Valencia, June 20, 2023

Independent Assurance Report

To the Management of OISTE Foundation (OISTE):

Scope

We have been engaged, in a reasonable assurance engagement, to report on OISTE management's assertion that for its Certification Authority (CA) operations at Geneva, Switzerland, throughout the period May 9, 2022 through May 8, 2023 for its CAs as enumerated in Appendix A, OISTE has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environment control practices in its Certification Practice Statements as enumerated in Appendix B.

- maintained effective controls to provide reasonable assurance that:
  - OISTE's Certification Practice Statement is consistent with its Certificate Policies
  - OISTE provides its services in accordance with its Certificate Policies and 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 OISTE); 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

in accordance with the WebTrust Principles and Criteria for Certification Authorities v2.2.2.

OISTE makes use of external registration authorities for specific subscriber registration activities as disclosed in OISTE's business practices. Our procedures did not extend to the controls exercised by these external registration authorities.
OISTE does not escrow its CA keys. Accordingly, our procedures did not extend to controls that would address those criteria.

Certification authority's responsibilities

OISTE'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 (ISQM) 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or 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.

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 OISTE'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 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.

OISTE's Management has inform us that no incidents have been posted publicly in the online forums of the CA/Browser Forum, neither online forums of individual internet browsers that comprise the CA/Browser Forum.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Relative effectiveness of controls

The relative effectiveness and significance of specific controls at OISTE 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 the 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 to the future of any conclusions based on our findings is subject to the risk that controls may become ineffective.

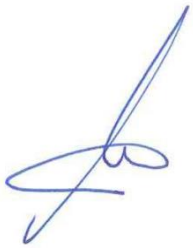
Opinion

In our opinion, throughout the period May 9, 2022 through May 8, 2023, OISTE 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 OISTE's services beyond those covered by the WebTrust Principles and Criteria for Certification Authorities v2.2.2, nor the suitability of any of OISTE's services for any customer's intended purpose.

Use of the WebTrust seal

OISTE'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.



F. Mondragon, Auditor

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Valencia, SPAIN

June 20, 2023

APPENDIX A: List of CAs in Scope

Root Cas
1. OISTE WISeKey Global Root GA CA
2. OISTE WISeKey Global Root GB CA
3. OISTE WISeKey Global Root GC CA

CA Identifying Information for in Scope CAs

CA#	Cert #	Subject	Issuer	serialNumber	notBefore	NotAfter	SHA256 Fingerprint
1	1	CN=OISTE WISeKey Global Root GA CA, OU=OISTE Foundation Endorsed, OU=Copyright (c) 2005, O=WISeKey, C=CH	CN=OISTE WISeKey Global Root GA CA, OU=OISTE Foundation Endorsed, OU=Copyright (c) 2005, O=WISeKey, C=CH	413D72C7F46B1F81437DF1D22854DF9A	Dec 11 16:03:44 2005 GMT	Dec 11 16:09:51 2037 GMT	41C923866AB4CAD6B7AD578081582E020797A6CBDF4FFF78CE8396B38937D7F5
2	1	CN=OISTE WISeKey Global Root GB CA, OU=OISTE Foundation Endorsed, O=WISeKey, C=CH	CN=OISTE WISeKey Global Root GB CA, OU=OISTE Foundation Endorsed, O=WISeKey, C=CH	76B1205274F0858746B3F8231AF6C2C0	Dec 1 15:00:32 2014 GMT	Dec 1 15:10:31 2039 GMT	6B9C08E86EB0F767CFAD65CD98B62149E5494A67F5845E7BD1ED019F27B86BD6
3	1	CN=OISTE WISeKey Global Root GC CA, OU=OISTE Foundation Endorsed, O=WISeKey, C=CH	CN=OISTE WISeKey Global Root GC CA, OU=OISTE Foundation Endorsed, O=WISeKey, C=CH	212A560CAEDA0CAB4045BF2BA22D3AEA	May 9 09:48:34 2017 GMT	May 9 09:58:33 2042 GMT	8560F91C3624DABA9570B5FEA0DBE36FF11A8323BE9486854FB3F34A5571198D

APPENDIX B: LIST OF CERTIFICATION PRACTICE STATEMENTS

- **OISTE CERTIFICATION PRACTICES STATEMENT**

Version	Date	Changes
3.4	29 September 2022	Annual review
3.3	04 October 2021	Change of contact address

- **OISTE CERTIFICATE POLICY FOR PERSONAL CERTIFICATES**

Version	Date	Changes
1.3	30 January 2023	Annual review. No changes
1.2	21 March 2022	Annual review. No changes

- **OISTE CERTIFICATE POLICY FOR SSL/TLS CERTIFICATES**

Version	Date	Changes
1.4	30 January 2023	Annual review. No changes.
1.3	3 February 2022	Annual review. No changes.

- **OISTE CERTIFICATE POLICY FOR DEVICE/IoT CERTIFICATES**

Version	Date	Changes
1.0	25 February 2019	First public version

OISTE MANAGEMENT'S ASSERTION

as to its Disclosure of its Business Practices and Controls over its Certification Authority Operations during the period from May 9th 2022 through May 8th 2023

The International Organization for the Security of Electronic Transactions ("**OISTE**") operates the Certification Authority (CA) services known as "**OISTE Global Trust Model**" hierarchy with its Root Certification Authorities as detailed in appendix A, and provides the following CA services:

- Subscriber registration
- Certificate renewal
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- Certificate suspension
- Certificate validation
- Subscriber key generation and management
- Subordinate CA certification
- Timestamp services

The management of **OISTE** is responsible for establishing and maintaining effective controls over its CA operations, including its CA business practices disclosure on its website [https://www.oiste.org/repository], 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 **OISTE's** Certification Authority operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

OISTE management has assessed its disclosures of its certificate practices and controls over its CA services. Based on that assessment, in **OISTE** management's opinion, in providing its Certification Authority (CA) services at its main and disaster recover datacentres in Switzerland, throughout the period May 9th 2022 through May 8th 2023, **OISTE** has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environment control practices in the document "OISTE Root Certification Practice Statement" as enumerated in Attachment B (separate CP & CPS documents)
- maintained effective controls to provide reasonable assurance that **OISTE** provides its services in accordance with its Certificate Policy(ies) and 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 **OISTE**); 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

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)
- Certificate Policy (CP, embedded in CPS document)

CA Business Practices Management

- Certificate Policy 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
- 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
- Certificate Validation

Subordinate CA Certificate Lifecycle Management Controls

- Subordinate CA Certificate Lifecycle Management

OISTE does not escrow its CA keys. Accordingly, our assertion does not extend to controls that would address those criteria.

Geneva, 19th June 2023

Philippe Doubre
OISTE President

Carlos Moreira
CEO

Appendix A: PKI Hierarchy in scope of the WebTrust audit

OISTE WISeKey Global Root GA CA

CA#	Subject	Issuer	serialNumber	Key Type	Sig Algorithm	notBefore	NotAfter	SKI	SHA256 Fingerprint
1	CN=OISTE WISeKey Global Root GA CA, OU=OISTE Foundation Endorsed, OU=Copyright (c) 2005, O=WISeKey, C=CH	CN=OISTE WISeKey Global Root GA CA, OU=OISTE Foundation Endorsed, OU=Copyright (c) 2005, O=WISeKey, C=CH	413D72C7F46B1F81437DF1D22854DF9A	rsaEncryption - 2048 bit	sha1WithRSAEncryption	Dec 11 16:03:44 2005 GMT	Dec 11 16:09:51 2037 GMT	B3:03:7E:AE:36:BC:B0:79:D1:DC:94:26:B6:11:BE:21:B2:69:86:94	41:C9:23:86:6A:B4:CA:D6:B7:AD:57:80:81:58:2E:02:07:97:A6:CB:DF:4F:FF:78:CE:83:96:B3:89:37:D7:F5

OISTE WISeKey Global Root GB CA

CA#	Subject	Issuer	serialNumber	Key Type	Sig Algorithm	notBefore	NotAfter	SKI	SHA256 Fingerprint
2	CN=OISTE WISeKey Global Root GB CA, OU=OISTE Foundation Endorsed, O=WISeKey, C=CH	CN=OISTE WISeKey Global Root GB CA, OU=OISTE Foundation Endorsed, O=WISeKey, C=CH	76B1205274F0858746B3F8231AF6C2C0	rsaEncryption - 2048 bit	sha256WithRSAEncryption	Dec 1 15:00:32 2014 GMT	Dec 1 15:10:31 2039 GMT	35:0F:C8:36:63:5E:E2:A3:EC:F9:3B:66:15:CE:51:52:E3:91:9A:3D	6B:9C:08:E8:6E:B0:F7:67:CF:AD:65:CD:98:B6:21:49:E5:49:4A:67:F5:84:5E:7B:D1:ED:01:9F:27:B8:6B:D6

OISTE WISeKey Global Root GC CA

CA#	Subject	Issuer	serialNumber	Key Type	Sig Algorithm	notBefore	NotAfter	SKI	SHA256 Fingerprint
3	CN=OISTE WISeKey Global Root GC CA, OU=OISTE Foundation Endorsed, O=WISeKey, C=CH	CN=OISTE WISeKey Global Root GC CA, OU=OISTE Foundation Endorsed, O=WISeKey, C=CH	212A560CAEDA0CAB4045BF2BA22D3AEA	id-ecPublicKey - 384 bit	ecdsa-with-SHA384	May 9 09:48:34 2017 GMT	May 9 09:58:33 2042 GMT	48:87:14:AC:E3:C3:9E:90:60:3A:D7:CA:89:EE:D3:AD:8C:B4:50:66	85:60:F9:1C:36:24:DA:BA:95:70:B5:FE:A0:DB:E3:6F:F1:1A:83:23:BE:94:86:85:4F:B3:F3:4A:55:71:19:8D

Appendix B: CP/CPS documents in scope of the WebTrust audit

CP Documents

CP for Personal Certificates

Version	Date	URL
1.2	21/Mar/22	https://cdn.wisekey.com/osite/uploads/20220518031631/OGTM-CP-Personal-Certificates.v1.2.pdf
1.3	30/Jan/23	https://cdn.wisekey.com/osite/uploads/20230130092201/OGTM-CP-Personal-Certificates.v1.3.pdf

CP for SSL Certificates

Version	Date	URL
1.3	3/Feb/22	https://cdn.wisekey.com/osite/uploads/20220518031632/OGTM-CP-SSL-Certificates.v1.3.pdf
1.4	30/Jan/23	https://cdn.wisekey.com/osite/uploads/20230130092159/OGTM-CP-SSL-Certificates.v1.4.pdf

CP for Device Certificates

Version	Date	URL
1.0	25/Feb/19	https://oiste.org/wp-content/uploads/OGTM-CP-Device-Certificates.v1.0.pdf

CPS Documents

Version	Date	URL
3.3	04/Oct/21	https://cdn.wisekey.com/osite/uploads/20211005021428/OGTM-OISTE-Foundation-CPS.v3.3-CLEAN.pdf
3.4	29/Sep/22	https://cdn.wisekey.com/osite/uploads/20220929143146/OGTM-OISTE-Foundation-CPS.v3.4-CLEAN.pdf

Appendix C: Disclosure of incidents during the period

No incidents in the audit period