study on CA Liability

- Background
  - With the rising usage of PKI for cross-border e-commerce transactions and government purposes in Asia, disputes involving Certification Authority's responsibilities and liability are likely to arise.
- coverage
  - Japan, Korea, Chinese Taipei, Singapore, Thailand

# Legal Report 2005 – ii

- Contexts

- ① Comparison of Certification Practice Statements (CPS) of the country/area

- using Article 3647 Paragraph 4.9.1-16 of “Request for Comments” provided by IETF (The Internet Engineering Task Force) as the basis
    - CPS that compared in the report:
      - Japan: Japan Certification Services, Inc. (2001)
      - Korea 1: Korea Information Security Agency(Korea Certification Authority Central : Root CA of Korea) (CPS version 1.2, 2004)
      - Korea 2: Korea Information Certificate Authority(CPS version 4.1, 2004)
      - Singapore: Netrust Pte. Ltd (2001)
      - Chinese Taipei: Taiwan-CA. COM Inc.(2002)
      - Hong Kong China: Hong Kong Post (2002)
      - Thailand: ACERTs Ltd. (2001)

# Legal Report 2005 – iii

## ② Hypothetical Questions to answer CA Liabilities in the legal standpoint of each country /area

### **Snapshots:**

- Can the CA in your country/area X issue a certificate to a corporation in foreign country/area Y? are there any regulations?

- **Japan:**

Yes. The CA in Japan can issue an electronic certificate to a foreign corporation in foreign country/area.

- **Korea**

No. The CA in Korea can't issue an electronic certificate to a foreign corporation in foreign country/area yet. But, if a foreigner or local branch of foreign company is in Korea, he/she can be issued an electronic certificate in accordance with the article 13-2 of the Enforcement Ordinance of the Electronic Signature Act of Korea. The provisions regarding the issuance of certificates to foreign corporations located overseas are scheduled to be newly established when the said Enforcement Ordinance is revised.

# Legal Report 2005 – iv

## ③ Privacy Laws or regulations concerning “Privacy Protection” in each member country/area

### **Snapshots:**

- **China**

There is no specific law or regulation concerning privacy protection. However, there are 24 laws and regulations, including civil procedure code and general principle of civil law, mentioned the privacy protection. In addition, more than 30 judicial interpretations and over 210 department regulations all have the relevant contents about privacy protection.

- **Japan**

There have been court cases concerning privacy since 1964 in Japan. Invasion of privacy has been regarded as tort set forth in Japanese Civil Code. Japan has enacted Personal Information Protection Act since 2003.

## case study

# Legal aspect of PKI application in Taiwan

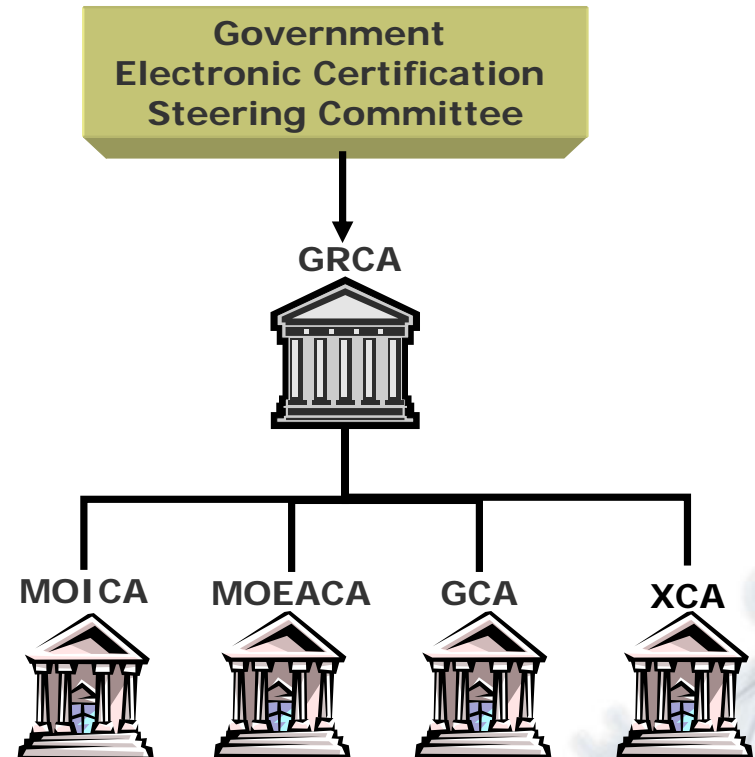
# PKI Framework in Chinese Taipei



Source: PKI Promotion and Management Office, Ministry of Economic Affairs, Taiwan

# The Government PKI

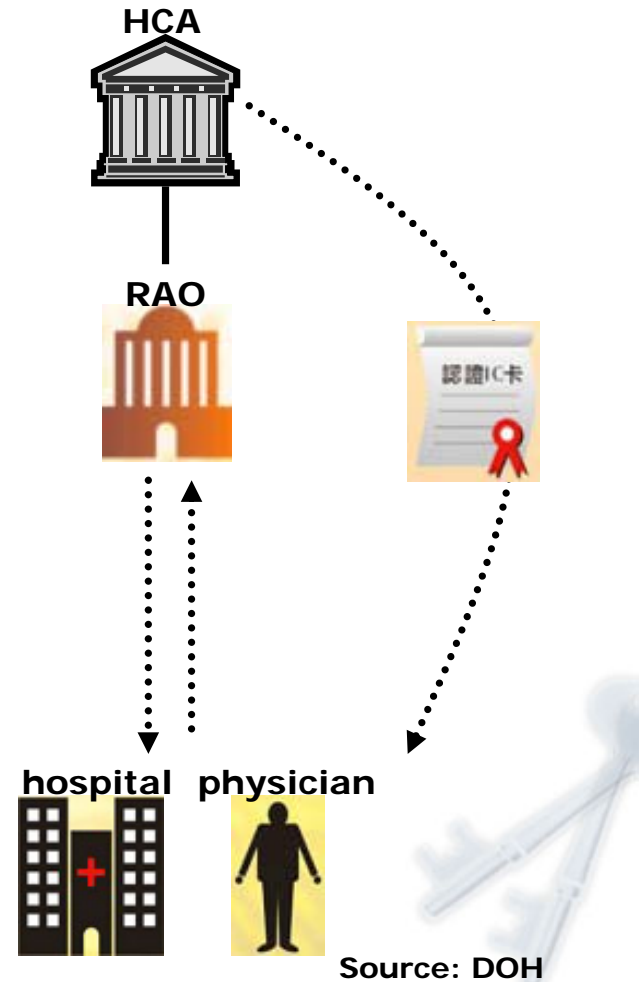
- **Policy determined (October 1997)**
- **GCA (February 1998)**  
Issue certificates to government agencies
- **GRCA (October, 2002)**  
Issuing certificates to subordinate government Cas
- **MOICA (April 28, 2003)**  
Issuing Natural Person Certificates to all citizens aged over 18
- **MOEACA (August 2003)**  
Issuing certificates to businesses
- **XCA (February 2004)**  
Issuing certificates to legal people and organizations outside the categories of nature and commercial businesses



Source: RDEC

# Healthcare PKI

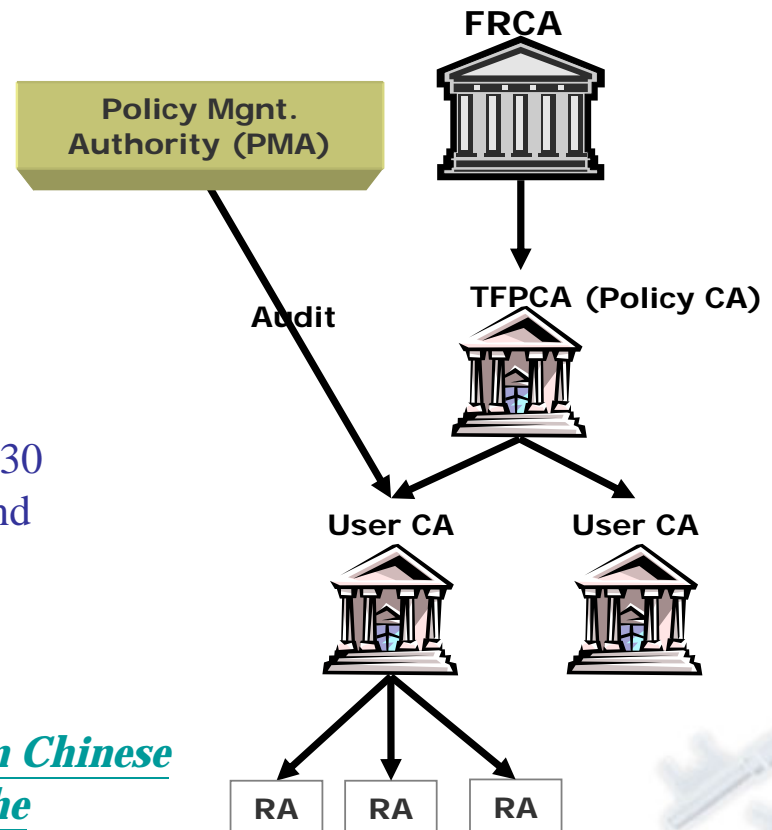
- Initiated by Department of Health, Executive Yuan since August 2002 as part of the national “Online Health Services Promotion Plan”
- to establish a trusted PKI in the domain offering electronic signature, and data encryption functions for online healthcare services
- Applications: online identity for
  - Accessing data stored in National Health Insurance IC cards
  - Patient record referral
  - Insurance claiming
  - Statutory infectious disease reporting
  - Electronic credentials



# Financial PKI

- Initiated by Bank Association as part of the Internet Banking program  
message format + PKI framework  
FXML + FPKI
- Financial Root CA (FRCA) was full launched since April, 2002
- Enforcement:
  - All members of Bank Association (30 banks) are required to join FPKI and issue FXML certificates before end 2004

*Banks are the heaviest PKI users in Chinese Taipei with a solid support from the industrial union*



Source: Bank Association

# legal concerns in PKI applications

- From certificate users' perspective:
  - Current laws do not necessarily endorse CA liability in case that transaction parties use the certificates issued by public CA for commercial purpose.
  - How to assure privacy / personal data protection?
  - In case of dispute, what would be the evidentiary implication of electronic signature ?
- From CAs' perspective:
  - In absence of compatible CPS, compatible liability exposure, there does not appear to exist the condition for interoperability among CAs?
  - Is it practically feasible to require foreign CAs to obtain recognition by Chinese Taipei before its certificate can be used and relied in Chinese Taipei?
  - How to assure the compliance?

# Issue 1: commercial use of public CA issued certificates

- **Concern**
  - Current laws do not necessarily endorse CA liability in case that transaction parties use the certificates issued by public CA for commercial purpose
- **Issue**
  - In current practice, use of certificate issued by public CA is limited to e-government applications only.
- **Finding**
  - The risk of use of certificates issued by public CA in commercial transactions lies with the users.

# Issue 2: privacy and personal data protection

- **Concern**

- How to better ensure the protection of personal data?

- **Issues**

- The operations of the *Personal Data Protection Act* are presently not applicable to CAs.
- CAs are merely contractually obliged to keep information of subscribers (users) in confidence: *CPS of CA*.
- Recently, there are instances of unexpected disclosure of personal data.

- **Findings**

- *In the proposed amendment of Personal Data Protection Act, CAs' confidentiality obligation shall be covered*
- Before amendment of said law, government shall consider to promulgate “Privacy Guideline” for CAs

# Issue 3: evidentiary aspect of electronic signature

- **Concern**
  - Business entities use its digital signature and certificate (validated by CAs) to enter into B2B or B2C e-transactions. In case of dispute, what would be the evidentiary implication of electronic signature ?
- **Issue**
  - Electronic signature needs to be prima facie authentic, as physical signature, in terms of Civil procedure law
- **Finding**
  - Current law is vague on this issue.

# Issue 4: condition for interoperability among CAs

- **Concern**

- In absence of compatible CPS, compatible liability exposure, there does not appear to exist the condition for interoperability among CAs?

- **Issues**

- CPS among CAs are not the same
- CA Liability exposure cross-border is not the same.

- **Findings**

- Policy mapping shall be done.
- “Best Practice for CAs” can enhance the interoperability.
- “Certificate Service Contract Guideline” provides another approach to enhance the interoperability

# Issue 5: compliance matters on foreign CAs issuing certificates used in Chinese Taipei

- **Concern**
  - Is it practically feasible to require foreign CAs to obtain recognition by Chinese Taipei before its certificate can be used and relied in Chinese Taipei? How to assure the compliance?
- **Issues**
  - Under current laws, foreign CAs shall obtain recognition by Chinese Taipei before it can issue certificates for use in Chinese Taipei.
  - In cyber space, territory boundary is vague and hard to draw.
- **Finding**
  - practical solution is expected from respective regulators.

**Thank you for your attention!**

Further questions, please contact  
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# Join Asia PKI Forum

Asia PKI Forum quarterly meetings and PKI International Conference will be held in September 2005.

Join us and experience the lovely autumn days in Taipei!



one more note...

# Taipei PKI Training Center, coming in 2006

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