



Report of the Independent Accountant

To the Management of Korea Electronic Certification Authority, Inc. ("CrossCert"):

We have examined the assertions by the management of CrossCert, a subordinate Certification Authority of Symantec Corporation, that for its Certification Authority (CA) operations at Republic of Korea, throughout the period July 1, 2016 to June 30, 2017 for its CA services listed in Appendix A, CrossCert has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in its:
 - CrossCert Certificate Practice Statement Version 3.8.9,
- maintained effective controls to provide reasonable assurance that:
 - CrossCert provides its services in accordance with its Certification Practice Statement
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
 - the integrity of subscriber keys and certificates it manages is established and protected throughout their lifecycles
 - subscriber information is properly authenticated (for the registration activities performed by CrossCert); and
 - subordinate CA certificate requests are accurate, authenticated, and approved
- maintained effective controls to provide reasonable assurance that:
 - logical and physical access to CA systems and data is restricted to authorized individuals;
 - the continuity of key and certificate management operations is maintained; and
 - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity

based on the WebTrust Principles and Criteria for Certification Authorities, Version 2.0.

CrossCert's management is responsible for its assertion. Our responsibility is to express an opinion on management's assertion based on our examination.

We conducted our examination in accordance with standards for attestation engagements established by the American Institute of Certified Public Accountants and, accordingly, included:

- (1) obtaining an understanding of CrossCert's key and certificate lifecycle management business practices and its controls over key and certificate integrity, over the authenticity and confidentiality of subscriber and relying party information, over the continuity of key and certificate lifecycle management operations and over the development, maintenance and operation of systems integrity;



- (2) selectively testing transactions executed in accordance with disclosed key and certificate lifecycle management business practices;
- (3) testing and evaluating the operating effectiveness of the controls; and
- (4) performing such other procedures as we considered necessary in the circumstances.

We believe that our examination provides a reasonable basis for our opinion.

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

Because of the nature and inherent limitations of controls, CrossCert's ability to meet the aforementioned criteria may be affected. For example, controls may not prevent, or detect and correct, error, fraud, unauthorized access to systems and information, or failure to comply with internal and external policies or requirements. Also, the projection of any conclusions based on our findings to future periods is subject to the risk that changes may alter the validity of such conclusions.

In our opinion, throughout the period July 1, 2016 to June 30, 2017, CrossCert management's assertion, as referred above, is fairly stated, in all material respects, based on the WebTrust Principles and Criteria for Certification Authorities, Version 2.0.

This report does not include any representation as to the quality of CrossCert's services beyond those covered by the WebTrust Principles and Criteria for Certification Authorities, Version 2.0., nor the suitability of any of CrossCert's services for any customer's intended purpose.

Crosscert's use of the WebTrust for Certification Authorities Seal constitutes a symbolic representation of the contents of this report and it is not intended, nor should it be construed, to update this report or provide any additional assurance.

Minsoo Kim, Partner
Seoul, Republic of Korea
December 08, 2017



Appendix A – Root and Issuing CAs that account for CrossCert CA Services

Symantec Root CAs:	Symantec Other Issuing CAs
VeriSign Class 1 Public Primary Certification Authority – G3 VeriSign Class 2 Public Primary Certification Authority – G3 VeriSign Class 3 Public Primary Certification Authority – G3 Symantec Class 3 Internal Root CA	CrossCert Class 1 Consumer Individual Subscriber CA – G2 CrossCert Class 1 Consumer Individual Subscriber CA – G3 CrossCert Class 2 Managed MPKI Individual Subscriber CA – G2 CrossCert Class 2 Managed MPKI Individual Subscriber CA – G3 CrossCert Class 3 Managed PKI Enterprise Administrator CA – G3 CrossCert Class 3 Managed PKI Operational Administrator CA – G3 CrossCert Class 3 Private MPKI Enterprise Administrator CA CrossCert Class 3 Private MPKI Operational Administrator CA CrossCert Automated Administration – G2
CrossCert Root CAs CrossCert Class 2 CA – G2 CrossCert Class 2 CA – G3	CrossCert Issuing CAs POSCO Online CA –G2 POSCO Online CA –G3 POSCOPNS Online CA POSCOPNS Online CA – G2



Assertion of Management as to
its Disclosure of its Business Practices and its Controls Over
its Certification Authority Operations
throughout the period July 1, 2016 to June 30, 2017

December 08, 2017

Korea Electronic Certification Authority, Inc. ("CrossCert") operates the Certification Authority (CA) services as a subordinate CA of Symantec Corporation ("Symantec"). The Symantec and CrossCert Root and Issuing CAs are listed in Appendix A and provide the following CA services:

- Subscriber registration
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- Certificate validation
- Subscriber key management
- Subordinate CA certification

The management of CrossCert is responsible for establishing and maintaining effective controls over its CA operations, including CA business practices disclosure on its website, CA business practices management, CA environmental controls, CA key lifecycle management controls, subscriber key lifecycle management controls, certificate lifecycle management controls., and subordinate CA certificate lifecycle management controls. These controls contain monitoring mechanisms, and actions are taken to correct deficiencies identified.

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

CrossCert management has assessed its disclosures of its certificate practices and controls over its CA services. Based on that assessment, in CrossCert management's opinion, in providing its Certification Authority (CA) services at Republic of Korea, CrossCert-CA, throughout the period July 1, 2016 to June 30, 2017, CrossCert has:

- disclosed its Business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in its:
 - CrossCert Certificate Practice Statement Version 3.8.9,
- maintained effective controls to provide reasonable assurance that:
 - CrossCert provides its services in accordance with its Certification Practice Statement
- maintained effective controls to provide reasonable assurance that:

- the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
 - the integrity of subscriber keys and certificates it manages is established and protected throughout their lifecycles
 - subscriber information is properly authenticated (for the registration activities performed by CrossCert); and
 - subordinate CA certificate requests are accurate, authenticated, and approved
- maintained effective controls to provide reasonable assurance that:
 - logical and physical access to CA systems and data is restricted to authorized individuals;
 - the continuity of key and certificate management operations is maintained; and
 - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity

based on the WebTrust Principles and Criteria for Certification Authorities, Version 2.0., including the following:

CA Business Practices Disclosure

- Certification Practice Statement (CPS)

CA Business Practices Management

- Certification Practice Statement Management
- CP and CPS Consistency

CA Environmental Controls

- Security Management
- Asset Classification and Management
- Personnel Security
- Physical & Environmental Security
- Operations Management
- System Access Management
- System Development and Maintenance
- Business Continuity Management
- Monitoring and Compliance
- Audit Logging

CA Key Lifecycle Management Controls

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

Subscriber Key Lifecycle Management Controls

- CA-Provided Subscriber Key Generation Services
- CA-Provided Subscriber Key Storage and Recovery Services
- Requirements for Subscriber Key Management

Certificate Lifecycle Management Controls

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

Subordinate CA Certificate Lifecycle Management Controls

- Subordinate CA Certificate Lifecycle Management



Kyung-Won Chong
COO
CrossCert

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