



**THE CERTIFICATION PRACTICE STATEMENT**

**OF**

**THE POSTMASTER GENERAL**

**As**

**A Recognized Certification Authority  
under the Electronic Transactions Ordinance**

**for**

**Hongkong Post g-Cert (Individual)  
Hongkong Post g-Cert (Functional Unit)**

Date : 19 July 2019  
OID : 1.3.6.1.4.1.16030.1.8.1

---

## Table of Contents

<b>PREAMBLE</b>	<b>4</b>
<b>1. INTRODUCTION</b>	<b>6</b>
<b>1.1 Overview</b>	6
<b>1.2 Community and Applicability</b>	6
1.2.1 Certification Authority	6
1.2.3 End Entities	7
1.2.4 Classes of Subscribers	8
1.2.4.1 g-Cert (Individual) Certificates	8
1.2.4.2 g-Cert (Functional Unit) Certificates	9
1.2.5 Certificate Lifespan	9
1.2.6 Application via CMMP	9
<b>1.3 Contact Details</b>	10
<b>1.4 Complaints Handling Procedures</b>	10
<b>2. GENERAL PROVISIONS</b>	<b>11</b>
<b>2.1 Obligations</b>	11
2.1.1 CA Obligations	11
2.1.2 Contractor Obligations	11
2.1.3 CMMP Obligations	11
2.1.4 B/D/O Obligations	12
2.1.5 Subscriber Obligations	12
2.1.6 Relying Party Obligations	13
<b>2.2 Further Provisions</b>	13
2.2.1 Reasonable Skill and Care	13
2.2.2 No Supply of Goods	14
2.2.3 Limitation of Liability	14
2.2.4 HKPost's Liability for Received but Defective Certificates	17
2.2.5 Assignment by Subscriber	17
2.2.6 Authority to Make Representations	17
2.2.7 Variation	17
2.2.8 Retention of Title	17
2.2.9 Conflict of Provisions	17
2.2.10 Fiduciary Relationships	17
2.2.11 Cross Certification	18
2.2.12 Financial Responsibility	18
<b>2.3 Interpretation and Enforcement (Governing Law)</b>	18
2.3.1 Governing Law	18
2.3.2 Severability, Survival, Merger, and Notice	18
2.3.3 Dispute Resolution Procedures	18
2.3.4 Interpretation	18
<b>2.4 Subscription Fees</b>	18
<b>2.5 Publication and Repository</b>	18
2.5.1 Certificate Repository Controls	19
2.5.2 Certificate Repository Access Requirements	19
2.5.3 Certificate Repository Update Cycle	19
2.5.4 Permitted Use of Information Contained in the Repository	19
<b>2.6 Compliance Assessment</b>	19
<b>2.7 Confidentiality</b>	19
<b>3. IDENTIFICATION AND AUTHENTICATION</b>	<b>20</b>
<b>3.1 Initial Application</b>	20
3.1.1 Types of Names	20
3.1.2 Need for Names to be Meaningful	21
3.1.3 Rules for Interpreting Various Names	21
3.1.4 Name Uniqueness	21
3.1.5 Name Claim Dispute Resolution Procedure	21
3.1.6 Infringement and Violation of Trademarks	21
3.1.7 Method to Prove Possession of the Private Key	21
3.1.8 Authentication of Identity of g-Cert (Individual) Applicant	21
<b>3.2 Certificate Renewal</b>	22

3.2.1 g-Cert certificates.....	22
3.2.2 Validity Period of Renewed g-Cert.....	22
<b>4. OPERATIONAL REQUIREMENTS.....</b>	<b>23</b>
<b>4.1 Certificate Application.....</b>	<b>23</b>
<b>4.2 Certificate Issuance.....</b>	<b>23</b>
<b>4.3 Publication of g-Cert.....</b>	<b>23</b>
<b>4.4 Certificate Revocation .....</b>	<b>23</b>
4.4.1 Circumstances for Revocation .....	23
4.4.2 Revocation Request Procedure .....	24
4.4.3 Service Pledge & Certificate Revocation List Update .....	25
4.4.4 Effect of Revocation .....	26
<b>4.5 Computer Security Audit Procedures .....</b>	<b>26</b>
4.5.1 Types of Events Recorded.....	26
4.5.2 Frequency of Processing Log .....	26
4.5.3 Retention Period for Audit Logs.....	26
4.5.4 Protection of Audit Logs .....	26
4.5.5 Audit Log Backup Procedures.....	26
4.5.6 Audit Information Collection System .....	26
4.5.7 Notification of Event-Causing Subject to HKPost.....	26
4.5.8 Vulnerability Assessments .....	26
<b>4.6 Records Archival .....</b>	<b>27</b>
4.6.1 Types of Records Archived.....	27
4.6.2 Archive Retention Period .....	27
4.6.3 Archive Protection .....	27
4.6.4 Archive Backup Procedures .....	27
4.6.5 Timestamping .....	27
<b>4.7 Key Changeover.....</b>	<b>27</b>
<b>4.8 Disaster Recovery and Key Compromise Plans .....</b>	<b>27</b>
4.8.1 Disaster Recovery Plan .....	27
4.8.2 Key Compromise Plan .....	28
4.8.3 Key Replacement.....	28
<b>4.9 CA Termination.....</b>	<b>28</b>
<b>4.10 RA of B/D/O Termination.....</b>	<b>28</b>
<b>5. PHYSICAL, PROCEDURAL AND PERSONNEL SECURITY CONTROLS.....</b>	<b>29</b>
<b>5.1 Physical Security.....</b>	<b>29</b>
5.1.1 Site Location and Construction.....	29
5.1.2 Access Controls .....	29
5.1.3 Power and Air Conditioning.....	29
5.1.4 Natural Disasters.....	29
5.1.5 Fire Prevention and Protection .....	29
5.1.6 Media Storage.....	29
5.1.7 Off-site Backup.....	29
5.1.8 Protection of Documents.....	29
<b>5.2 Procedural Controls.....</b>	<b>29</b>
5.2.1 Trusted Role .....	29
5.2.2 Transfer of Document and Data between HKPost, Contractors, CMMP and RAs .....	29
5.2.3 Annual Assessment.....	30
<b>5.3 Personnel Controls.....</b>	<b>30</b>
5.3.1 Background and Qualifications.....	30
5.3.2 Background Investigation.....	30
5.3.3 Training Requirements.....	30
5.3.4 Documentation Supplied To Personnel .....	30
<b>6. TECHNICAL SECURITY CONTROLS.....</b>	<b>31</b>
<b>6.1 Key Pair Generation and Installation.....</b>	<b>31</b>
6.1.1 Key Pair Generation.....	31
6.1.2 Subscriber Public Key Delivery to Certificate Issuer.....	31
6.1.3 Public Key Delivery to Relying Parties.....	31
6.1.4 Key Sizes.....	31
6.1.5 Standards for Cryptographic Module.....	31

---

6.1.6 Key Usage Purposes .....	31
<b>6.2 Private Key Protection</b> .....	<b>31</b>
6.2.1 Standards for Cryptographic Module .....	31
6.2.2 Private Key Multi-Person Control .....	31
6.2.3 Private Key Escrow.....	31
6.2.4 Backup of HKPost Private Keys .....	32
<b>6.3 Other Aspects of Key Pair Management</b> .....	<b>32</b>
<b>6.4 Computer Security Controls</b> .....	<b>32</b>
<b>6.5 Life Cycle Technical Security Controls</b> .....	<b>32</b>
<b>6.6 Network Security Controls</b> .....	<b>32</b>
<b>6.7 Cryptographic Module Engineering Controls</b> .....	<b>32</b>
<b>7. CERTIFICATE AND CERTIFICATE REVOCATION LIST PROFILES</b> .....	<b>33</b>
7.1 Certificate Profile.....	33
7.2 Certificate Revocation List Profile .....	33
<b>8. CPS ADMINISTRATION</b> .....	<b>34</b>
Appendix A - Glossary .....	35
Appendix B - Hongkong Post g-Cert Format .....	39
Appendix C - Hongkong Post Certificate Revocation Lists (CRLs) and Authority Revocation List (ARL) Format .....	43
Appendix D - Summary of Hongkong Post g-Cert Features.....	46
Appendix E - List of Subscriber Organisation / Registration Authorities and CMMP for the Hongkong Post g-Cert, if any .....	47
Appendix F - List of Subcontractor(s) of Certizen Limited for Hongkong Post g-Cert Services, if any .....	50
Appendix G - Lifespan of CA root certificates.....	51
Appendix H - List of the Designated Application of Hongkong Post g-Cert Certificates.....	52

---

© COPYRIGHT of this document is vested in the Postmaster General. This document may not be reproduced in whole or in part without the express permission of the Postmaster General.

## PREAMBLE

The Electronic Transactions Ordinance (Cap. 553) (the "Ordinance") sets out the legal framework for the public key infrastructure (PKI) initiative. The PKI facilitates the use of electronic transactions for commercial and other purposes. The PKI is composed of many elements, including legal obligations, policies, hardware, software, databases, networks, and security procedures.

Public Key Cryptography involves the use of a Private Key and a Public Key. A Public Key and its corresponding Private Key are mathematically related. The main principle behind Public Key Cryptography used in electronic transactions is that a message that is encrypted with a Public Key can only be decrypted with its corresponding Private Key, and a message that is encrypted with a Private Key can only be decrypted by its corresponding Public Key.

The PKI is designed to support the use of such a method for commercial and other transactions in Hong Kong Special Administrative Region ("Hong Kong SAR").

Under the Ordinance, the Postmaster General is a Recognized Certification Authority ("CA") for the purposes of the Ordinance and the PKI. Under the Ordinance the Postmaster General may perform the functions and provide the services of a CA by the officers of the Hong Kong Post Office. The Postmaster General has decided so to perform his functions, and he is therefore referred for the purposes of this document as **HKPost**.

Since 1 April 2007, the HKPost CA operations have been outsourced with private sector participation. Currently, HKPost has awarded a contract ("Contract") to Certizen Limited for operating and maintaining the systems and services of the HKPost CA as stipulated in this CPS from 1 April 2012 to 31 March 2018. The period of the Contract has been subsequently extended to 31 December 2019.

Under the Contract, Certizen Limited, after obtaining the prior written consent of HKPost, may appoint Subcontractor(s) for the performance of part of the Contract. A list of Subcontractor(s) of Certizen Limited, if any, can be found in **Appendix F**. Certizen Limited, together with its Subcontractor(s) under the Contract, if any, is hereafter referred to as the "Contractor" for the purpose of this CPS.

HKPost remains a recognized CA under Section 34 of the Ordinance and the Contractor is an agent of HKPost appointed pursuant to Section 3.2 of the Code of Practice for Recognized Certification Authorities issued by the Government Chief Information Officer under Section 33 of the Ordinance.

HKPost, as a recognized CA, is responsible under the Ordinance for the use of a Trustworthy System for the issuance, revocation and publication in a publicly available Repository of recognized and accepted digital certificates for secure on-line identification. **The g-Cert (Individual) and g-Cert (Functional Unit) certificates issued under this CPS are Recognized Certificates under the Ordinance and are referred to as "Certificates" or "g-Certs" in this CPS.**

Under the Ordinance HKPost may do anything that is expedient for the performance of the functions, and the provision of the services, of a CA and under the Code of Practice for Recognized Certification Authorities issued by the Government Chief Information Officer, HKPost may appoint agents or subcontractors to carry out some or all of its operations.

---

This CPS sets out practices and standards for g-Cert, and the structure of this CPS is as follows:

- Section 1 provides an overview and contact details
- Section 2 sets out the responsibilities and liabilities of the parties
- Section 3 sets out application and identity confirmation procedures
- Section 4 describes the operational requirements
- Section 5 presents the security controls
- Section 6 sets out how the Public/Private Key pairs will be generated and controlled
- Section 7 describes the certificate and certificate revocation list profiles
- Section 8 documents how this CPS will be administered

Appendix A contains a glossary

Appendix B contains a Hongkong Post g-Certs format

Appendix C contains a Hongkong Post Certificate Revocation List (CRL) and Authority Revocation List (ARL) format

Appendix D contains a summary of Hongkong Post g-Certs features

Appendix E contains a list of Subscriber Organisation / Registration Authorities (RAs) and CMMP for Hongkong Post g-Cert, if any

Appendix F contains a list of Subcontractor(s) of Certizen Limited for Hongkong Post g-Certs Services, if any

Appendix G describes lifespan of CA root certificates

Appendix H contains a list of Designated Applications of Hongkong Post g-Certs Certificates

---

## 1. INTRODUCTION

### 1.1 Overview

This Certification Practice Statement ("CPS") is published for public knowledge by HKPost and specifies the practices and standards that HKPost employs in issuing, revoking and publishing certificates.

The Internet Assigned Numbers Authority ("IANA") has assigned the Private Enterprise Number 16030 to HKPost. For identification purpose, this CPS bears an Object Identifier ("OID") "1.3.6.1.4.1.16030.1.8.1" (see description of the field "Certificate Policies" in **Appendix B**).

This CPS sets out the roles, functions, obligations, and potential liabilities of the participants in the system used by HKPost. It specifies the procedures used to confirm the identity of all Applicants for certificates issued under this CPS and describes the operational, procedural, and security requirements of HKPost.

Certificates issued by HKPost in accordance with this CPS will be relied upon by Relying Parties and used to verify Digital Signatures. Each Relying Party making use of a HKPost issued certificate must make an independent determination that PKI based Digital Signatures are appropriate and sufficiently trusted to be used to authenticate the identity of the participants in the Designated Application of the certificate. Relying Party must not make use of the HKPost issued certificate in any PKI applications other than the Designated Application in respect of the Subscriber Organisation of the certificate listed in **Appendix H**.

Offer of g-Cert certificates requires prior arrangement between the subscriber organisation and HKPost before HKPost issues g-Cert certificates for that subscriber organisation.

Under the Ordinance, HKPost is a recognized CA. **HKPost has designated the g-Cert (Individual), g-Cert (Functional Unit) certificates issued under this CPS as Recognized Certificates.** This means for both Subscribers and Relying Parties, that HKPost has a legal obligation under the Ordinance to use a Trustworthy System for the issuance, revocation and publication in a publicly available Repository of accepted Recognized Certificates. Recognized Certificates have characteristics of accuracy and contain representations of fact which are defined in law by the Ordinance, including a representation (as further defined below) that such certificates have been issued in accordance with this CPS. The fact that HKPost has appointed agents or contractors or subcontractors does not diminish HKPost's obligation to use a Trustworthy System, nor does it alter the characteristics that g-Cert certificates have as recognized certificates.

A summary of the g-Cert features is in **Appendix D**.

### 1.2 Community and Applicability

#### 1.2.1 Certification Authority

Under this CPS, HKPost performs the functions and assumes the obligations of a CA. HKPost is the only CA authorised to issue certificates under this CPS (see Section 2.1.1).

##### 1.2.1.1 Representations by HKPost

By issuing a certificate that refers to this CPS, HKPost represents to Relying Parties who act in accordance with Section 2.1.6 and other relevant sections of this CPS, that HKPost has issued the certificate in accordance with this CPS. By publishing a certificate that refers to this CPS, HKPost represents to Relying Parties who act in accordance with Section 2.1.6 and other relevant sections of this CPS that HKPost has issued the certificate to the Subscriber identified in it.

##### 1.2.1.2 Effect

HKPost publishes recognized certificates that are accepted by and issued to its Subscribers in a Repository. (See Section 2.5)



---

### 1.2.1.3 HKPost's Right to Subcontract

HKPost may further subcontract its obligations for performing some or all of the functions required by this CPS and the Subscriber Agreement provided that the subcontractor agrees to undertake to perform those functions and enters into a contract with HKPost to perform the services. In the event that such sub-contracting occurs, HKPost shall remain liable for the performance of the CPS and the Subscriber Agreement as if such sub-contracting had not occurred.

### 1.2.2 CMMP

Centrally Managed Messaging Platform under the administration and support of OGCIO (hereafter referred to as CMMP) is to provide various Designated Applications in **Appendix H** for use by Bureau/Department/Office of the Government of Hong Kong SAR ("B/D/O"). The CMMP will adopt X.509 v3 digital certificates, the new special purpose digital certificates issued by Hongkong Post Certification Authority (HKPCA), to handle restricted information

HKPost deals with the Applicant or Subscriber of g-Cert via the role of Requester assigned in CMMP. In this regard, CMMP is the agent serving the Applicant for and Subscriber of g-Cert.

At the same time, the role of Business Administrator is assigned by B/D/O in CMMP to verify the identity of the Applicant for g-Cert. In this regard, Business Administrator acts as Registration Authority for g-Cert (hereafter referred to as Registration Authority ("RA")).

All other functions and obligations, including the functions to be performed by CMMP arising from the certificate life-cycle management and the usage from time to time of the g-Cert, regardless of the nature of the Designated Application, are functions and obligations undertaken by CMMP whether as principal or as agent for its Subscriber but not as sub-contractor or agent for the Contractor and for HKPost.

### 1.2.3 End Entities

Under this CPS there are two types of end entities, Subscribers and Relying Parties. A Subscriber is the "Subscriber" or "Subscriber Organisation" referred to in **Appendix A**. Relying Parties are entities that have relied on any class or category of g-Cert for use in a transaction of the Designated Application referred to in **Appendix H**. For the avoidance of doubt, Relying Parties should not rely on the B/D/O or the Contractor. For g-Cert certificates that are issued via the B/D/O or the Contractor, the B/D/O and the Contractor do not owe a duty of care and are not responsible to the Relying Parties in anyway for the issue of those g-Cert certificates (see also Section 2.1.4). Subscribers who rely on an g-Cert of another Subscriber for use in a transaction of the Designated Application of the Subscriber Organisation referred to in **Appendix H** will be Relying Parties in respect of such a certificate.

#### 1.2.3.1 Warranties and Representations by Applicants and Subscribers

Each Applicant (represented by a Requester in the case of applying for an g-Cert certificate) must sign, or confirm his/her acceptance of, an agreement (in the terms specified in this CPS) which includes a term by which the Applicant agrees that by accepting a certificate issued under this CPS, the Applicant/Subscriber Organisation warrants (promises) to HKPost and represents to all other relevant parties (and in particular Relying Parties) that during the operational period of the certificate the following facts are and will remain true:

- a) Designated Applications effectuated using the private key corresponding to the public key included in the certificate are the acts of the Subscriber and that the certificate has been accepted and is properly operational at the time throughout the validity of the certificate;
- b) All Information and representations made by the Subscriber included in the certificate are true;
- c) The Certificate is used exclusively for authorised and legal purposes consistent with this CPS;



- 
- d) The Subscriber will use the certificate in Designated Application stipulated in **Appendix H**;
  - e) The Subscriber agrees with the terms and conditions of this CPS and other agreements and policy statement of HKPost;
  - f) The Subscriber has authorised CMMP to access the Subscriber's Private Key of the Certificate in Designated Applications stipulated in **Appendix H**;
  - g) All information supplied does not infringe or violate in any way the trademarks, service marks, trade name, company name, or other intellectual property rights of any third party upon issuance, acceptance, throughout the validity of the Certificate.

#### 1.2.4 Classes of Subscribers

HKPost issues certificates under this CPS only to Applicants whose application for a certificate has been approved and confirmed their acceptance of a Subscriber Agreement in the appropriate form.

##### 1.2.4.1 g-Cert (Individual) Certificates

A g-Cert (Individual) is issued to CMMP Users under B/D/Os (the "Subscriber Organisation" as listed in **Appendix E**); and identifies a CMMP User of a Subscriber Organisation whom that Subscriber Organisation has duly authorised the use of Private Key of that g-Cert (Individual) issued to that Subscriber. Offer of g-Cert (Individual) certificates requires prior arrangement between HKPost and the Subscriber Organisation.

A CMMP User includes:

- (a) Civil servants and contract staff employed by government direct;
- (b) Agency / body-shop contract staff (including T-contract IT staff);
- (c) Resident officers engaged under contract arrangement (e.g. outsourcing contract) other than (b) above.

HKPost issues certificates under this CPS only to Applicants whose application for a certificate has been approved and confirmed their acceptance of a Subscriber Agreement in the appropriate form.

Certificates of this class are to be used in CMMP only:

- (a) To encrypt, decrypt and sign electronic messages;
- (b) To sign documents;
- (c) To perform authentication within the CMMP; and
- (d) To acknowledge receipt of encrypted message by sending an acknowledgement with a digital signature added to it to confirm the receiving user's identity for messages exchange between the CMMP and other parties.

g-Cert (Individual) certificates can only be used by CMMP Users in respect of the Designated Applications set out against the name of that Subscriber Organisation referred to in **Appendix E**.

**SUBSCRIBER ORGANISATION UNDERTAKES TO HKPOST NOT TO GIVE AUTHORITY TO THE CMMP USER OF THE G-CERT (INDIVIDUAL) TO USE THE CERTIFICATE FOR ANY PURPOSE OTHER THAN TO ENCRYPT, DECRYPT AND SIGN ELECTRONIC MESSAGES, TO SIGN DOCUMENTS, TO PERFORM AUTHENTICATION WITHIN CMMP, OR GENERATE A DIGITAL SIGNATURE WITHIN THE DESIGNATED APPLICATION REFERRED TO IN APPENDIX H.**

**THE SIGNATURES GENERATED ARE NOT INTENDED TO SERVE AS DIGITAL SIGNATURES FOR TRANSACTIONS AS DEFINED UNDER THE ELECTRONIC TRANSACTIONS ORDINANCE ("ETO") (CAP. 553).**

---

#### 1.2.4.2 g-Cert (Functional Unit) Certificates

A g-Cert (Functional Unit) is issued to CMMP functional unit under B/D/Os of the Government of Hong Kong SAR (the “Subscriber Organisation” as listed in **Appendix E**); and identifies a CMMP functional unit of a Subscriber Organisation whom that Subscriber Organisation has duly authorised the use of Private Key of that g-Cert (Functional Unit) issued to that Functional Unit. Offer of g-Cert (Functional Unit) certificates requires prior arrangement between HKPost and the Subscriber Organisation.

g-Cert (Functional Unit) is for use by functional units under B/D/O.

HKPost issues certificates under this CPS only to Applicants whose application for a certificate has been approved and confirmed their acceptance of a Subscriber Agreement in the appropriate form.

Certificates of this class are to be used in CMMP only:

- (a) To encrypt and decrypt electronic messages; and
- (b) To acknowledge receipt of encrypted message by sending an acknowledgement with a digital signature added to it to confirm the receiving user’s identity, which is the identity of this functional unit.

g-Cert (Functional Unit) certificates can only be used by CMMP functional units in respect of the Designated Applications set out against the name of that Subscriber Organisation referred to in **Appendix E**.

SUBSCRIBER ORGANISATION UNDERTAKES TO HKPOST NOT TO GIVE AUTHORITY TO THE CMMP USER OF THE G-CERT (FUNCTIONAL UNIT) TO USE THE CERTIFICATE FOR ANY PURPOSE OTHER THAN TO ENCRYPT AND DECRYPT ELECTRONIC MESSAGES, OR GENERATE A DIGITAL SIGNATURE WITHIN THE DESIGNATED APPLICATION REFERRED TO IN **APPENDIX H**.

THE SIGNATURES GENERATED ARE NOT INTENDED TO SERVE AS DIGITAL SIGNATURES FOR TRANSACTIONS AS DEFINED UNDER THE ELECTRONIC TRANSACTIONS ORDINANCE (“ETO”) (CAP. 553).

#### 1.2.5 Certificate Lifespan

The validity period of a certificate commences on the date the certificate is generated by the HKPost system.

The certificate validity of g-Cert (Individual) ranges from one year to three years. The validity period of the certificate for the certificate holder can be selected by B/D/O subject to their business needs.

The certificate validity of g-Cert (Functional Unit) ranges from one year to three years. The validity period of the certificate for the certificate holder can be selected by B/D/O subject to their business needs.

Certificates issued under this CPS may have different lifespans depending upon the Subscriber Organisation in connection with which certificate. HKPost will agree with that Subscriber Organisation the length of validity applicable to the g-Cert in relation to which that Subscriber Organisation will act. The lifespan of certificates is set out in **Appendix G**. (See Section 3.2 for Certificate Renewal).

#### 1.2.6 Application via CMMP

All first applications and applications of a new g-Cert following the revocation or expiration of g-Cert will require the Requesters on behalf of Applicants to submit their applications via CMMP

---

as described in sections 3 and 4 of this CPS.

### **1.3 Contact Details**

Subscribers may send their enquiries, suggestions or complaints by:

Mail to : Hongkong Post Certification Authority, Kowloon East Post Office Box 68777

Tel: 2921 6633

Fax: 2775 9130

Email: [enquiry@eCert.gov.hk](mailto:enquiry@eCert.gov.hk)

### **1.4 Complaints Handling Procedures**

HKPost will handle all written and verbal complaints expeditiously. Upon receipt of the complaint, a full reply will be given to the complainant within 7 working days. In the cases where full replies cannot be issued within 7 working days, interim replies will be issued. As soon as practicable, designated staff of HKPost will contact the complainants by phone, email or letter mail to acknowledge and reply to the complaints.

---

## 2. GENERAL PROVISIONS

### 2.1 Obligations

HKPost's obligations to Subscribers are defined and limited by this CPS and by the terms of the contracts with Subscribers in the form of a Subscriber Agreement. This is so whether the Subscriber is also a Relying Party in relation to a certificate of another Subscriber. In relation to Relying Parties who are not Subscribers, this CPS gives them notice that HKPost undertakes only to exercise reasonable care and skill to avoid causing certain categories of loss and damage to Relying Parties in issuing, revoking and publishing certificates in conformity with the Ordinance and this CPS, and places a monetary limit in respect of such liability as it may have as set out below and in the Certificates issued.

#### 2.1.1 CA Obligations

HKPost, as a recognized CA, is responsible under the Ordinance for the use of a Trustworthy System for the issuance, revocation, and publication in a publicly available Repository of Recognized Certificates that have been accepted by the Subscriber. In accordance with this CPS, HKPost has the obligation to:

- a) Receive application for certificates via CMMP;
- b) Process application for certificates via CMMP;
- c) Issue and publish certificates in the Repository based on the CSR submitted;
- d) notify Applicants, via CMMP, approval or rejection of their applications;
- e) revoke certificates and publish Certificate Revocation Lists in a timely manner; and
- f) notify Subscribers, whether via CMMP or directly, of the revocation of their certificates.

#### 2.1.2 Contractor Obligations

The Contractor is responsible only to HKPost under the terms of the Contract between HKPost and the Contractor under which the Contractor has been appointed by HKPost as its agent to set up, modify, provide, supply, deliver, operate, administer, promote and maintain the HKPost CA systems and services as stipulated in this CPS. HKPost is and remains responsible for the activities of the Contractor in the performance or purported performance by the Contractor of the functions, power, rights and duties of HKPost.

#### 2.1.3 CMMP Obligations

CMMP is responsible for:

- a) Defining user role "Requester" in CMMP so that B/D/O can assign staff to act as "Requester" for raising requests of certification, certificate renewal or certificate revocation on behalf of the CMMP User (the Applicant);
- b) Defining user role "Business Administrator" in CMMP so that B/D/O can assign staff as RA for verifying the identity of the Applicant and approving the requests of certificate application, renewal and revocation in the CMMP;
- c) Ensuring a CMMP User could not take up the role of "Business Administrator" and "the Requester" at the same time for a request for segregation of duties;
- d) Defining and providing approval workflows acted on by different user roles in CMMP ("Requester", "Business Administrator") to conduct the corresponding tasks (submit request, verify and approve request) for the process of certificate application, renewal and revocation;
- e) Generating and submitting certificate signing requests (CSR) on behalf of the Applicant to HKPost containing information in relation to the Applicant that matches with the information known to the CMMP at time of submission, together with the Applicant's confirmation on the Subscriber's terms and conditions;
- f) Accepting the issued g-Cert from HKPost in a secure manner on behalf of the Applicant;
- g) Ensuring that the generation of the Subscriber's Key Pair and its storage in a hardware security module ("HSM") of the CMMP;
- h) Ensuring the safe custody of the Subscriber's Key Pair;
- i) Ensuring that the g-Cert is only used for the Designated Application specified in **Appendix H**;
- j) Ensuring that the use by a Subscriber of a g-Cert certificate for purposes other than the

- 
- Designated Application in **Appendix H** will not be permitted;
- k) Ensuring that only the Subscribers and / or the functional units specified in the g-Cert can make use of their Private Key to generate digital signature for the relevant Designated Application;
  - l) Verifying the identity of the Subscriber, before the Subscriber is permitted using its g-Cert in Designated Application;
  - m) Quoting the Applicant/Subscriber's information through the use of a unique identity number assigned, that must uniquely reference to the Subscriber's evidence of identity, for submission of g-Cert application;
  - n) Each time a g-Cert issued is used in a Designated Application, ensuring that the g-Cert has not expired or revoked based on the information as shown in the Repository and the CRL. Where g-Cert is expired or revoked, ensuring that the Designated Application will not be processed or completed using such g-Cert;
  - o) Complying with all notices, instructions and manuals issued by HKPost from time to time; and
  - p) Complying with this CPS.

#### **2.1.4 B/D/O Obligations**

B/D/O are responsible for:

- a) Assigning "Business Administrator" to act as the RA for verifying the identity of the Applicant and approving the requests of certificate application, renewal and revocation via the "Business Administrator" in CMMP;
- b) Keeping of documentation evidence on the verification of identity of the applicants undertaken by "Business Administrator" role;
- c) Assigning "Requester" for raising request of certificate application, renewal or revocation on behalf of the Applicant;
- d) Ensuring the "Requester" complete the application procedures properly and confirm acceptance of the Subscriber terms and conditions on behalf of the Applicant;
- e) Ensuring the g-Cert is used properly for Designated Application in Appendix H; and
- f) Ensuring the "Business Administrator" approve the request of certificate revocation within the number of working day(s) pre-defined by B/D/O;

#### **2.1.5 Subscriber Obligations**

Subscribers are responsible for:

- a) Agreeing that the key pair is generated by CMMP in a hardware security module and environment within CMMP's premises on behalf of the Subscriber;
- b) Accurately following the procedures specified in this CPS as to the expiry of Certificate;
- c) Notifying the RA from time to time of any change in the Information of Subscriber relating to the Certificate;
- d) Notifying the RA identified in the relevant certificate immediately of any fact which may give rise to HKPost, upon the grounds set out in Section 4 below, having the right to revoke the certificate for which that Subscriber is responsible.
- e) Agreeing that by having been issued or accepting a certificate they warrant (promise) to HKPost and represent to all Relying Parties that during the operational period of the certificate, the facts stated in Section 1.2.3.1 above are and will remain true;
- f) Not using a certificate in a transaction on becoming aware of any ground upon which HKPost, or the Contractor or the RA, on HKPost's behalf, could revoke it under the terms of the CPS, or after the Subscriber has made a revocation request or been notified by HKPost, or the RA or the Contractor (acting on behalf of HKPost) of its intention to revoke the certificate under the terms of this CPS;
- g) Upon becoming so aware of any ground upon which HKPost or the RA or the Contractor could revoke the certificate, or upon the Subscriber making a revocation request or upon being notified by HKPost, or the RA or the Contractor of its intention to revoke the certificate, immediately notifying Relying Parties in any transaction that remains to be completed at the time, that the certificate used in that transaction is liable to be revoked (either by HKPost or at the Applicant's or Subscriber's request) and stating in clear terms that, as this is the case, the Relying Parties should not rely upon the certificate in respect

- 
- of the transaction; and
- h) Acknowledging that by submitting an g-Cert application, they authorise the publication of the g-Cert to any other person or in the HKPost's Repository.

#### **2.1.5.1 Subscriber's Liability**

Each Subscriber acknowledges that if they do not discharge their responsibilities as set out above properly or at all, each Subscriber may become liable under the Subscriber Agreement and/or in law to pay HKPost and/or, under the law, other persons (including Relying Parties) damages in respect of liabilities or loss and damage they may incur or suffer in consequence.

#### **2.1.6 Relying Party Obligations**

Relying Parties relying upon g-Cert certificates are responsible for:

- a) Relying on such certificates only when the reliance is reasonable and in good faith in light of all the circumstances known to the Relying Party at the time of the reliance.
- b) Before relying upon an g-Cert determining that the use of the g-Cert is appropriate for its purposes in the corresponding Designated Application in **Appendix H** while the Contractor or CMMP does not undertake any duty of care to Relying Parties at all.
- c) Acknowledging that HKPost, CMMP or the Contractor does not undertake any responsibility or duty of care to Relying Parties if the g-Cert certificate is used or relied upon for any purposes other than the Designated Application in **Appendix H**.
- d) Checking the status of the certificate on the certificate revocation list prior to reliance.
- e) Performing all appropriate certificate path validation procedures.

## **2.2 Further Provisions**

### **Obligations of HKPost to Subscribers and Relying Parties**

#### **2.2.1 Reasonable Skill and Care**

HKPost undertakes to each Subscriber and to each Relying Party that a reasonable degree of skill and care will be exercised by HKPost, by the Contractor and by the RA when acting on its behalf in performing the obligations and exercising the rights it has as a CA set out in this CPS. **HKPost does not undertake any absolute obligations to the Subscriber(s) or Relying Parties. HKPost does not warrant that the services it provides under this CPS by itself, by the Contractor, by CMMP or by the RA or otherwise howsoever will be uninterrupted or error free or of a higher or different standard than that which should be achieved by the exercise by HKPost, or the officers, employees or agents of Hong Kong Post Office of a reasonable degree and skill and care.**

**The implications of this are that, if, despite the exercise of a reasonable degree of skill and care by HKPost, by the Contractor, by CMMP or by the RA in carrying out this contract and in exercising its rights and discharging its obligations under the CPS, a Subscriber, either as a Subscriber or Relying Party as defined in this CPS, or a Relying Party who is not a Subscriber suffers any liability, loss or damage of whatsoever nature arising out of or in connection with the PKI system as described in this CPS, including loss and damage consequent upon reasonable reliance upon a certificate of another Subscriber, each Subscriber agrees and each Relying Party must accept that HKPost, the Hong Kong Post Office, the Contractor, CMMP and any RA are under no liability of any kind in respect of such liability, loss or damage.**

**This means, for example, that provided that the HKPost, the Contractor, CMMP or the RA has exercised a reasonable degree of skill and care, HKPost, Hong Kong Post Office, the Contractor, CMMP and any such RA will not be liable for any loss to a Subscriber or Relying Party caused by their reliance upon a false or forged Digital Signature supported by another Subscriber's g-Cert issued by HKPost.**

**This means, also, that, provided HKPost (by the Hong Kong Post Office, the Contractor, CMMP or the RA) has exercised a reasonable degree of skill and care to avoid and/or mitigate the effects of matters beyond its control, neither HKPost, the Hong Kong Post**



---

**Office, the Contractor, CMMP nor any such RA is liable for the adverse effects to Subscribers or Relying Parties of any matters outside HKPost's control whatsoever, including (without limitation) the availability of the Internet, or telecommunications or other infrastructure systems or the adverse effects of the acts of God, war, military operations, national emergency, epidemic, fire, flood, earthquake, strike or riots or the negligence or deliberate wrongful conduct of other Subscribers or other third parties.**

### **2.2.2 No Supply of Goods**

For the avoidance of doubt, a Subscriber Agreement is not a contract for the supply of goods of any description or at all. Any and all certificates issued pursuant to it remain the property of and in the possession and control of HKPost and no right, title or interest in the certificates is transferred to the Subscriber, who merely has the right to procure the issue of a certificate and to rely upon it and the certificates of other Subscribers in accordance with the terms of the Subscriber Agreements. Accordingly the Subscriber Agreements contain (or are to contain) no express or implied terms or warranties as to the merchantability or fitness of a certificate for a particular purpose or any other terms or conditions appropriate in a contract for the supply of goods. Equally HKPost, in making available the certificates in a public Repository accessible by Relying Parties is not supplying any goods to Relying Parties and likewise gives to Relying Parties no warranty as to the merchantability or fitness for a particular purpose of a certificate nor makes any other representation or warranty as if it were supplying goods to Relying Parties. HKPost agrees to transfer those articles into possession of Applicants or Subscribers for the limited purposes set out in this CPS. Nonetheless HKPost will exercise reasonable care to see that the same is fit for the purposes of completing and accepting a certificate as set out in this CPS, and if it is not, then HKPost's liability shall be as set out in sections 2.2.3 - 2.2.4 below. In addition, the articles transferred from HKPost may contain other material not relevant to the completion and acceptance of an g-Cert and if it does, the legal position in relation to such material is not governed by the CPS or the Subscriber Agreement, but by separate terms and conditions that will be referred to in the terms and conditions enclosed in the articles.

### **2.2.3 Limitation of Liability**

#### **2.2.3.1 Reasonableness of Limitations**

Each Subscriber and Relying Party must agree that it is reasonable for HKPost to limit its liabilities as set out in the Subscriber Agreement and in this CPS.

#### **2.2.3.2 Limitation on Types of Recoverable Loss**

In the event of HKPost's breach of :-

- a) the Subscriber Agreement; or
- b) any duty of care, and in particular its duty under the Subscriber Agreement to exercise reasonable skill and care and/or duties that may arise to a Subscriber or Relying Party when any certificate issued by or on behalf of HKPost under the PKI is relied upon or used by a Subscriber or Relying Party or anyone else or otherwise howsoever,

whether a Subscriber or Relying Party suffers loss and damage as a Subscriber or as a Relying Party as defined by the CPS or otherwise howsoever, **HKPost shall not be liable for any damages or other relief in respect of :-**

- a) any direct or indirect loss of profits or revenue, loss or injury to reputation or goodwill, loss of any opportunity or chance, loss of projects, or the loss or loss of use of any data, equipment or software; or
- b) for any indirect, consequential or incidental loss or damage even if, in respect of the latter, HKPost has been advised of the likelihood of such loss or damage in advance.

#### **2.2.3.3 HK\$200,000 Limit**

**Subject to the exceptions that appear below, in the event of HKPost's breach of:-**

- a) the Subscriber Agreement and provision of this CPS; or



- 
- b) any duty of care, and in particular, any duty under the Subscriber Agreement, under this CPS or in law to exercise reasonable skill and care and/or any duties that may arise to a Subscriber or Relying Party when any certificate issued by HKPost under the public key infrastructure initiative is relied upon or used by a Subscriber or Relying Party or anyone else or otherwise howsoever, whether a Subscriber or Relying Party suffers loss and damage as a Subscriber or as a Relying Party as defined by the CPS or otherwise howsoever;

the liability of HKPost to any Subscriber and any Relying Party, whether as Subscriber or Relying Party as defined by the CPS or in any other capacity at all, is limited to, and shall not under any circumstances exceed, HK \$200,000 in respect of one g-Cert certificate.

#### **2.2.3.4 Time Limit For Making Claims**

Any Subscriber or Relying Party who wishes to make any legal claim upon HKPost arising out of or in any way connected with the issuance, revocation or publication of a HKPost g-Cert must do so within one year of the date upon which that Subscriber or Relying Party becomes aware of any facts giving rise to the right to make such a claim or (if earlier) within one year of the date when, with the exercise of reasonable diligence, they could have become aware of such facts. For the avoidance of doubt, ignorance of the legal significance of those facts is immaterial. After the expiration of this one-year time limit the claim shall be waived and absolutely barred.

#### **2.2.3.5 Hong Kong Post Office, the Contractor, CMMP, RAs and their Personnel**

Neither the Hong Kong Post Office, the Contractor, CMMP nor any RA nor any officer or employee or other agent of the Hong Kong Post Office, the Contractor, CMMP or any RA is to be a party to the Subscriber Agreement, and the Subscriber and Relying Parties must acknowledge to HKPost that, as far as the Subscriber and Relying Parties are aware, neither the Hong Kong Post Office, the Contractor, CMMP nor any RA nor any of their respective officers, employees or agents voluntarily accepts or will accept any personal responsibility or duty of care to the Subscriber or Relying Parties in connection with any action or omission done in good faith by any of them in any way connected either with the performance of HKPost of a Subscriber Agreement or any certificate issued by HKPost as a CA and each and every Subscriber and Relying Party accepts and will continue to accept that and undertakes to HKPost not to sue or seek any form of recovery or redress by other legal means whatsoever from any of the foregoing in respect of any act or omission done by that person in good faith (whether done negligently or not) in any way connected with either the performance of HKPost of a Subscriber Agreement or any certificate issued by HKPost as a CA and acknowledges that HKPost has a sufficient legal and financial interest to protect these organisations and individuals from such actions.

#### **2.2.3.6 Liability For Wilful Misconduct, Personal Injury or Death**

Any liability for fraud or wilful misconduct, personal injury and death is not within the scope of any limitation or exclusionary provision or notice of this CPS, any Subscriber Agreement or certificate issued by HKPost and is not limited or excluded by any such provision or notice.

#### **2.2.3.7 Certificate Notices, Limitations and Reliance Limit**

g-Cert certificates issued by HKPost shall be deemed to have contained the following Reliance Limit and/or limitation of liability notice:

*"The Postmaster General acting by the officers of the Hong Kong Post Office and the Contractor has issued this certificate as a recognized CA under the Electronic Transactions Ordinance (Cap. 553) upon the terms and conditions set out in the Postmaster General's Certification Practice Statement (CPS) that applies to this certificate.*

*Accordingly, any person, before relying upon this certificate should read the CPS that applies to g-Cert certificates which may be read on the HKPost CA*

---

web site at <http://www.eCert.gov.hk>. The laws of Hong Kong SAR apply to this certificate and Relying Parties must submit any dispute or issue arising as a result of their reliance upon this certificate to the non-exclusive jurisdiction of the Courts of Hong Kong SAR.

If you, as a Relying Party, do not accept the terms and conditions upon which this certificate is issued, then do not rely upon it.

The Postmaster General (by the Hong Kong Post Office, the Contractor, and their respective officers, employees and agents including, without limitation, the Registration Authority) issues this certificate without undertaking any responsibility or duty of care to Relying Parties save as set out in this CPS.

Relying Parties, before relying upon this certificate are responsible for:-

- a) Relying on it only when reliance is reasonable and in good faith in the light of all the circumstances known to the Relying Party at the time of reliance;
- b) Before relying upon this certificate, determining that the use of the certificate is appropriate for its purposes in corresponding Designated Applications under the CPS;
- c) Acknowledging that the Postmaster General, Hong Kong Post Office, the Contractor, CMMP, any Registration Authority and their respective officers, employees or agents do not undertake any responsibility or duty of care to Relying Parties if this g-Cert certificate is used or relied upon for any purposes other than the Designated Application of the respective Subscriber Organisation referred to in **Appendix H** of the CPS.
- d) Checking the status of this certificate on the Certificate Revocation List prior to reliance; and
- e) Performing all appropriate certificate path validation procedures.

If, despite the exercise of reasonable skill and care by the Postmaster General, the Hong Kong Post Office, the Contractor, CMMP, any Registration Authority and their respective officers, employees or agents, this certificate is in any way inaccurate or misleading, the Postmaster General, Hong Kong Post Office, the Contractor, CMMP, any Registration Authority and their respective officers, employees or agents, accept no responsibility for any loss or damage to the Relying Parties and the applicable Reliance Limit that applies to this certificate under the Ordinance in these circumstances is HK\$0.

If this certificate is in any way inaccurate or misleading and this is the result of the negligence of the Postmaster General, Hong Kong Post Office, the Contractor, CMMP, any Registration Authority or their respective officers, employees or agents, then the Postmaster General will pay a Relying Party up to HK\$200,000 in respect of proved loss caused by reasonable reliance upon such inaccurate or misleading matters in this certificate where such losses are not and do not include (1) any direct or indirect loss of profits or revenue, loss or injury to reputation or goodwill, loss of any opportunity or chance, loss of projects, or the loss or loss of use of any data, equipment or software or (2) any indirect, consequential or incidental loss or damage even if, in respect of the latter, HKPost has been advised of the likelihood of such loss or damage in advance. The applicable Reliance Limit that applies to this certificate under the Ordinance in these circumstances is HK\$200,000 and in all cases in relation to categories of loss (1) and (2), is HK\$0.

None of the Hong Kong Post Office, the Contractor, CMMP, any Registration Authority nor any of their respective officers, employees or agents of the Hong Kong Post Office undertakes any duty of care to Relying Parties in any circumstances in relation to this certificate.

---

#### Time Limit For Making Claims

*Any Relying Party who wishes to make any legal claim upon the Postmaster General arising out of or in any way connected with the issuance, revocation or publication of this g-Cert must do so within one year of the date upon which that Relying Party becomes aware of any facts giving rise to the right to make such a claim or (if earlier) within one year of the date when, with the exercise of reasonable diligence, they could have become aware of such facts. For the avoidance of doubt, ignorance of the legal significance of those facts is immaterial. After the expiration of this one-year time limit the claim shall be waived and absolutely barred.*

*If this certificate contains any intentional or reckless misrepresentation by the Postmaster General, the Hong Kong Post Office, the Contractor, CMMP, any Registration Authority and their officers, employees or agents, this certificate does not impose any limit upon their liability to Relying Parties who suffer loss in consequence of reasonable reliance upon such misrepresentations in this certificate.*

*The limits of liability contained herein do not apply in the (unlikely) event of liability for personal injury or death.”*

#### **2.2.4 HKPost's Liability for Received but Defective Certificates**

Notwithstanding the limitation of HKPost's liability set out above, if, after receiving the certificate, a Subscriber finds that, in respect of g-Cert certificates, because of any error in the Private Key or Public Key of the certificate, no transactions contemplated by the PKI can be completed properly or at all, and that Subscriber notifies HKPost of this immediately to permit the certificate to be revoked and (if desired) re-issued, then, if such notification has occurred within 3 months after receiving the certificate and the Subscriber no longer wants a certificate, HKPost, on being satisfied of the existence of any such error will refund the fee paid. If the Subscriber waits longer than 3 months after receiving the certificate before notifying HKPost of any such error, the fee paid will not be refunded as of right, but only at the discretion of HKPost.

#### **2.2.5 Assignment by Subscriber**

Subscribers shall not assign their rights under Subscriber Agreement or Certificates. Any attempted assignment will be void.

#### **2.2.6 Authority to Make Representations**

Except as expressly authorised by HKPost, no agent or employee of the Hong Kong Post Office, the Contractor or of any RA has authority to make any representations on behalf of HKPost as to the meaning or interpretation of this CPS.

#### **2.2.7 Variation**

HKPost has the right to vary this CPS without notice (See Section 8). Subscriber Agreement cannot be varied, amended or changed except to comply with a variation or change in this CPS or with the express written consent of the Postmaster General.

#### **2.2.8 Retention of Title**

The physical, copyright, and intellectual property rights to all Information on the certificate issued under this CPS are and will remain vested in HKPost.

#### **2.2.9 Conflict of Provisions**

In the event of a conflict between this CPS and the Subscriber Agreement, other rules, guidelines, or contracts, the Subscriber, Relying Parties and HKPost shall be bound by the provisions of this CPS, except to the extent that the provisions are prohibited by law.

#### **2.2.10 Fiduciary Relationships**

None of HKPost, the Contractor, CMMP nor any RA is an agent, fiduciary, trustee or other representative of the Subscribers or Relying Parties at any time. Subscribers and Relying

---

Parties have no authority to bind HKPost, the Contractor, CMMP or any RA, by contract or otherwise, to any obligation as an agent, fiduciary, trustee or other representative of the Subscribers or Relying Parties. In particular for a request, "Requester" of CMMP of the Subscriber must not act as "Business Administrator" of CMMP (i.e. member of RA); and "Business Administrator" of CMMP (i.e. member of RA) must not act as "Requester" of CMMP of the Subscriber.

#### **2.2.11 Cross Certification**

HKPost reserves the right in all instances to define and determine suitable grounds for cross-certification with another CA.

#### **2.2.12 Financial Responsibility**

An insurance policy is in place to cover the potential or actual liabilities and claims against Reliance Limit on the certificates.

### **2.3 Interpretation and Enforcement (Governing Law)**

#### **2.3.1 Governing Law**

The laws of Hong Kong SAR govern this CPS. Subscribers and Relying Parties agree to submit to the non-exclusive jurisdiction of the Courts of Hong Kong SAR.

#### **2.3.2 Severability, Survival, Merger, and Notice**

If any provision of this CPS is declared or found to be illegal, unenforceable, or void, then any offending words in it will be deleted to the extent necessary to make it legal and enforceable while preserving its intent. The unenforceability of any provision of this CPS will not impair the enforceability of any other provision of this CPS.

#### **2.3.3 Dispute Resolution Procedures**

The decisions of HKPost pertaining to matters within the scope of this CPS are final. Any claims should be submitted to HKPost at the following address:

Hongkong Post Certification Authority  
Kowloon East Post Office Box 68777  
Email: [enquiry@eCert.gov.hk](mailto:enquiry@eCert.gov.hk)

#### **2.3.4 Interpretation**

Where there is a conflict of interpretation of wording between the English and Chinese versions of this CPS, the English version shall prevail.

### **2.4 Subscription Fees**

The subscription fee shall be paid by g-Cert subscribers unless waived by HKPost. For details of the fees charged in respect of g-Cert certificates, please see **Appendix H**. HKPost reserves its absolute right to review and determine the subscription fee from time to time and will notify the Subscribers and the public at the HKPost web site <http://www.eCert.gov.hk>. Under the terms of the Contract between HKPost and Certizen Limited, Certizen Limited is entitled to receive subscription fees as specified in **Appendix H** from g-Cert subscribers.

### **2.5 Publication and Repository**

Under the Ordinance, HKPost maintains a Repository that contains a list of accepted certificates issued under this CPS, the current certificate revocation list, the HKPost Public Key, a copy of this CPS, and other Information related to g-Cert certificates which reference this CPS. The Repository is available on a substantially 24 hours per day, 7 days per week basis, subject to scheduled maintenance of an average of 2 hours per week and any emergency maintenance. HKPost promptly publishes each certificate accepted by and issued to the Subscriber under this CPS in the Repository. The HKPost Repository can be accessed at URLs as follows:-

<http://www.eCert.gov.hk>

---

<ldap://ldap1.eCert.gov.hk>

or alternatively

<http://www.hongkongpost.gov.hk>

<ldap://ldap1.hongkongpost.gov.hk>

### **2.5.1 Certificate Repository Controls**

The Repository is maintained in a location that is viewable on-line and is protected from unauthorised access.

### **2.5.2 Certificate Repository Access Requirements**

Only persons authorised by HKPost have access to the Repository to update and modify the contents.

### **2.5.3 Certificate Repository Update Cycle**

The Repository is updated promptly after each certificate is accepted by and issued to the Subscriber and any other applicable events such as update of certificate revocation list.

### **2.5.4 Permitted Use of Information Contained in the Repository**

The Information, including any personal data, contained in the Repository is published under the Ordinance and for the purpose of facilitating the conduct of lawful electronic transactions or communications.

## **2.6 Compliance Assessment**

Compliance assessments conducted on the HKPost's system of issuing, revoking and publishing g-Cert certificates to determine if this CPS is being properly followed are performed at least once in every 12 months in accordance with the requirements set out in the Ordinance and the Code of Practice for Recognized Certification Authorities.

## **2.7 Confidentiality**

HKPost will ensure that the restrictions in this subsection will be adhered to by itself and any persons of HKPost, the Contractor, RAs and any HKPost subcontractors who have access to any record, book, register, correspondence, information, document or other material in performing tasks related to HKPost's system of issuing, revoking and publishing g-Cert certificates shall not disclose or permit or suffer to be disclosed any information relating to another person as contained in such record, book, register, correspondence, information, document or other material to any other person. Information about Subscribers that is submitted as part of an application for an g-Cert certificate under this CPS will be used only for the purposes collected and is kept confidential except to the extent necessary for HKPost, the Contractor, CMMP or RAs to perform HKPost's obligations under this CPS. Such Information will not be released without the prior consent of the Subscriber except when required by a court-issued subpoena or order, or when otherwise required by the laws of Hong Kong SAR. HKPost is specifically precluded from releasing lists of Subscribers or Subscriber Information (except for the release of compiled data which is not traceable to an individual Subscriber) unless required by a court-issued subpoena or order, or when otherwise required by the laws of Hong Kong SAR.



---

### 3. IDENTIFICATION AND AUTHENTICATION

#### 3.1 Initial Application

All Applicants for g-Cert shall submit requests for certificate via CMMP.

A Requester should login the CMMP, complete and submit a request of certificate application or renewal in the CMMP for an Applicant of g-Cert (Individual) or a functional unit of g-Cert (Functional Unit). If required by the Business Administrator, the Requester should also provide documentary evidence to a Business Administrator for identity verification of the Applicant.

Business Administrator should login the CMMP, verify the identity of the Applicant and approve the request. The Business Administrator should verify the documentary evidence of the Applicant of g-Cert (Individual) submitted by the Requester.

CMMP shall proceed to generate Private Key and Public Key for the Applicant or the functional unit without human intervention in CMMP's Hardware Security Module (HSM) system hosted in a secure environment within the Government premises.

The CMMP shall generate the Certificate Signing Request (CSR) containing the Public Key in a secure environment.

The CMMP shall prepare a system interface file, containing the application data and the generated CSR. The system interface file shall be submitted to HKPCA through dedicated and secured network connections with TLS protocol.

HKPCA will generate the certificate and the issued g-Cert will then be transmitted to the CMMP in a secure manner in online mode, or securely collected by CMMP in batch mode.

The CMMP shall receive system interface file containing the g-Cert from HKPCA through dedicated and secured network connections with TLS protocol.

The CMMP shall link the g-Cert to the CMMP User or CMMP functional unit and notify all CMMP Users who have been involved in the process the completion of the request.

HKPCA will publish the g-Cert in the HKPCA Repository.

#### 3.1.1 Types of Names

##### 3.1.1.1 g-Cert (Individual) certificates

The Subscriber Organisation for a g-Cert (Individual) certificate is identified in the certificate with a Subject Name (referred to in **Appendix B**) consisting of:

- a) The CMMP User's identifier and/or name as it appears on the documents to verify its identity;
- b) The Subscriber Organisation's name as it is registered with the appropriate Hong Kong Government Department whose existence is recognized by the laws of Hong Kong SAR, or the official name of that Bureau or Department or Office where the Subscriber Organisation is a Bureau or Department or Office of the Government of Hong Kong SAR..

##### 3.1.1.2 g-Cert (Functional Unit) certificates

The Subscriber Organisation for a g-Cert (Functional Unit) certificate is identified in the certificate with a Subject Name (referred to in **Appendix B**) consisting of:

- a) The Subscriber Organisation's name as it is registered with the appropriate Hong Kong Government Department whose existence is recognized by the laws of Hong Kong SAR, or the official name of that Bureau or Department or Office where the Subscriber Organisation is a Bureau or Department of Office of the Government of Hong Kong SAR;

---

b) The name of Functional Unit of the Subscriber Organisation.

### **3.1.1.3 The Requester, Business Administrator, B/D/O Administrator in CMMP**

Although the Requester, Business Administrator and B/D/O Administrator of the Subscriber Organisation, who is assigned by B/D/O, is responsible for administering on behalf of the Subscriber Organisation the application for an g-Cert certificate in CMMP, that person will not be identified in the g-Cert certificate.

### **3.1.2 Need for Names to be Meaningful**

All names must be meaningful using commonly understood semantics to determine the identity of the Subscriber.

### **3.1.3 Rules for Interpreting Various Names**

The types of names of the Subscriber (Subject Name) to be included in the g-Cert certificates are described in Section 3.1.1. **Appendix B** should be referred to for interpretation of the Subject Name of the g-Cert certificates.

### **3.1.4 Name Uniqueness**

The Subject Name (referred to in **Appendix B**) shall be unambiguous and unique to a Subscriber. However, this CPS does not require that a specific component or element of a name be unique or unambiguous by itself.

### **3.1.5 Name Claim Dispute Resolution Procedure**

The decisions of HKPost in matters concerning name disputes are discretionary and final.

### **3.1.6 Infringement and Violation of Trademarks**

Applicants and Subscribers warrant (promise) to HKPost and represent to CMMP and Contractors and Relying Parties that the Information supplied by them in the g-Cert application process does not infringe or violate in any way the trademarks, service marks, trade name, company name, or any other intellectual property rights of any third party.

### **3.1.7 Method to Prove Possession of the Private Key**

CMMP carries out the key generation service on behalf of the Subscriber in a hardware security module ("HSM") hosted in a Trustworthy System and environment within the CMMP's premises to ensure that the Private Key is not tampered with, and generates and transmits the Certificate Signing Request (CSR) containing the Public Key to HKPost. HKPost will generate the Certificate within HKPost's premises. The issued Certificate in which the Applicant's Public Key is included will be delivered to the Applicant in a secure manner.

### **3.1.8 Authentication of Identity of g-Cert (Individual) Applicant**

3.1.8.1 For different staff categories as mentioned in 1.2.4.1 of this CPS, the Business Administrator role can be further defined into Business Administrator for different staff categories to take care of the different verification requirements:

<b>Staff Category</b>	<b>Description</b>
Civil servant or contract staff employed by government direct	The "Verify" step shall be conducted by a CMMP User who has the Business Administrator role for this staff category. This person is responsible to check the certificate holder's documents which contain the documentary evidence* against the personnel record kept in the Government.



Agency or body-shop contract staff (e.g. T-contract IT staff)	The "Verify" step shall be conducted by a CMMP User who has the Business Administrator role for this staff category. This person is responsible to check the certificate holder's documents which contain the documentary evidence* against the record kept in the agency or body-shop contract or related documents held by the B/D/O.
Resident officer engaged under contract arrangement	The "Verify" step shall be conducted by a CMMP User who has the Business Administrator role for this staff category. This person is responsible for checking the certificate holder's documents which contain the documentary evidence* against the record kept in the contract, agreement, order or other kind of legal documents used in the business relationship between the B/D/O and the outsourcer that can verify the identity of the certificate holder.

\* documentary evidence can be Hong Kong Identity (HKID) Card, Passport information or other documents that B/D/O has been using for checking of identity

In case of doubt, HKPost may decline the g-Cert application.

## 3.2 Certificate Renewal

### 3.2.1 g-Cert certificates

CMMP will notify Subscribers to renew the g-Cert certificates prior to the expiry of the certificates. The certificates can be renewed before expiry of their validity at the request of the Subscriber and the discretion of HKPost. HKPost will not perform renewal of expired or revoked certificates.

There is no automatic renewal of an g-Cert certificate. The Requester of the Subscriber Organisation will need to submit the renewal request electronically via CMMP to HKPost and pay for appropriate subscription fees. The process of "Authentication of identity of g-Cert Applicant" as described under Section 3.1.8 will be conducted as if a new application is received.

Upon renewal, the terms and conditions of the original Subscriber Agreement will apply to the renewed certificate, except insofar as such terms are incompatible with the terms of the CPS current at the date of renewal. In the case of such incompatibility the terms of the current CPS will prevail. Applicants for renewal should read the terms of the CPS current at the date of renewal before submitting the requests for renewal via CMMP.

### 3.2.2 Validity Period of Renewed g-Cert

At the discretion of HKPost, the new g-Cert certificate to be issued to the Subscriber may be valid as from the date the new certificate is generated and expired on the date that is the new certificate lifespan after the expiry date of the old certificate being renewed. Accordingly, the new g-Cert certificate may have a validity period of more than the certificate lifespan specified in Section 1.2.5 but no more than such certificate lifespan and one month.

---

## 4. OPERATIONAL REQUIREMENTS

### 4.1 Certificate Application

4.1.1 Applicants for g-Cert certificates under this CPS must complete and submit an application in CMMP. The CMMP will complete and transmit the application to the HKPost.

4.1.2 By submitting an g-Cert request electronically via CMMP, the Applicant authorises the publication of the g-Cert to any other person or in the Repository and accepts the g-Cert to be issued to the Applicant.

4.1.3 The documentation required for proving the identity of the Applicant is stipulated in Section 3.1.8 (Authentication of Identity of g-Cert Applicant) of this CPS.

### 4.2 Certificate Issuance

4.2.1 Following the identity verification process, CMMP will carry out the central key generation service on behalf of the Subscriber in a hardware security module (“HSM”) hosted in a Trustworthy System and environment within the CMMP’s premises to ensure that the Private Key is not tampered with, and generate and transmit the Certificate Signing Request (CSR) containing the Public Key to HKPost. HKPost will generate the g-Cert certificates (with the Public Key included) of the respective CMMP Users / CMMP Functional Unit in a Trustworthy System and environment within HKPost’s premises.

4.2.2 The g-Cert will then be delivered electronically to the CMMP User / CMMP Functional Unit via CMMP.

4.2.3 The CMMP agrees that it is fully accountable for the safe custody of the Private Key upon receipt of the g-Cert certificate and agree that they will be responsible for any consequences under any circumstances for the compromise of the Private Key.

4.2.4 All Private Keys stored in the HSM hosted in a Trustworthy System and environment within the CMMP’s premises are in an encrypted form. Proper security controls are in place to guard against unauthorised access to and disclosure of the encrypted Private Keys.

### 4.3 Publication of g-Cert

Under the Ordinance, HKPost’s system will promptly publish the accepted and issued g-Cert in the Repository (see Section 2.5). Applicants can either verify the information on the Certificate by browsing the Certificate file or through HKPost CA Repository. Subscriber Organisations should notify HKPost immediately of any incorrect information of the Certificate.

### 4.4 Certificate Revocation

#### 4.4.1 Circumstances for Revocation

The compromise of a HKPost Private Key will result in prompt revocation of the certificates issued under that Private Key. Procedures stipulated in the HKPost key compromise plan will be exercised to facilitate rapid revocation of all Subscriber certificates in the event of compromise of the HKPost Private Keys (see Section 4.8.2).

Each Subscriber may make a request to revoke the certificate for which they are responsible under a Subscriber Agreement at any time for any reason by following the revocation procedure set out in this CPS.

Each Subscriber **MUST** apply to B/D/O for the revocation of the certificate in accordance with the revocation procedures in this CPS **immediately after the Subscriber's Private Key, or the media containing the Private Key corresponding to the Public Key contained in an g-Cert has been, or is suspected of having been, compromised or any change in the**

---

**Information in the certificate provided by the Subscriber or the Role of the CMMP User in the corresponding g-Cert is changed or becomes invalid (see also Section 2.1.5(e)).**

HKPost and B/D/O, on behalf of HKPost, may revoke a certificate and will notify the Subscriber by updating the certificate revocation list and by email, if a contact email address is available, of such revocation ("Notice of Revocation") in accordance with the procedures in the CPS whenever it:-

- a) knows or reasonably suspects that a Subscriber's Private Key has been compromised;
- b) knows or reasonably suspects that any details upon a certificate are not true or have become untrue or that the certificate is otherwise unreliable;
- c) determines that a certificate was not properly issued in accordance with the CPS;
- d) determines that the Subscriber had failed to meet any of the obligations set out in this CPS or the Subscriber Agreement;
- e) is required to do so by any regulation, or law applicable to the certificate;
- f) determines that the Subscriber has failed to pay the subscription fee;
- g) knows or has reasonable cause to believe that the CMMP User identified in an g-Cert certificate has ceased to be an CMMP User of the Subscriber Organisation;
- h) knows or has reasonable cause to believe that the CMMP User identified in an g-Cert certificate has ceased to possess the Role in the Subscriber Organisation;
- i) knows or has reasonable cause to believe that the Subscriber or CMMP User whose details appear on the g-Cert certificate that:-
  - (i) the Subscriber is in liquidation, or a winding up order relating to the Subscriber has been made by any Court of competent jurisdiction;
  - (ii) the Subscriber has entered into a composition or a scheme of arrangement or a voluntary arrangement within the meaning of the Bankruptcy Ordinance (Cap.6) within 5 years preceding the date of intended revocation;
  - (iii) the CMMP User has been convicted of an offence for which it was necessary to find that that person had acted fraudulently, corruptly or dishonestly or committed an offence under the Electronic Transactions Ordinance;
  - (iv) a receiver or administrator has been appointed over any part of the Subscriber's assets within 5 years preceding the date of revocation; or
  - (v) the Subscriber's existence cannot be attested.

#### **4.4.2 Revocation Request Procedure**

A Requester should login the CMMP, complete and submit a request of certificate revocation in the CMMP for an Applicant of g-Cert (Individual) or a functional unit of g-Cert (Functional Unit).

Business Administrator should login the CMMP and approve the request within a pre-defined number of working day(s) set by B/D/O.

The CMMP shall prepare a system interface file, containing the certificate revocation data. The interface file shall be submitted to HKPCA through dedicated and secured network connections with TLS protocol.

HKPCA will revoke the certificate, which terminates the validity of the certificate permanently. The information of all Certificates that have been revoked will be included in the Certificate Revocation List. HKPCA will publish the Certificate Revocation List in accordance with the schedule.

The CMMP shall receive system interface file, containing result of certificate revocation from HKPCA through dedicated and secured network connections with TLS protocol. Hence, the

---

CMMP shall inactivate the corresponding g-Cert and notify all CMMP Users who have been involved in the process the completion of the request.

The information of all Certificates that have been revoked, including the reason code identifying the reason for the certificate revocation, will be included in the Certificate Revocation List (see Section 7.2).

#### 4.4.3 Service Pledge & Certificate Revocation List Update

- a) HKPost will exercise reasonable endeavours to ensure that within 2 working days of (1) receiving a revocation request from B/D/O or (2) in the absence of such a request, the decision by HKPost or the notification from B/D/O of a decision by B/D/O on HKPost's behalf, to revoke the certificate, the revocation is posted to the Certificate Revocation List. However, a Certificate Revocation List is not immediately published in the directory for access by the public following each certificate revocation. Only when the next Certificate Revocation List is updated and published will it reflect the revoked status of the certificate. Certificate Revocation Lists are published daily and are archived for at least 7 years.

For the avoidance of doubt, all Saturdays, Sundays, public holidays and for all weekdays on which a tropical cyclone and rainstorm warning signal is hoisted, are not working days for the purpose of this section 4.4.3(a).

HKPost will exercise reasonable endeavours to notify relevant Subscribers by updating the certificate revocation list and by email, if a contact email address is available, within two working days following the revocation.

- b) Subscribers must not use a certificate in a transaction on becoming aware of any ground upon which HKPost or B/D/O could revoke it under the terms of the CPS and must not use it in a transaction after the Subscriber has made a revocation request or been notified of the intention of HKPost or B/D/O to revoke the certificate. HKPost and B/D/O shall be under no liability to Subscribers or Relying Parties in respect of any such transactions if, despite the foregoing of this sub-section, they do use the certificate in a transaction.
- c) Further, upon becoming so aware of any ground upon which HKPost or RA of B/D/O could revoke the certificate, or upon making a revocation request or upon being notified by HKPost or B/D/O of its intention to revoke the certificate, Subscribers must immediately notify Relying Parties in any transaction that remains to be completed at the time, that the certificate used in that transaction is liable to be revoked (either by HKPost, B/D/O or the Contractor or at the Subscriber's request) and state in clear terms that, as this is the case, the Relying Parties should not rely upon the certificate in respect of the transaction. HKPost and B/D/O shall be under no liability in respect of such transactions to Subscribers who fail to notify Relying Parties, and under no liability to Relying Parties who receive such a notification from Subscribers but complete the transaction despite such notification.

HKPost and B/D/O shall be under no liability to Relying Parties in respect of the transactions in the period between HKPost's or B/D/O's decision to revoke a certificate (either in response to a request or otherwise) and the appearance of the revocation status on the Certificate Revocation List, unless HKPost or the RA of B/D/O has failed to exercise reasonable skill and care and the Subscriber has failed to notify the Relying Party as required by these provisions. Any such liability is limited as set out elsewhere in this CPS. In no circumstances does B/D/O itself undertake a separate duty of care to Relying Parties (the B/D/O are simply discharging HKPost's duty of care), and accordingly, even if negligent, B/D/O itself cannot be held liable to Relying Parties.

- d) The Certificate Revocation List (CRL) is updated and published in accordance with the schedule and format specified in **Appendix C**.

- 
- e) HKPost's policy concerning the situation where a Relying Party is temporarily unable to obtain Information on revoked certificate is stipulated in Section 2.1.6 (Relying Party Obligations) and Section 2.2.1 (Reasonable Skill and Care) of this CPS.

#### **4.4.4 Effect of Revocation**

Revocation terminates a certificate as of the time that HKPost posts the revocation status to the Certificate Revocation List.

### **4.5 Computer Security Audit Procedures**

#### **4.5.1 Types of Events Recorded**

Significant security events in the HKPost CA system are manually or automatically recorded to protected audit trail files. These events include, but are not limited to, the following examples:

- Suspicious network activity
- Repeated failed access attempts
- Events related to equipment and software installation, modification, and configuration of the CA operation
- Privileged accesses to all CA components
- Regular certificate management operations including: -
  - Certificate revocation requests
  - Actual issuance and revocation of certificates
  - Certificate renewals
  - Updates to repositories
  - CRL generation and posting
  - CA Key rollover
  - Backups
  - Emergency key recoveries

#### **4.5.2 Frequency of Processing Log**

Audit logs are processed and reviewed on a daily basis to provide audit trails of actions, transactions and processes of the HKPost CA.

#### **4.5.3 Retention Period for Audit Logs**

Archived audit log files are retained for 7 years.

#### **4.5.4 Protection of Audit Logs**

HKPost implements multi-person control on processing audit logs which are afforded adequate protection against accidental damage or deliberate modifications.

#### **4.5.5 Audit Log Backup Procedures**

Adequate backup of audit logs is performed on a daily basis under pre-defined procedures including multi-person control. The backups will be stored off-line and are afforded adequate protection against theft, destruction and media degradation. The backups will be retained for not less than one week before they are archived.

#### **4.5.6 Audit Information Collection System**

HKPost CA audit records and files are under the control of an automated audit collection system that cannot be modified by any application, program, or other system function. Any modification to the audit collection system is itself an auditable event.

#### **4.5.7 Notification of Event-Causing Subject to HKPost**

HKPost has an automated process in place to report critical audited events to the appropriate person or system.

#### **4.5.8 Vulnerability Assessments**

Vulnerability assessments are conducted as part of HKPost's CA security procedures.

---

## 4.6 Records Archival

### 4.6.1 Types of Records Archived

HKPost shall ensure that archived Records are detailed enough to establish the validity of a certificate and the proper operation of it in the past. The following data are archived by (or on behalf of) HKPost:

- System equipment configuration files;
- Results of assessments and/or review for accreditation of the equipment (if conducted);
- Certification Practice Statement and its modifications or updates;
- Contractual agreements to which HKPost is bound;
- All certificates and CRLs as issued or published;
- Periodic event logs; and
- Other data necessary for verifying archive contents.

### 4.6.2 Archive Retention Period

Key and certificate Information is securely maintained for at least 7 years. Audit trail files are maintained in the CA systems as deemed appropriate by HKPost.

### 4.6.3 Archive Protection

Archived media maintained by HKPost is protected from unauthorised access by various physical and cryptographic means. Protective measures are used to protect the archiving media from environmental threats such as temperature, humidity and magnetism.

### 4.6.4 Archive Backup Procedures

Backup copies of the archives will be created and maintained when necessary.

### 4.6.5 Timestamping

Archived Information is marked with the date at which the archive item was created. HKPost utilizes controls to prevent the unauthorised manipulation of the system clocks.

## 4.7 Key Changeover

The lifespan of the HKPost CA and signing root key and certificates created by HKPost (See **Appendix G**) for the purpose of certifying certificates issued under this CPS is no more than 25 years. HKPost CA keys and certificates will be renewed at least 3 months before their certificates expire. Upon renewal of a root key, the associated root certificate will be published in HKPost web site <http://www.eCert.gov.hk> for public access. The original root keys will be kept for a minimum period as specified in Section 4.6.2 for verification of any signatures generated by the original root keys.

## 4.8 Disaster Recovery and Key Compromise Plans

### 4.8.1 Disaster Recovery Plan

A managed process, including daily backup of essential business information and CA system data and proper backup of CA system software, is in place for maintaining business continuity plans to protect critical business processes from the effect of major failures or disasters. Business continuity plans exist to enable the complete recovery of all HKPost CA services. This incorporates a tested independent disaster recovery site which is currently located at least 10km from the primary CA operational site within the territory of Hong Kong Special Administrative Region. The business continuity plans are reviewed and exercised annually.

HKPost will promptly notify the Government Chief Information Officer and make public announcement of the switchover of operation from the production site to the disaster recovery site as a result of major failures or disasters.

During the period of time following a disaster and before a secure environment is re-established:-



- 
- a) Sensitive material or equipment will be locked up safely in the facility;
  - b) Sensitive material or equipment will be removed from the facility if it is not possible to lock them up safely in the facility or if there is a risk of damage to the material or equipment, and such material or equipment will be locked up in other temporary facilities; and
  - c) Access control will be enforced at all entrances and exits of the facility to protect the facility from theft and unauthorised access.

#### **4.8.2 Key Compromise Plan**

Formal procedures of handling key compromise are included in the business continuity plans and are reviewed and exercised annually.

HKPost will promptly notify the Government Chief Information Officer and make public announcement if a HKPost Private Key for the issuance of g-Cert certificates under this CPS has been compromised. The compromise of a HKPost Private Key will result in prompt revocation of the certificates issued under that Private Key and the issuance of new and replacement certificates.

#### **4.8.3 Key Replacement**

In the event of key compromise or disaster where a HKPost Private Key for the issuance of g-Cert certificates under this CPS has been compromised or corrupted and cannot be recovered, HKPost will promptly notify the Government Chief Information Officer and make a public announcement as to which certificates have been revoked, and how the new HKPost Public Key is provided to Subscribers, and how Subscribers are re-issued with new certificates.

#### **4.9 CA Termination**

In the event that HKPost ceases to operate as a CA, notification to the Government Chief Information Officer and public announcement will be made in accordance with the procedures set out in the HKPost termination plan. Upon termination of service, HKPost will properly archive the CA Records including certificates issued, root certificates, Certification Practice Statements and Certificate Revocation Lists for at least 7 years after the date of service termination.

#### **4.10 RA of B/D/O Termination**

In the event that the RA of B/D/O is terminated by HKPost or under CA termination (see Section 4.9) or the authority of RA of B/D/O is withdrawn, the g-Cert certificates applied through the RA of B/D/O in CMMP will remain in effect in accordance with their terms and validity.



---

## 5. PHYSICAL, PROCEDURAL AND PERSONNEL SECURITY CONTROLS

### 5.1 Physical Security

#### 5.1.1 Site Location and Construction

The HKPost CA operation is located in a site that affords commercially reasonable physical security. During construction of the site, HKPost took appropriate precautions to prepare the site for CA operations.

#### 5.1.2 Access Controls

HKPost has implemented commercially reasonable physical security controls that limit access to the hardware and software (including the CA server, workstations, and any external cryptographic hardware modules or tokens under HKPost's control) used in connection with providing the HKPost CA services. Access to such hardware and software is limited to those personnel performing in a trusted role as described in Section 5.2.1 of this CPS. Access is controlled and manually or electronically monitored for unauthorised intrusion at all times.

#### 5.1.3 Power and Air Conditioning

Power and air conditioning resources available to the CA facility include dedicated air-conditioning system, uninterruptible power supply (UPS) system and a back-up independent power generator to provide power in the event of the failure of the city power system.

#### 5.1.4 Natural Disasters

The CA facility is protected to the extent reasonably possible from natural disasters.

#### 5.1.5 Fire Prevention and Protection

The CA facility has a fire prevention plan and suppression system in place.

#### 5.1.6 Media Storage

Media storage and disposition processes have been developed and are in place.

#### 5.1.7 Off-site Backup

Adequate backups of the HKPost CA system data will be stored off-site and are afforded adequate protection against theft, destruction and media degradation (See also Section 4.8.1)

#### 5.1.8 Protection of Paper Documents

Documentation evidence on the verification of identity of the applicants are maintained by B/D/Os in a secure fashion. Only authorised personnel are permitted access to the paper records.

### 5.2 Procedural Controls

#### 5.2.1 Trusted Role

Employees, contractors, and consultants of HKPost, of the Contractor and of RAs (collectively "Personnel") that have access to or control of cryptographic or other operations that may materially affect the issuance, use, or revocation of certificates, including access to restricted operations of HKPost's CA database, are considered to be serving in a trusted role. Such Personnel include, but are not limited to, system administration personnel, operators, engineering personnel, and executives who are assigned to oversee HKPost's CA operation.

Procedures are established, documented and implemented for all trusted roles in relation to HKPost g-Cert services. The procedural integrity is maintained by enforcing:

- different levels of physical and systems access control based on role and responsibility, and
- segregation of duties.

#### 5.2.2 Transfer of Document and Data between HKPost, Contractors, CMMP and RAs

All documents and data transmitted between HKPost, Contractors, CMMP and RAs are delivered in a control and secure manner using a protocol prescribed by HKPost from time to

---

time.

### **5.2.3 Annual Assessment**

An annual assessment is undertaken to confirm compliance with policy and procedural controls (see Section 2.6).

## **5.3 Personnel Controls**

### **5.3.1 Background and Qualifications**

HKPost and the Contractor follow personnel and management policies that provide reasonable assurance of the trustworthiness and competence of such personnel and that of RAs, including employees, contractors and consultants and of the satisfactory performance of their duties in a manner consistent with this CPS.

### **5.3.2 Background Investigation**

HKPost conducts and/or requires the Contractor, CMMP and RAs to conduct investigations of personnel who serve in trusted roles (prior to their employment and periodically thereafter as necessary) to verify such employees' trustworthiness and competence in accordance with the requirements of this CPS. Personnel who fail an initial or periodic investigation are not permitted to serve or to continue to serve in a trusted role.

### **5.3.3 Training Requirements**

HKPost personnel and those of the Contractor's, CMMP's and of RA's have received the initial training needed to perform their duties. HKPost and the Contractor also provide ongoing training as necessary to enable their respective personnel to remain current in required skills.

### **5.3.4 Documentation Supplied To Personnel**

HKPost personnel and those of the Contractor's, CMMP's and of RA's receive comprehensive user manuals detailing the procedures for certificate creation, issuance, updating, renewal, and revocation, and other software functionality relative to their role.

---

## 6. TECHNICAL SECURITY CONTROLS

This Section is to describe the technical measures established by HKPost to specifically protect its cryptographic keys and associated data. Control of HKPost CA keys is implemented through physical security and secure key storage. The HKPost CA keys are generated, stored, used and destructed only within a tamper-proof hardware device, which is under multi-person access control.

### 6.1 Key Pair Generation and Installation

#### 6.1.1 Key Pair Generation

Key pairs for HKPost are generated through a procedure such that the Private Key cannot be accessed by anyone other than the CMMP User of the Private Key unless there is some compromise of the procedure by the CMMP User. HKPost generates the root key pairs for issuing certificates that conform to this CPS.

Key pairs for Applicants/Subscribers are generated in a hardware security module (“HSM”) hosted in a Trustworthy System and environment within the CMMP’s premises to ensure that the Private Key is not tampered with.

#### 6.1.2 Subscriber Public Key Delivery to Certificate Issuer

Key pairs for g-Cert will be generated in HSM by CMMP on behalf of the Applicant/Subscriber. Delivery of Subscriber’s Public Key to HKPost is required together with the Certificate Signing Request (CSR) for generation of Certificate. HKPost uses a method designed to ensure that:

- The Public Key is not changed during transit; and
- The sender possesses the Private Key that corresponds to the transferred Public Key.

#### 6.1.3 Public Key Delivery to Relying Parties

The Public Key of each HKPost key pair used for the CA’s Digital Signatures is available on-line at <http://www.eCert.gov.hk>. HKPost utilizes protection to prevent alteration of those keys.

#### 6.1.4 Key Sizes

The HKPost signing key pair is 2048-bit RSA. Subscriber key pairs for g-Cert certificates are 2048-bit RSA.

#### 6.1.5 Standards for Cryptographic Module

Signing key generation, storage, and signing operations performed by HKPost are conducted within a hardware cryptographic module.

#### 6.1.6 Key Usage Purposes

Keys used in g-Cert certificates are only used for Digital Signatures and conducting enciphered electronic communications in the Designated Applications for the corresponding g-Cert as specified in **Appendix H**. HKPost Root Key (the key used to create or issue certificates that conform to this CPS) is used only for signing (a) certificates and (b) Certificate Revocation Lists.

### 6.2 Private Key Protection

#### 6.2.1 Standards for Cryptographic Module

HKPost Private Keys are created in a crypto module validated to at least FIPS 140-1 Level 3.

#### 6.2.2 Private Key Multi-Person Control

HKPost Private Keys are stored in tamper-proof hardware cryptographic devices. HKPost implements multi-person control over the activation, usage, deactivation of HKPost Private Keys.

#### 6.2.3 Private Key Escrow

No private key escrow process is planned for HKPost Private Keys used by HKPost. For backup of HKPost Private Keys, see Section 6.2.4 below.

---

#### **6.2.4 Backup of HKPost Private Keys**

Each HKPost Private Key is backed up by encrypting and storing it in devices which conform to FIPS 140-1 Level 2 security standard. Backup of the HKPost Private Key is performed in a manner that requires more than one person to complete. The backup Private Keys must be activated by more than one person. No other Private Keys are backed-up. All Private Keys will not be archived.

#### **6.3 Other Aspects of Key Pair Management**

HKPost CA root keys will be used for no more than the lifespan of the respective signing root key and certificates created by HKPost (see **Appendix G** and also Section 4.7). All HKPost key generation, key destruction, key storage, and certificate revocation list signing operations are performed in a hardware cryptographic module. Archival of HKPost Public Keys is performed as specified in Section 4.6.

#### **6.4 Computer Security Controls**

HKPost implements multi-person control over the life cycle of activation data such as PINs and passwords for accessing the CA systems. Security procedures are in place to prevent and detect unauthorised access, modification, or compromise of the CA systems. Such security controls are subject to compliance assessment as specified in Section 2.6.

#### **6.5 Life Cycle Technical Security Controls**

HKPost implements controls over the procedures for the procurement and development of software and hardware for HKPost CA systems. Change control procedures are in place to control and monitor all revisions and enhancements to be made to the components of such systems.

#### **6.6 Network Security Controls**

The HKPost CA systems are protected by firewalls and other access control mechanisms configured to allow only authorised access required for the CA services set forth in this CPS.

#### **6.7 Cryptographic Module Engineering Controls**

The cryptographic devices used by HKPost are rated to at least FIPS 140-1 Level 2.

---

## 7. CERTIFICATE AND CERTIFICATE REVOCATION LIST PROFILES

### 7.1 Certificate Profile

Certificates referred to in this CPS contain the Public Key used for confirming the identity of the sender of an electronic message and verifying the integrity of such messages, i.e., the Public Key used to verify a Digital Signature. All certificates referred to in this CPS are issued in the X.509 version 3 format (See **Appendix B**). A summary of the features of the g-Cert certificates is in **Appendix D**.

### 7.2 Certificate Revocation List Profile

The HKPost Certificate Revocation List is in the X.509 version 2 format (see **Appendix C**).

---

## 8. CPS ADMINISTRATION

All changes to this CPS must be approved and published by HKPost. The CPS changes will be effective upon publication by HKPost in the HKPost CA web site at <http://www.eCert.gov.hk> or in the HKPost Repository and are binding on all Applicants and Subscribers to whom certificates are issued. HKPost will notify the Government Chief Information Officer any subsequent changes to this CPS as soon as practicable. A copy of this CPS and its predecessors are available for viewing by Applicants, Subscribers and Relying Parties on the HKPost CA web site at <http://www.eCert.gov.hk>.



## Appendix A - Glossary

Unless the context otherwise requires, the following expressions have the following meanings in this CPS

**“Accept”**, in relation to a certificate

- (a) in the case of a person named or identified in the certificate as the person to whom the certificate is issued, means to –
  - (i) confirm the accuracy of the information on the person as contained in the certificate;
  - (ii) authorise the publication of the certificate to any other person or in a repository;
  - (iii) use the certificate; or
  - (iv) otherwise demonstrate the approval of the certificate; or
- (b) in the case of a person to be named or identified in the certificate as the person to whom the certificate is issued, means to –
  - (i) confirm the accuracy of the information on the person that is to be contained in the certificate;
  - (ii) authorise the publication of the certificate to any other person or in a repository; or
  - (iii) otherwise demonstrate the approval of the certificate.

**“Applicant”** means a CMMP User or a functional unit under B/D/Os who has applied for an g-Cert. Once the g-Cert is issued, the Applicant is referred to as the Subscriber.

**“Asymmetric Cryptosystem”** means a system capable of generating a secure key pair, consisting of a Private Key for generating a Digital Signature and a Public Key to verify the Digital Signature.

**“Authority Revocation List”** or **“ARL”** means a data structure that enumerates public-key certificates of Sub CAs that have been invalidated by the Root CA prior to the time at which they were scheduled to expire.

**“Business Administrator”** means a user role in CMMP responsible for verifying the identity of the Applicant (i.e. acting as a Registration Authority) and approving the requests of certificate application, renewal and revocation in the CMMP.

**“CA”** means Certification Authority.

**“Certificate”** or **“g-Cert”** means a Record which:-

- a) is issued by a Certification Authority for the purpose of supporting a Digital Signature which purports to confirm the identity or other significant characteristics of the person who holds a particular key pair;
- b) identifies the Certification Authority issuing it;
- c) names or identifies the person to whom it is issued;
- d) contains the Public Key of the person to whom it is issued; and
- e) is Signed by the Certification Authority issuing it.

**“Certification Authority”** means a person who issues a certificate to a person (who may be another-Certification Authority).

**“Certification Practice Statement”** or **“CPS”** means a statement issued by a Certification Authority to specify the practices and standards that the Certification Authority employs in issuing certificates.

**“Certificate Revocation List”** or **“CRL”** means a data structure that enumerates public-key certificates (or other kinds of certificates) that have been invalidated by their issuer prior to the

---

time at which they were scheduled to expire.

**“Certificate Signing Request” or “CSR”** means a message containing a Public Key of the Subscriber sent by the CMMP to HKPost in order to apply for a Certificate.

**“CMMP”** means the centrally managed service platform under the administration and support of OGCIO as listed in **Appendix E**, which provides the services to allow B/D/O to assign staff to act as pre-defined user roles, manage key pairs and Certificates stored in a hardware security module (“HSM”) in order to perform tasks as detailed in this CPS.

**“CMMP User”** means the B/D/Os users who are provided with an account by OGCIO to login the CMMP to access various Designated Applications.

**“Contract”** means the outsourcing contract that HKPost has awarded to the Contractor for operating and maintaining the systems and services of the HKPost CA as stipulated in this CPS on behalf of HKPost for a period from 1 April 2012 to 31 March 2018. The Contract has been subsequently extended to 31 December 2019.

**“Contractor”** means Certizen Limited, together with its Subcontractor(s), if any as listed in **Appendix F**, being an agent of HKPost CA appointed pursuant to Section 3.2 of the COP for operating and maintaining the systems and services of the HKPost CA in accordance with the terms of the Contract.

**“COP”** means the Code of Practice for Recognized Certification Authorities published by the Government Chief Information Officer under Section 33 of the Ordinance.

**“CPS”** means Certification Practice Statement.

**“Designated Application”** means, a service or system, if any, set out in **Appendix H** in respect of which g-Cert certificates of the corresponding organisation are used for.

**“Digital Signature”**, in relation to an Electronic Record, means an Electronic Signature of the signer generated by the transformation of the Electronic Record using an Asymmetric Cryptosystem and a hash function such that a person having the initial untransformed Electronic Record and the signer's Public Key can determine:-

- (a) whether the transformation was generated using the Private Key that corresponds to the signer's Public Key; and
- (b) whether the initial Electronic Record has been altered since the transformation was generated.

**“Electronic Record”** means a Record generated in digital form by an Information System, which can be

- (a) transmitted within an Information System or from one Information System to another; and
- (b) stored in an Information System or other medium.

**“Electronic Signature”** means any letters, characters, numbers or other symbols in digital form attached to or logically associated with an Electronic Record, and executed or adopted for the purpose of authenticating or approving the Electronic Record.

**“Hardware Security Module”, or “HSM”** means a hardware security device used for storage and management of Certificates and protection of key pairs from being tampered, exported or duplicated.

**“Information”** includes data, text, images, sound, computer programmes, software and databases.

**“Information System”** means a system which -  
(a) processes Information;

- 
- (b) records Information;
  - (c) can be used to cause Information to be recorded, stored or otherwise processed in other Information systems (wherever situated); and
  - (d) can be used to retrieve Information, whether the Information is recorded or stored in the system itself or in other Information systems (wherever situated).

**“Issue”** in relation to a certificate, means to:

- (a) create the certificate, and then notify the person named or identified in the certificate as the person to whom the certificate is issued of the information on the person as contained in the certificate; or
- (b) notify the person to be named or identified in the certificate as the person to whom the certificate is issued of the information on the person that is to be contained in the certificate, and then create the certificate,

and then make the certificate available for use by the person.

**“Key Pair”**, in an Asymmetric Cryptosystem, key pair means a Private Key and its mathematically related Public Key, where the Public Key can verify a Digital Signature that the Private Key generates.

**“Ordinance”** means the Electronic Transactions Ordinance (Cap. 553).

**“Postmaster General”** means the Postmaster General within the meaning of the Post Office Ordinance (Cap.98).

**“Private Key”** means the key of a Key Pair used to generate a Digital Signature.

**“Public Key”** means the key of a Key Pair used to verify a Digital Signature.

**“RA”** means Registration Authority.

**“Recognized Certificate”** means

- (a) a certificate recognized under Section 22 of Electronic Transactions Ordinance;
- (b) a certificate of a type, class or description of certificate recognized under Section 22 of Electronic Transactions Ordinance; or
- (c) a certificate designated as a recognized certificate issued by the Certification Authority referred to in Section 34 of Electronic Transactions Ordinance.

**“Recognized Certification Authority”** means a Certification Authority recognized under Section 21 or the Certification Authority referred to in Section 34 of Electronic Transactions Ordinance.

**“Record”** means Information that is inscribed on, stored in or otherwise fixed on a tangible medium or that is stored in an electronic or other medium and is retrievable in a perceivable form.

**“Registration Authority”** means an organisation that has been appointed by HKPCA, if any as listed in **Appendix E**, to perform verification of Applicant’s identity as detailed in this CPS.

**“Reliance Limit”** means the monetary limit specified for reliance on a Recognized Certificate.

**“Relying Parties”** means a natural person or legal entity that have relied on any class or category of g-Cert, for authorised use of the Certificates in a transaction within the Designated Application of the Subscriber Organisation.

**“Repository”** means an Information System for storing and retrieving certificates and other Information relevant to certificates.

**“Requester”** means a user role in CMMP to raise a request of certificate application, certificate renewal and certificate revocation for CMMP User (the Applicant) who needs a certificate. A

---

CMMP User who has this role can also raise a request for oneself.

**“Role”** means the function or the responsibility of the CMMP User given by Subscriber Organisation.

**“Sign”** and **“Signature”** include any symbol executed or adopted, or any methodology or procedure employed or adopted, by a person with the intention of authenticating or approving a record.

**“Sub CA”** means the subordinate Certification Authority certificate which is issued by the Root CA “Hongkong Post Root CA 2” and is used to Sign the Hongkong Post Recognized Certificates.

**“Subcontractor”** means an organisation that has been appointed by Certizen Limited for the performance of part of the Contract.

**“Subscriber”** means a CMMP User or a functional unit under B/D/Os who:-

- (i) is named or identified in a certificate as the person or a functional unit under B/D/Os to whom the certificate is issued;
- (ii) has accepted that certificate; and
- (iii) holds\* a Private Key which corresponds to a Public Key listed in that certificate.

Note \*- “holds”, in connection to a Private Key, means to keep in one’s custody such that only the person named or identified in a certificate, who is duly authorised by the Subscriber Organisation as CMMP User, can use that Private Key.

**“Subscriber Agreement”** means an agreement which comprises the subscriber terms and conditions specified in the application form entered between the Subscriber and HKPost and the provisions in this CPS.

**“Subscriber Organisation”** means the B/D/Os in which the Requestor will apply g-Certs on behalf of Applicants in accordance with the eligibility criteria set out in this CPS.

**“TLS”** is the acronym of Transport Layer Security.

**“Trustworthy System”** means computer hardware, software and procedures that-

- (a) are reasonably secure from intrusion and misuse;
- (b) are at a reasonable level in respect of availability, reliability and ensuring a correct mode of operations for a reasonable period of time;
- (c) are reasonably suitable for performing their intended function; and
- (d) adhere to generally accepted security principles.

**For the purpose of the Electronic Transactions Ordinance, a Digital Signature is taken to be supported by a Certificate if the Digital Signature is verifiable with reference to the Public Key listed in a Certificate the Subscriber of which is the signer.**

## Appendix B - Hongkong Post g-Cert Format

This appendix provides the formats of g-Cert (Individual) and g-Cert (Functional Unit) issued by the Sub CA "Hongkong Post e-Cert CA 2 - 17" under this CPS.

### 1) g-Cert (Individual) Certificate Format

Field Name		Field Content
<b>Standard fields</b>		
Version		X.509 v3
Serial number		[20-byte hexadecimal number randomly generated by HKPost CA system]
Signature algorithm ID		sha256RSA
Issuer name		cn=Hongkong Post e-Cert CA 2-17, o=Hongkong Post, l=Hong Kong, s=Hong Kong, c=HK
Validity period	Not before	[UTC time set by HKPost CA system]
	Not after	[UTC time set by HKPost CA system]
Subject name		cn=[CMMP User's name] <sup>(Note 1)</sup> e=[email address] <sup>(Note 2)</sup> ou=[Subscriber Organisation branch/dept name] ou=[Subscriber Organisation name] ou=[Branch/Department name in abbreviation] ou=SRN <sup>(Note 3)</sup> o=Hongkong Post g-Cert (Individual) c=HK
Subject public key info		Algorithm ID: RSA Public Key: 2048-bit key size
Issuer unique identifier		Not used
Subject unique identifier		Not used
<b>Standard extension</b> <sup>(Note 4)</sup>		
Authority key identifier	Issuer	cn=Hongkong Post Root CA 2, o=Hongkong Post, l=Hong Kong, s=Hong Kong, c=HK
	Serial number	[Inherited from Issuer]
Key usage		Non-repudiation, Digital Signature, Key Encipherment  <b>(This field will be set Critical.)</b>
Certificate policies		Policy Identifier =[OID] <sup>(Note 5)</sup> Policy Qualifier Id = CPS Qualifier : [URL of CPS]
Subject alternative name	DNS	Not used
	1st Directory Name	ou=[Type] <sup>(Note 6)</sup> ou=[Subscriber Organisation Branch/Department Chinese name] ou=[Subscriber Organisation Chinese name]
	rfc822	[email address] <sup>(Note 2)</sup>
Issuer alternate name		Not used
Basic constraint	Subject type	End Entity
	Path length constraint	None
Extended key usage		SSL Client, S/MIME

Field Name		Field Content
CRL distribution points		Distribution Point Name = [URL of CRL Distribution Point] (Note 7)

Note

1. CMMP User's name format: Surname (in capital) + Given name (e.g. CHAN Tai Man David).
2. Email address of the CMMP User provided by Subscriber Organisation (blank if null).
3. SRN: 10-digit Subscriber Reference Number.
4. All standard extensions are set as "non-critical" unless otherwise specified.
5. The OID of this CPS is included in this field. Please refer to section 1.1 of this CPS for the OID of this CPS.
6. Type is the user type of the individual in the B/D/O.
7. URL of CRL Distribution Point is <http://crl1.eCert.gov.hk/crl/eCertCA2-17CRL2.crl> which is a partitioned CRL issued by the Sub CA "Hongkong Post e-Cert CA 2 - 17".

## 2) g-Cert (Functional Unit) Certificate Format

Field Name		Field Content
<b>Standard fields</b>		
Version		X.509 v3
Serial number		[20-byte hexadecimal number randomly generated by HKPost CA system]
Signature algorithm ID		sha256RSA
Issuer name		cn=Hongkong Post e-Cert CA 2-17, o=Hongkong Post, l=Hong Kong, s=Hong Kong, c=HK
Validity period	Not before	[UTC time set by HKPost CA system]
	Not after	[UTC time set by HKPost CA system]
Subject name		cn=[Name of Functional Unit] <sup>(Note 1)</sup> e=[email address] <sup>(Note 2)</sup> ou=[Subscriber Organisation Branch/Department name] ou=[Subscriber Organisation name] ou=[Branch/Department name in abbreviation] ou=SRN <sup>(Note 3)</sup> o=Hongkong Post g-Cert (Functional Unit) c=HK
Subject public key info		Algorithm ID: RSA Public Key: 2048-bit key size
Issuer unique identifier		Not used
Subject unique identifier		Not used
<b>Standard extension</b> <sup>(Note 4)</sup>		
Authority key identifier	Issuer	cn=Hongkong Post Root CA 2, o=Hongkong Post, l=Hong Kong, s=Hong Kong, c=HK
	Serial number	[Inherited from Issuer]
Key usage		Digital Signature, Key Encipherment  <b>(This field will be set Critical.)</b>
Certificate policies		Policy Identifier =[OID] <sup>(Note 5)</sup> Policy Qualifier Id = CPS Qualifier : [URL of CPS]
Subject alternative name	DNS	Not used
	1st Directory Name	ou=[Type] <sup>(Note 6)</sup> ou=[Subscriber Organisation Branch/Department Chinese name] ou=[Subscriber Organisation Chinese name]
	rfc822	[email address] <sup>(Note 2)</sup>
Issuer alternate name		Not used
Basic constraint	Subject type	End Entity
	Path length constraint	None
Extended key usage		SSL Client, S/MIME
CRL distribution points		Distribution Point Name = [URL of CRL Distribution Point] <sup>(Note 7)</sup>

### Note

1. Name of Functional Unit provided by Subscriber Organisation.
2. Email address of the Functional Unit provided by Subscriber Organisation (blank if null).



- 
3. SRN: 10-digit Subscriber Reference Number.
  4. All standard extensions are set as “non-critical” unless otherwise specified.
  5. The OID of this CPS is included in this field. Please refer to section 1.1 of this CPS for the OID of this CPS.
  6. Type is the user type of the functional unit in the B/D/O.
  7. URL of CRL Distribution Point is <http://crl1.eCert.gov.hk/crl/eCertCA2-17CRL2.crl> which is a partitioned CRL issued by the Sub CA “Hongkong Post e-Cert CA 2 - 17”.

## Appendix C - Hongkong Post Certificate Revocation Lists (CRLs) and Authority Revocation List (ARL) Format

The Appendix C of this CPS provides the arrangement of updating and publishing as well as the format of the Certificate Revocation Lists (CRLs) that are issued by the Sub CA “Hongkong Post e-Cert CA 2 - 17” and the Authority Revocation Lists (ARLs) that are issued by the root CA “Hongkong Post Root CA 2”.

HKPost updates and publishes the following Certificate Revocation Lists (CRLs) containing information of g-Cert certificates revoked under this CPS 3 times daily at 09:15, 14:15 and 19:00 Hong Kong Time (i.e. 01:15, 06:15 and 11:00 Greenwich Mean Time (GMT or UTC)):-

- a) **Partitioned CRLs** that contain Information of revoked certificates in groups. The partitioned CRL for g-Cert is available for public access at :-

<http://crl1.eCert.gov.hk/crl/eCertCA2-17CRL2.crl>

- b) **Full CRL** that contains Information of all revoked certificates that are issued by the Sub CA “Hongkong Post e-Cert CA 2 - 17”. The Full CRL for g-Cert is available for public access at :-

<http://crl1.eCert.gov.hk/crl/eCertCA2-17CRL1.crl>; or  
ldap://ldap1.eCert.gov.hk (port 389, cn=Hongkong Post e-Cert CA 2 - 17 CRL1, o=Hongkong Post, c=HK)

The URL for accessing the relevant CRL that contains the information of the revoked certificate is specified in the “CRL Distribution Points” field of the certificate.

Under normal circumstances, HKPost will publish the latest CRL as soon as possible after the update time. HKPost may need to change the above updating and publishing schedule of the CRL without prior notice if such changes are considered to be necessary under unforeseeable circumstances. Where circumstances warrant, HKPost may also publish supplementary update of CRLs at the HKPost web site at <http://www.eCert.gov.hk> on ad hoc basis without prior notice.

### (I) Format of Partitioned and Full CRL issued by the Sub CA “Hongkong Post e-Cert CA 2 - 17” under this CPS:

Standard Fields	Sub-fields	Field Contents of Partitioned CRL	Field Contents of Full CRL	Remarks
Version		v2		This field describes the version of encoded CRL as X.509 v2.
Signature algorithm ID		sha256RSA		This field contains the algorithm identifier for the algorithm used to sign the CRL.
Issuer name		cn=Hongkong Post e-Cert CA 2 - 17, o=Hongkong Post, l=Hong Kong s=Hong Kong c=HK		This field identifies the entity who has signed and issued the CRL.
This update		[UTC time]		“This Update” indicates the date the CRL was generated.
Next update		[UTC time]		“Next Update” contains the date by which the next CRL will be issued, but it will not be issued any later than the indicated date. Notwithstanding this, the CRL is updated and issued on a <b>daily</b> basis as stated in the CPS.
Revoked certificates	User certificate	[Certificate Serial Number]		Revoked certificates are listed by their serial numbers.

Standard Fields	Sub-fields	Field Contents of Partitioned CRL	Field Contents of Full CRL	Remarks
	<b>Revocation date</b>	[UTC time]		The date on which the revocation occurred is specified.
	<b>CRL entry extensions</b>			
	<b>Reason code</b>	[Revocation Reason Code]		(Note 1)
<b>Standard extension</b> (Note 2)				
<b>Authority key identifier</b>	<b>Issuer</b>	cn=Hongkong Post Root CA 2 o=Hongkong Post l=Hong Kong s=Hong Kong c=HK		This field provides a means of identifying the Public Key corresponding to the Private Key used to sign a CRL.
	<b>Serial number</b>	[Inherited from Issuer]		This field indicates the serial number of the issuer certificate.
<b>CRL number</b>		[Generated by CA system – each partitioned CRL has its own sequence]		The CRL Number is generated in sequence for each CRL issued by a CA.
<b>Issuer distribution point</b>		[DER Encoded CRL Distribution Point]  <b>(This field will be set Critical.)</b>	Not used	This field is used for Partitioned CRLs only.

(II) Format of ARL issued by the root CA "Hongkong Post Root CA 2" under this CPS:

Standard Fields	Sub-fields	Field Contents of ARL	Remarks
<b>Version</b>		v2	This field describes the version of encoded ARL as X.509 v2.
<b>Signature algorithm ID</b>		sha256RSA	This field contains the algorithm identifier for the algorithm used to sign the ARL.
<b>Issuer name</b>		cn=Hongkong Post e-Cert CA 2, o=Hongkong Post, l=Hong Kong s=Hong Kong c=HK	This field identifies the entity who has signed and issued the ARL.
<b>This update</b>		[UTC time]	"This Update" indicates the date the ARL was generated.
<b>Next update</b>		[UTC time]	"Next Update" contains the date by which the next ARL will be issued, but it will not be issued any later than the indicated date. Notwithstanding this, the ARL is updated and issued on an <b>annual</b> basis as stated in the CPS.
<b>Revoked certificates</b>	<b>User certificate</b>	[Certificate Serial Number]	Revoked certificates are listed by their serial numbers.
	<b>Revocation date</b>	[UTC time]	The date on which the revocation occurred is specified.
	<b>CRL entry extensions</b>		
	<b>Reason code</b>	[Revocation Reason Code]	(Note 1)

Standard Fields	Sub-fields	Field Contents of ARL	Remarks
<b>Standard extension</b> (Note 2)			
<b>Authority key identifier</b>	<b>Issuer</b>	cn=Hongkong Post Root CA 2 o=Hongkong Post l=Hong Kong s=Hong Kong c=HK	This field provides a means of identifying the Public Key corresponding to the Private Key used to sign a ARL.
	<b>Serial number</b>	[Inherited from Issuer]	This field indicates the serial number of the issuer certificate.
<b>CRL number</b>		[Generated by CA system]	The CRL Number is generated in sequence for each ARL issued by a CA.
<b>Issuer distribution point</b>		Only Contains User Certs=No Only Contains CA Certs=Yes Indirect CRL=No  <b>(This field will be set Critical.)</b>	

**Note**

1. The following reason codes may be included in the field:

0 = Unspecified, 1 = Key compromise, 2 = CA compromise, 3 = Affiliation changed,  
4 = Superseded, 5 = Cessation of operation, 6 = Certificate hold

The reason code "0" (i.e. unspecified) will be indicated since Applicants or Subscribers will not be required to give any particular reason of certificate revocation.

2. All fields will be set "non-critical" unless otherwise specified.

## Appendix D - Summary of Hongkong Post g-Cert Features

Features <sup>(Note 1)</sup>	g-Cert Certificate
<b>Subscriber Organisation</b>	Bureaux/Departments/Offices of the Government of Hong Kong SAR
<b>Subscriber</b>	CMMP User / CMMP functional unit
<b>Reliance Limit</b>	HK\$200,000
<b>Recognized Certificate</b>	Yes
<b>Key pair size</b>	2048-bit RSA
<b>Registration Authority</b>	Business Administrator of CMMP system at respective B/D/Os
<b>Key pair generation</b>	Key generation by CMMP
<b>Identity verification</b>	As mentioned in Section 3.1.8
<b>Usage of certificate</b>	<ul style="list-style-type: none"> <li>• Encryption / Decryption, and generation of signature for acknowledge receipt of message.</li> <li>• Sign document and perform authentication within CMMP (not to serve as digital signature under ETO) (for g-Cert (Individual) only)</li>   <li>• Used in the Designated Applications of the corresponding g-Cert as specified in <b>Appendix H</b></li> </ul>
<b>Subscriber's information included in the certificate</b>	<ul style="list-style-type: none"> <li>▪ Subscriber Organisation's name</li> <li>▪ CMMP User's name and email address (for g-Cert (Individual));</li> <li>▪ Functional Unit's name and email address (for g-Cert (Functional Unit))</li> <li>▪ Subscriber Reference Number (SRN) generated by the HKPost system</li> </ul>
<b>Subscription fees and certificate validity</b>	Certificate validity ranges from one year to three years. See <b>Appendix H</b>

## Note

1. Prior arrangement between the subscriber organisation and HKPost is required before HKPost will issue g-Cert certificates for that subscriber.

## Appendix E - List of Subscriber Organisation / Registration Authorities and CMMP for the Hongkong Post g-Cert, if any

## (I) List of B/D/O as Subscriber Organisation / Registration Authority for HKPost

Name of B/D/O as Subscriber Organisation / Registration Authority for HKPost	Classes of Certificate(s)	Services to be Provided
Commerce and Economic Development Bureau – Communications and Creative Industries Branch Commerce and Economic Development Bureau – Commerce, Industry and Tourism Branch Chief Executive's Office Constitutional and Mainland Affairs Bureau Civil Service Bureau Chief Secretary for Administration's Office and Financial Secretary's Office Chief Secretary for Administration's Office – Government Records Service Development Bureau – Planning and Lands Branch Development Bureau – Works Branch Department of Justice	g-Cert (Individual) and g-Cert (Functional Unit)	The following processes of g-Cert applications for CMMP:- - certificate applications as set out in Sections 3.1 and 4.1. - certificate renewal request as set out in Section 3.2. - certificate revocation request as set out in Section 4.4.1, 4.4.2 and 4.4.3. - protection of documents by B/D/O as set out in Section 5.1.8.

Name of B/D/O as Subscriber Organisation / Registration Authority for HKPost	Classes of Certificate(s)	Services to be Provided
Education Bureau Environment Bureau and Environmental Protection Department Food and Health Bureau Financial Services and the Treasury Bureau – Financial Services Branch Financial Services and the Treasury Bureau – The Treasury Branch Home Affairs Bureau Innovation and Technology Bureau Innovation and Technology Bureau – Efficiency Office Innovation and Technology Bureau – Innovation and Technology Commission Innovation and Technology Bureau – Office of the Government Chief Information Officer Labour and Welfare Bureau Policy Innovation and Co-ordination Office Security Bureau Transport and Housing Bureau		



(II) CMMP

<b>CMMP Administration and Support</b>	<b>Classes of Certificate(s)</b>	<b>Services to be Provided</b>	<b>Remarks</b>
Office of the Government Chief Information Officer	Hongkong Post g-Cert (Individual) and g-Cert (Functional Unit)	<p>Setup and Maintenance the CMMP System for B/D/O:</p> <ul style="list-style-type: none"><li>- with user roles for B/D/O to perform functions related to g-Cert applications;</li><li>- provide approval workflow for the process off certificate application, renewal and revocation;</li><li>- provide safe custody of g-Cert subscribers' Private Key and its use;</li><li>- upon request by B/D/O, provide the g-Cert subscriber's Private Key to B/D/Os</li></ul> <p>The following processes of g-Cert applications for B/D/O applicants:-</p> <ul style="list-style-type: none"><li>- Define user role in CMMP to allow B/D/O to assign staff to act as Registration Authority for verifying the identity of Applicant as set out in Section 2.1.3.</li><li>- key generation as set out in Sections 3.1.7, 3.2 and 4.2.</li><li>- take responsibilities of the obligations as set out in Section 2.1.3.</li></ul>	For segregation of duties, the CMMP should not allow a user who acts as "Business Administrator" role to approve a request that is raised by oneself, that is for a request, a CMMP User cannot be acting both the "Business Administrator" and the "Requester".

**Appendix F - List of Subcontractor(s) of Certizen Limited for Hongkong Post g-Cert Services, if any**

With effect from the date of this CPS, no Subcontractor of Certizen Limited for Hongkong Post g-Cert Services, for the purpose of this CPS, is appointed.

## Appendix G - Lifespan of CA root certificates

Name of the root certificate	Lifespan	Remarks
Hongkong Post Root CA 2	5 September 2015 – 5 September 2040	
Hongkong Post e-Cert CA 2 - 17	12 August 2017 – 12 August 2032	This Sub CA commences to issue g-Cert to applicants with effect from 19 July 2019.

## Appendix H - List of the Designated Applications of Hongkong Post g-Cert Certificates

<b>g-Cert Type</b>	<b>Certificate Validity</b>	<b>Designated Application</b>	<b>Subscription Fees</b>	<b>Remarks</b>
g-Cert (Individual)	1 – 3 years	OGCIO applications supported by CMMP	New application or renewal : HK\$20 per certificate per year	Use of g-Cert (Individual) for the purpose as set out in Section 1.2.4.1.
g-Cert (Functional Unit)	1 – 3 years	OGCIO applications supported by CMMP	New application or renewal : HK\$20 per certificate per year	Use of g-Cert (Functional Unit) for the purpose as set out in Section 1.2.4.2.