

## INDEPENDENT ASSURANCE REPORT

To the Management of NAVER Cloud Corp. (“NAVER Cloud”):

### Scope

We have been engaged, in a reasonable assurance engagement, to report on [NAVER Cloud management’s assertion](#) that for its Certification Authority (CA) operations in the locations as enumerated in Attachment B throughout the period 1 November 2021 to 30 September 2022 for its CAs as enumerated in Attachment C, NAVER Cloud has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in its Certification Practice Statements as enumerated in Attachment A
- maintained effective controls to provide reasonable assurance that:
  - NAVER Cloud provides its services in accordance with its Certification Practice Statements
- 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 certificates it manages is established and protected throughout their lifecycles; and
  - subscriber information is properly authenticated (for the registration activities performed by NAVER Cloud)
- maintained effective controls to provide reasonable assurance that:
  - logical and physical access to CA systems and data is restricted to authorised individuals;
  - the continuity of key and certificate management operations is maintained; and
  - CA systems development, maintenance, and operations are properly authorised and performed to maintain CA systems integrity

in accordance with the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#).

NAVER Cloud does not escrow its CA keys, does not provide subscriber key lifecycle management services, does not provide certificate suspension services, and does not provide subordinate and cross certificate lifecycle management services. Accordingly, our procedures did not extend to controls that would address those criteria.

### Certification authority’s responsibilities

NAVER Cloud’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 v2.2.2](#).

### 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, *Quality Control for Firms that Perform Audits and Reviews of Historical Financial Information, and Other Assurance and Related Services Engagements* 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.

### Practitioner’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 NAVER Cloud’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 the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

The relative effectiveness and significance of specific controls at NAVER Cloud 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**

There are inherent limitations in the effectiveness of any system of internal control, including possibility of human error and the circumvention of controls. For example, because of their nature, controls may not prevent, or detect unauthorised 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 the risk that controls may become ineffective.

**Opinion**

In our opinion, throughout the period 1 November 2021 to 30 September 2022, NAVER Cloud management’s assertion, as referred to above, is fairly stated, in all material respects, in accordance with the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#).

This report does not include any representation as to the quality of NAVER Cloud’s services beyond those covered by the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#), nor the suitability of any of NAVER Cloud’s services for any customer’s intended purpose.

**Other matters**

Without modifying our opinion, we noted the following other matters during our procedures:

	Matter Topic	Matter Description
1	Mozilla 'bug' response	As described in NAVER Cloud Corp. management’s assertion, NAVER Cloud has reported or responded to a certain 'bug' on Mozilla’s Bugzilla reporting system. NAVER Cloud Corp. management’s assertion contains information on their outcome or resolution.

**Use of the WebTrust seal**

NAVER Cloud’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.

*Deloitte Anjin LLC.*

Deloitte Anjin LLC  
Seoul, Republic of Korea  
28 November 2022



Attachment A

Certification Practice Statement Versions In-Scope

CPS Name	Version	Date
NAVER Cloud CPS	<a href="#">1.6.1</a>	28 September, 2022
NAVER Cloud CPS	<a href="#">1.6.0</a>	25 October, 2021



**Attachment B**

**Locations In-Scope**

<b>Locations</b>	<b>Functions</b>
Chuncheon-si, Gangwon-do, Republic of Korea	Datacenter Facility
Anyang-si, Gyeonggi-do, Republic of Korea	Datacenter Facility
Seongnam-si, Gyeonggi-do, Republic of Korea	Back-end Office Support



Attachment C

List of CAs in Scope

<b>Root CAs</b>
#1. NAVER Global Root Certification Authority
<b>DV/OV SSL Issuing CAs</b>
#2. NAVER Secure Certification Authority 1



### CA Identifying Information for in Scope CAs

CA #	Cert #	Subject	Issuer	Serial Number	Key Algorithm	Key Size	Digest Algorithm	Not Before	Not After	Subject Key Identifier	SHA256 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	0194301ea20b ddf5c5332ab14 34471f8d6504d 0d	rsaEncryption	4096 Bits	sha384	18 August 2017 08:58:42 GMT	18 August 2037 23:59:59 GMT	d29f88dfa1cd2cbdecf53b0101933327 b2eb604b	88F438DC8FFD1FA8F429115FFE5F82AE1E06E0C70C375FAAD717B34 A49E7265
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	06046233a582 5576a4827269 4718a8000f2f0 00d	rsaEncryption	2048 Bits	sha256	18 August 2017 10:05:55 GMT	18 August 2027 23:59:59 GMT	d29f88dfa1cd2cbdecf53b0101933327 b2eb604b	C5EB1A7639B9D8D70B4F82ADD80794175EE4B6A3DB1861B38717C96 FC1914927

## NAVER Cloud Corp. MANAGEMENT'S ASSERTION

NAVER Cloud Corp. ("NAVER Cloud") operates the Certification Authority (CA) services known as [Attachment C](#), and provides the following CA services:

- Subscriber registration
- Certificate renewal
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- Certificate validation

The management of NAVER Cloud is responsible for establishing and maintaining effective controls over its CA operations, including its CA business practices disclosure on its [website](#), CA business practices management, CA environmental controls, CA key lifecycle management controls, subscriber key lifecycle management controls, and 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 NAVER Cloud's Certification Authority operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

NAVER Cloud management has assessed its disclosures of its certificate practices and controls over its CA services. Based on that assessment, in NAVER Cloud management's opinion, in providing its Certification Authority (CA) services in the locations as enumerated in [Attachment B](#) throughout the period 1 November 2021 to 30 September 2022, NAVER Cloud has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in its Certification Practice Statements as enumerated in Attachment A
- maintained effective controls to provide reasonable assurance that:
  - NAVER Cloud provides its services in accordance with its Certification Practice Statements
- 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 certificates it manages is established and protected throughout their lifecycles; and
  - subscriber information is properly authenticated (for the registration activities performed by NAVER Cloud);
- maintained effective controls to provide reasonable assurance that:
  - logical and physical access to CA systems and data is restricted to authorised individuals;
  - the continuity of key and certificate management operations is maintained; and
  - CA systems development, maintenance, and operations are properly authorised and performed to maintain CA systems integrity

in accordance with the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#), including the following:

### CA Business Practices Disclosure

- Certification Practice Statement (CPS)

### CA Business Practices Management

- Certification Practice Statement Management

### 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
- CA Key Destruction
- CA Key Compromise
- CA Cryptographic Hardware Lifecycle Management

#### Certificate Lifecycle Management Controls

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

NAVER Cloud does not escrow its CA keys, does not provide subscriber key lifecycle management services, does not provide certificate suspension services, and does not provide subordinate and cross certificate lifecycle management services. Accordingly, our assertion does not extend to controls that would address those criteria.

NAVER Cloud has disclosed the following publicly on Mozilla's Bugzilla platform, which has not been closed as of the date of this report.

Bug ID	Summary	Opened	Closed	Resolution
<a href="#">1785865</a>	NAVER Cloud: DV certificate issued with no subject alternative name extension	18 August 2022	Open as of Report Date	-



Kim, Jae Dong  
Chief Information Security Officer  
NAVER Cloud Corp.  
Republic of Korea  
28 November 2022

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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	06046233a582 5576a4827269 4718a8000f2f0 00d	rsaEncryption	2048 Bits	sha256	18 August 2017 10:05:55 GMT	18 August 2027 23:59:59 GMT	d29f88dfa1cd2cbdecf53b0101933327 b2eb604b	C5EB1A7639B9D8D70B4F82ADD80794175EE4B6A3DB1861B38717C96 FC1914927