

NAVER Business Platform MANAGEMENT'S ASSERTION

26 December, 2017

NAVER Business Platform, Corp. ("NBP") operates as a Certification Authority (CA) services known as in **Appendix A**, and provides the following certification authority services:

- Subscriber registration
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- Certificate suspension
- Certificate validation
- Subscriber key generation and management
- Subordinate CA [cross-]certification

The management of NBP 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, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even effective controls can provide only reasonable assurance with respect to NBP's CA operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

NBP management has assessed the controls over its CA services. Based on that assessment, NBP Management's opinion, in providing its Certification Authority (CA) services at Seongnam-si, Gyeonggi-do, Republic of Korea and Chuncheon-si, Gangwon-do, Republic of Korea, during the period September 1, 2017 through November 30, 2017, NBP has:

- Disclosed its business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in its:
 - [NAVER BUSINESS PLATFORM Corp. Certification Practice Statement v1.0](#)
- Maintained effective controls to provide reasonable assurance that
 - NBP 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 life cycles;

- The integrity of subscriber keys and certificates it manages is established and protected throughout their life cycles;
- The Subscriber information is properly authenticated for the registration activities performed by NBP;
- 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;
 - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity

in accordance with the *Trust Services Principles and Criteria for Certification Authorities v 2.0* including the following:

CA Business Practices Disclosure

- Certification Practice Statement (CPS)
- Certificate Policy (CP) (*CP is not applicable for NBP*)

CA Business Practices Management

- Certificate Policy Management (*CP is not applicable for NBP*)
- 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
- CA Key Escrow (*NBP does not provide CA Key Escrow*)

Subscriber Key Lifecycle Management Controls (*NBP does not provide CA-provided subscriber key generation, storage and recovery services*)

- CA-Provided Subscriber Key Generation Services
- CA-Provided Subscriber Key Storage and Recovery Services
- Integrated Circuit Card (ICC) Lifecycle Management
- Requirements for Subscriber Key Management

Certificate Lifecycle Management Controls

- Subscriber Registration
- Certificate Renewal
- Certificate Rekey
- Certificate Issuance
- Certificate Distribution
- Certificate Revocation
- Certificate Suspension (*NBP does not provide certificate suspension*)
- Certificate Validation

Subordinate CA Certificate Lifecycle Management Controls

- Subordinate CA Certificate Lifecycle Management



Kim Jae Dong

Kim, Jae Dong
Chief Information Security Officer
NAVER Business Platform, Corp.

INDEPENDENT ASSURANCE REPORT

To the Management of NAVER Business Platform, Corp. (“NBP”):

We have been engaged, in a reasonable assurance engagement, to report on NBP management’s assertion that for its Certification Authority (CA) operations at Seongnam-si, Gyeonggi-do and Chuncheon-si, Gangwon-do, Republic of Korea, throughout the period September 1, 2017 to November 30, 2017 for its CAs as enumerated in **APPENDIX A**, NBP has:

- Disclosed its business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in its:
 - NAVER BUSINESS PLATFORM Corp. Certification Practice Statement v1.0
- Maintained effective controls to provide reasonable assurance that
 - NBP 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 life cycles;
 - The integrity of subscriber keys and certificates it manages is established and protected throughout their life cycles;
 - The Subscriber information is properly authenticated for the registration activities performed by NBP;
 - 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;
 - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity

in accordance with the Trust Services Principles and Criteria for Certification Authorities v2.0.

NBP does not escrow its CA keys, does not provide subscriber key generation services, and does not provide certificate suspension services. Accordingly, our procedures did not extend to controls that

would address those criteria.

Certification authority's responsibilities

NBP's management is responsible for its assertion, including the fairness of its presentation, and the provision of its described services in accordance with the WebTrust Principles and Criteria for Certification Authorities v2.0.

Our independence and quality control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies International Standard on Quality Control 1, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Auditor's responsibilities

Our responsibility is to express an opinion on management's assertion based on our procedures. We conducted our procedures in accordance with International Standard on Assurance Engagements 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform our procedures to obtain reasonable assurance about whether, in all material respects, management's assertion is fairly stated, and, accordingly, included:

- (1) obtaining an understanding of NBP's key and certificate life cycle management business practices and its controls over key and certificate integrity, over the authenticity and privacy of subscriber and relying party information, over the continuity of key and certificate life cycle management operations, and over the development, maintenance, and operation of systems integrity;
- (2) selectively testing transactions executed in accordance with disclosed key and certificate life cycle 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.

Relative effectiveness of controls

The relative effectiveness and significance of specific controls at NBP 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.

Inherent limitations

Because of the nature and inherent limitations of controls, NBP'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.

Opinion

In our opinion, for the period September 1, 2017 through November 30, 2017, NBP management's assertion, as set forth in the first paragraph, is fairly stated, in all material respects, based on the Trust Services Principles and Criteria for Certification Authorities Version 2.0,

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

Use of the WebTrust seal

NBP'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.



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Seoul, Republic of Korea
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Appendix A [List of CAs in Scope]

Root CAs
#1. NAVER Global Root Certification Authority
OV SSL Issuing CAs
#2. NAVER Secure Certification Authority 1

Appendix B [CA Identifying Information for in Scope CAs]

CA #	Cert #	Subject	Issuer	Serial	Key Algorithm	Key Size	Digest Algorithm	Not Before	Not After	SKI	SHA1 Fingerprint
1	1	CN = NAVER Global Root Certification Authority O = NAVER BUSINESS PLATFORM Corp. C = KR	CN = NAVER Global Root Certification Authority O = NAVER BUSINESS PLATFORM Corp. C = KR	01 94 30 1e a2 0b dd f5 c5 33 2a b1 43 44 71 f8 d6 50 4d 0d	rsaEncryption	(4096 bits)	sha384With RSAEncryption	Aug 18 17:58:42 2017 GMT	Aug 19 08:59:59 2037 GMT	d2 9f 88 df a1 cd 2c bd ec f5 3b 01 01 93 33 27 b2 eb 60 4b	8f 6b f2 a9 27 4a da 14 a0 c4 f4 8e 61 27 f9 c0 1e 78 5d d1
2	1	CN = NAVER Secure Certification Authority 1 O = NAVER BUSINESS PLATFORM Corp. C = KR	CN = NAVER Global Root Certification Authority O = NAVER BUSINESS PLATFORM Corp. C = KR	06 04 62 33 a5 82 55 76 a4 82 72 69 47 18 a8 00 0f 2f 00 0d	rsaEncryption	(2048 bits)	sha256With RSAEncryption	Aug 18 19:05:55 2017 GMT	Aug 19 08:59:59 2027 GMT	e9 f9 eb 97 be 21 f2 54 c7 e9 26 37 02 39 ba fc b1 9b 0c e9	f8 ef a3 3d 11 68 1b 91 fe 35 20 6d ca 99 35 71 eb 35 9f 19