Asia PKI Consortium
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Hong Kong Government Certificate Authority

HKPKI Forum
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Hong Kong Government Certification Authority has been certified compliance to the international Webtrust audit standard for 12 consecutive years and is the only recognized certification authority in Hong Kong that meets that international audit standards.

At present, mainstream browsers, including Microsoft IE, Google Chrome, Apple Safari, Mozilla Firefox and Oracle Opera built-in trust anchor of Hongkong Post Certification Authority Root certificate.
Hong Kong Government CA - (www.eCert.gov.hk)

<table>
<thead>
<tr>
<th>By Virtue</th>
<th>Establishment under ETO (Cap. 553) as public CA</th>
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<tbody>
<tr>
<td>Perpetual</td>
<td>No expiry of license period</td>
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<tr>
<td>Auditable</td>
<td>Perform vulnerability scanning quarterly</td>
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<td></td>
<td>Security penetration test annually</td>
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<td>Security Risk Assessment semi-annually</td>
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International Standards of CAs

- **WebTrust certified**
  - WebTrust for Certification Authorities
  - WebTrust for SSL Baseline with Network Security
  - WebTrust for Extended Validation - SSL

- **Trust by browsers**
  - Issue SSL e-Cert(Server) which is trusted by major browsers

- **Faster Response**
  - Support Online Certificate Status Protocol (OCSP) for real-time status update

- **Transparent**
  - Support Certificate Transparency technology
E-Cert for Government B/Ds, NGOs, Businesses and Public

- Inland Revenue Department
  AEOI e-Cert

- Hospital Authority
  Doctor’s e-Cert

- Licensed Banks
  Personal/Corporate Bank-Cert

- General Purpose
  Personal/Organisational e-Cert
Industry-wide e-Cheque Project

- As an alternative payment method
- To promote e-commerce
E-Cert and Bank-Cert

E-Cert

General Purpose Certificate

KYC by CA, Cert kept by users, Cert stored on PKCS#11 media

Bank-Cert

Special Purpose Certificate

KYC by banks, Cert kept by banks, Cert stored in HSM
Latest developments
2.3 Flow

This use case is simulating a user using his/her Mobile phone and Merchant App to purchase goods or services and would like to use FPS payment to complete the transaction.
Data flow e-Cert (Server) status (VALID)

1. Invoke payment app
2. Handle payment request
3. Credit transfer request
4. Settlement confirmation
5. App launch back
6. Payment confirmation

Check Merchant’s e-Cert (Server) certificate validity
Customer
Merchant
Merchant’s Bank
Money-Transfer System
Customer’s Bank

VALID

Customer Check Merchant’s e-Cert (Server) certificate validity

Payment confirmation

App launch back

Credit transfer request

Settlement confirmation
Data flow e-Cert (Server) status (INVALID/Revoked)

1. Invoke payment app
2. Handle payment request

Customer

Merchant

Check Merchant’s e-Cert (Server) certificate validity

INVALID/Revoked
Hong Kong eID development

- In May 2018, Hong Kong received approved commitment of HKD112 million to develop the eID system. The Office of the Government Chief Information Officer (OGCIO) initiated an open tendering exercise for development and maintenance of the eID system in August 2018 and awarded the service contracts in end-February 2019. Work related to design and development has started, the system is expected to come into operation in mid-2020.

- The eID will be available for all Hong Kong residents free of charge starting from mid-2020.

- Two versions of eID is proposed:
  - Basic version - Non-face-to-face online registration for authentication only
  - Full version - additional in-person identity verification for authentication and digital signing with digital certificate

- The OGCIO is actively promoting the adoption of eID by government bureaux/departments in their existing or planned e-government services. It is expected there will be 26 e-government services adopted upon its launch in mid-2020. Most e-government services (over 110) will accept user login using eID by mid-2021 while the remaining 20 or so e-government services will adopt eID progressively by 2023.
1) Take a photo of the HKID card for verification against forgery

2) Confirm the data captured from the HKID card

3) Take a selfie photo for photo verification against impersonation
Thank You

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