

26 February 2016

Report of Independent Certified Public Accountant

To the Management of Hongkong Post Certification Authority:

We have examined the assertion by the management of the Hongkong Post Certification Authority (“HKPCA”), with Certizen Limited (“Certizen”) as an agent of HKPCA¹, that in providing its Certification Authority (“CA”) services in the Hong Kong Special Administrative Region of the People’s Republic of China through the Root CA: “Hongkong Post Root CA 1” and “Hongkong Post Root CA 2”, during the period 1 January 2015 through 31 December 2015, HKPCA has:

- disclosed its Business, Key and Certificate Life Cycle Management, and CA Environmental Control practices in its [Certification Practice Statements](#), and maintained effective controls to provide reasonable assurance that it provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that:
 - subscriber information was properly authenticated (for the registration activities performed by HKPCA)
 - the integrity of keys and certificates it managed was established and protected throughout their life cycles
 - the integrity of subscriber keys and certificates it managed was established and protected throughout their life cycles
 - logical and physical access to CA systems and data was restricted to authorized individuals
 - the continuity of key and certificate life cycle management operations was maintained
 - CA systems development, maintenance and operations were properly authorized and performed to maintain CA system’s integrity

based on the [Trust Service Principles and Criteria for Certification Authorities Version 2.0](#).

HKPCA with Certizen as its agent is responsible for the management assertions. Our responsibility is to express an opinion on management’s assertion based on our examination.

HKPCA makes use of external registration authorities for specific subscriber registration activities as disclosed in HKPCA’s business practices disclosures. Our assessment of the management assertion for the purpose of this Trust Service Principles and Criteria for Certification Authorities Version 2.0 examination did not extend to the controls of the external registration authorities.

¹ HKPCA operations have been outsourced to Certizen for operating and maintaining the systems and services of HKPCA from 1 April 2012 to 31 March 2018, as disclosed in HKPCA’s business practices disclosure.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included (1) obtaining an understanding of HKPCA's business, key life cycle management, certificate life cycle management and information privacy practices and its controls over key and certificate integrity, over the authenticity and privacy of subscriber and relying party information, over the continuity of key and certificate life cycle management operations, and over development, maintenance and operation of system's integrity; (2) selectively testing transactions executed in accordance with disclosed business, key life cycle management, certificate life cycle management and information privacy practices; (3) testing and evaluating the operating effectiveness of the controls; and (4) performing such other procedures as we considered necessary in the circumstances. We believe that our examination provides a reasonable basis for our opinion.

The relative effectiveness and significance of specific controls at HKPCA and their effect on assessments of control risk for subscribers and relying parties are dependent on their interaction with the controls, and other factors present at individual subscriber and relying party locations. We have performed no procedures to evaluate the effectiveness of controls at individual subscriber and relying party locations.

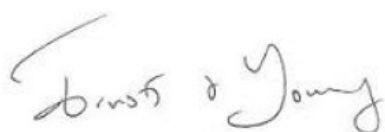
Because of inherent limitations in controls, errors or fraud may occur and not be detected. Furthermore, the projection of any conclusions, based on our findings, to future periods is subject to the risk that the validity of such conclusions may be altered because of (1) changes made to the system or controls, (2) changes in processing requirements, (3) changes required because of the passage of time, or (4) degree of compliance with the policies or procedures may alter the validity of such conclusions.

In our opinion, for the period 1 January 2015 through 31 December 2015, HKPCA management's assertion, as set forth in the first paragraph, is fairly stated, in all material respects, based on the [Trust Service Principles and Criteria for Certification Authorities Version 2.0](#).

The WebTrust seal of assurance for the Certification Authority on HKPCA's website constitutes a symbolic representation of the contents of this report and it is not intended, nor should it be construed, to update this report or provide any additional assurance.

This report does not include any representation as to the quality of HKPCA's services beyond those covered by the [Trust Service Principles and Criteria for Certification Authorities Version 2.0](#), nor the suitability of any of HKPCA's services for any customer's intended purpose.

Yours faithfully,



26 February 2016

Assertion of Management as to the Disclosure of Business Practices and Controls over the Hongkong Post Certification Authority Operations during the period from 1 January 2015 through 31 December 2015

The Postmaster General operates as a Certification Authority (“CA”) known as Hongkong Post Certification Authority (“HKPCA”) through its Root CA: “Hongkong Post Root CA 1” and “Hongkong Post Root CA 2”. HKPCA provides the following certification authority services:

- Subscriber key management services
- Subscriber registration
- Certificate issuance
- Certificate renewal
- Certificate distribution
- Certificate revocation, and
- Certificate status information processing

The HKPCA operations were outsourced to Certizen Limited (“Certizen”) on 13 October 2011 for operating and maintaining the systems and services of HKPCA from 1 April 2012 to 31 March 2018, as disclosed in HKPCA’s business practices disclosures. HKPCA with Certizen as its agent is responsible for the management assertions of the HKPCA operations.

HKPCA with Certizen as its agent is responsible for establishing and maintaining effective controls over its Certification Authority operations, including CA business practices disclosures, service integrity (including key and certificate life cycle management controls), and CA environmental controls. These controls contain monitoring mechanisms, and actions are taken to correct deficiencies identified.

There are inherent limitations in any controls including the possibility of human error and the circumvention or overriding of controls. Accordingly, even effective internal controls can provide only reasonable assurance with respect to HKPCA’s operations. Furthermore because of changes in conditions, the effectiveness of controls may vary over time.

HKPCA with Certizen as its agent has assessed the disclosure of its certification practices and its controls over its CA operations. Based on that assessment and in management’s opinion, HKPCA with Certizen as its agent, in providing its Certification Authority (“CA”) services in the Hong Kong Special Administrative Region of the People’s Republic of China through the Root CA: “Hongkong Post Root CA 1” and “Hongkong Post Root CA 2”, during the period from 1 January 2015 through 31 December 2015:

- disclosed its Business, Key and Certificate Life Cycle Management, and CA Environmental Control practices in HKPCA’s [Certification Practice Statements](#), and maintained effective controls to provide reasonable assurance that it provided such services in accordance with its disclosed practices

- maintained effective controls to provide reasonable assurance that:
 - subscriber information was properly authenticated (for the registration activities performed by HKPCA)
 - the integrity of keys and certificates it managed was established and protected throughout their life cycles
 - the integrity of subscriber keys and certificates it managed was established and protected throughout their life cycles
 - logical and physical access to CA systems and data was restricted to authorized individuals
 - the continuity of key and certificate life cycle management operations was maintained
 - CA systems development, maintenance and operations were properly authorised and performed to maintain CA systems integrity.

based on the [Trust Service Principles and Criteria for Certification Authorities Version 2.0](#), including the following:

CA Business Practices Disclosure

CA Business Practices Management

- Certification Practice Statement Management

Service Integrity

CA Key Life Cycle Management Controls

- CA Key Generation
- CA Key Storage, Backup and Recovery
- CA Public Key Distribution
- CA Key Usage
- CA Key Destruction and Archival
- CA Key Compromise
- CA Cryptographic Hardware Life Cycle Management

Subscriber Key Life Cycle Management Controls

- CA-Provided Subscriber Key Generation Services

Certificate Life Cycle Management Controls

- Subscriber Registration
- Certificate Renewal
- Certificate Issuance
- Certificate Distribution
- Certificate Revocation
- Certificate Validation

CA Environmental Controls

- Security Management
- Asset Classification and Management
- Personnel Security
- Physical and Environmental Security
- Operations Management

- System Access Management
- Systems Development and Maintenance
- Business Continuity Management
- Monitoring and Compliance
- Audit Logging

Yours faithfully



(Leonard LAM)
for Postmaster General



(Eva CHAN)
for Certizen Limited