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Independent Auditor's Report

Amstelveen, 13 December 2019

To the Management of Logius

We have examined the assertion by the management of Logius, regarding the disclosure of its key and certificate life cycle management business practices and the effectiveness of its controls over key and SSL certificate integrity, the authenticity of subscriber information, logical and physical access to CA systems and data, the continuity of key and certificate life cycle management operations, and development, maintenance and operation of systems integrity, based on the <u>WebTrust® Principles and Criteria for Certification Authorities – SSL Baseline</u> <u>Requirements with Network Security – Version 2.2</u>, during the period from 1 January 2017 through 31 December 2017, for the following CA's (referred to collectively as the Central Infrastructure of the Dutch Government PKI "PKIoverheid"):

Certificate Authority	SHA2-fingerprint
Root Certification Authority – G2 ("Staat der Nederlanden Root CA – G2")	66:8C:83:94:7D:A6:3B:72:4B:EC:E1:74:3C: 31:A0:E6:AE:D0:DB:8E:C5:B3:1B:E3:77:BB :78:4F:91:B6:71:6F
Subordinate Domain-CA for Organisations – G2 ("Staat der Nederlanden Organisatie CA – G2")	85:A8:F5:86:6D:D7:8D:F1:73:B0:66:73:17: C5:9B:2D:62:42:DE:59:EB:01:BB:2F:2E:8B: 9D:B7:14:B4:CA:27
Root Certification Authority – G3 ("Staat der Nederlanden Root CA – G3")	3C:4F:B0:B9:5A:B8:B3:00:32:F4:32:B8:6F: 53:5F:E1:72:C1:85:D0:FD:39:86:58:37:CF: 36:18:7F:A6:F4:28
Subordinate Domain-CA for Organisations- Services – G3 ("Staat der Nederlanden Organisatie Services CA – G3")	D9:58:1D:BD:E9:9B:39:EE:FF:6C:E5:C8: 0D:E1:65:0D:A0:C1:C8:A1:09:70:5E:D2:86: C5:3B:C9:5E:66:55:E4
Root Certificate Authority ("Staat der Nederlanden EV Root CA")	4D:24:91:41:4C:FE:95:67:46:EC:4C:EF:A6: CF:6F:72:E2:8A:13:29:43:2F:9D:8A:90:7A: C4:CB:5D:AD:C1:5A

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Certificate Authority	SHA2-fingerprint
Subordinate CA ("Staat der Nederlanden EV Intermediair CA")	DC:86:2A:3F:02:5E:F7:F2:52:FA:94:13:CB: 60:DE:25:E5:7E:6A:A7:E1:FB:1D:CA:7B: 59:D2:C2:21:71:06:EA
Subordinate Domain-CA for Organisations-	82:22:BC:4F:E7:A3:DD:CA:9E:F0:BF:0D:
Persons – G3 ("Staat der Nederlanden	68:2A:C8:88:79:9F:87:82:2D:15:33:2A:54:
Organisatie Persoon CA – G3")	C0:BF:DF:C6:85:4F:7B
Subordinate Domain-CA for Government-	2E:7A:0A:3B:0C:52:7E:B2:0C:52:25:3C:8D:
Citizen – G3 ("Staat der Nederlanden Burger	22:78:CA:10:81:36:A8:CA:3A:4E:A2:2D:A7:
CA – G3")	B5:9B:AC:90:65:0A
Subordinate Domain-CA for Autonomous	AD:49:3D:6E:85:EC:60:8A:B8:13:A8:87:BD:
Devices – G3 ("Staat der Nederlanden	C4:D4:19:6A:0B:C9:B3:3D:25:65:A7:FA:8A:
Autonome Apparaten CA – G3")	C4:30:F0:8A:99:A5
Subordinate Domain-CA for Government-	2F:2F:0C:84:4F:B3:36:A9:42:1A:B6:FA:36:
Citizen – G2 ("Staat der Nederlanden Burger	DC:DA:C3:BB:84:E0:38:4C:FF:5D:AD:51:
CA – G2")	11:3C:8C:A4:24:E6:A4
Subordinate Domain-CA for Autonomous	1B:17:10:02:64:24:7D:70:90:03:61:16:23:
Devices – G2 ("Staat der Nederlanden	8C:93:F4:58:53:ED:E5:AE:A6:F9:F1:A4:52:
Autonome Apparaten CA – G2")	4F:69:78:DD:89:54

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

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants, and accordingly, included:

- Obtaining an understanding of CA's key and SSL certificate life cycle management business
 practices and its controls over key and SSL certificate integrity, over the continuity of key and
 certificate life cycle management operations, and over the development, maintenance, and
 operation of systems integrity;
- Selectively testing transactions executed in accordance with disclosed SSL certificate life cycle management business practices;
- Testing and evaluating the operating effectiveness of the controls; and
- Performing such other procedures as we considered necessary in the circumstances.

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

Through the Central Infrastructure of the Dutch Government PKI "PKIoverheid", Logius provides certificates to subordinate Certification Services Providers (CSPs) in order to become part of the



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Dutch Government PKI "PKloverheid". The relative effectiveness and significance of specific controls at the Central Infrastructure of the Dutch Government PKI "PKIoverheid" 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 subordinate Certification Service Providers operating within the Dutch Government PKI and their individual subscriber and relying party locations. During our examination, we have performed no procedures to evaluate the effectiveness of controls at these locations.

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

As stated by Logius in the Management Assertion, the Root Certification Authority – G2 ("Staat der Nederlanden Root CA – G2") and the Subordinate Domain-CA for Organisations – G2 ("Staat der Nederlanden Organisatie CA – G2") do not provide revocation information via an Online Certificate Status Protocol (OCSP) service (the recently established G3 Root CA and Subordinate Domain-CA provide OCSP services).

In our opinion, for the period 1 January 2017 through 31 December 2017, Logius management's assertion, as set forth above, except for the effects of the matter discussed in the preceding paragraph, is fairly stated and in all material respects has:

- Disclosed its Certificate practices and procedures in its <u>Certification Practice Statement</u>, version 4.0, dated October 2016, including its commitment to provide SSL Certificates in conformity with the applicable CA/Browser Forum Guidelines and
- Maintained effective controls to provide reasonable assurance that:
 - subscriber information was properly collected, authenticated (for the registration activities _ performed by the CA, Registration Authority (RA) and subcontractor) and verified;
 - the integrity of keys and certificates it manages was established and protected throughout their life cycles;
 - logical and physical access to CA systems and data was restricted to authorized individuals:
 - the continuity of key and certificate management operations was maintained; and
 - CA systems development, maintenance and operations were properly authorized and performed to maintain CA systems integrity.

based on the WebTrust® Principles and Criteria for Certification Authorities - SSL Baseline Requirements with Network Security - Version 2.2.

The WebTrust seal of assurance for Certification Authorities on the Logius' website 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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This report does not include any representation as to the quality of the certification services of Logius beyond those covered by the WebTrust[®] for Certification Authorities – Baseline Requirements, nor the suitability of any services of Logius for any customer's intended purpose.

This WebTrust report has been re-issued due to an omission in the previous Logius management assertion regarding the scope of the WebTrust[®] for Certification Authorities – Baseline Requirements audit. Some of the intermediate CAs were omitted by accident in the management assertion, although at that time, were already audited against the relevant criteria and principles. No additional work has been performed since our independent auditor report (dated 2 February 2018) with respect to the scope and audit period covered by this report.

On behalf of KPMG Advisory N.V.

drs. ing. R.F. Koorn RE CISA Partner

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Logius Ministerie van Binnenlandse Zaken en Koninkrijksrelaties

Management Assertion Logius 2017

Date 13 December 2019

Assertion of Management as to its Disclosure of its Business Practices and its Controls Over its Certification Authority Operations during the period from 1 January 2017 through 31 December 2017

13 December 2019

The Dutch Governmental Shared Service Organisation for ICT "Logius" provides its SSL Certification Authority (CA) services through the central infrastructure of the Dutch Government. For the issuance of SSL – CA services, the central infrastructure of the Dutch Government consists:

Certificate Authority	SHA2-fingerprint
Root Certification Authority – G2	66:8C:83:94:7D:A6:3B:72:4B:EC:E1:74:
("Staat der Nederlanden Root CA	3C:31:A0:E6:AE:D0:DB:8E:C5:B3:1B:
- G2")	E3:77:BB:78:4F:91:B6:71:6F
Subordinate Domain-CA for	85:A8:F5:86:6D:D7:8D:F1:73:B0:66:73:
Organisations – G2 ("Staat der	17:C5:9B:2D:62:42:DE:59:EB:01:BB:2F:
Nederlanden Organisatie CA –	2E:8B:9D:B7:14:B4:CA:27
G2")	
Root Certification Authority – G3	3C:4F:B0:B9:5A:B8:B3:00:32:F4:32:B8:
("Staat der Nederlanden Root CA	6F:53:5F:E1:72:C1:85:D0:FD:39:86:58:
- G3")	37:CF:36:18:7F:A6:F4:28
Subordinate Domain-CA for	D9:58:1D:BD:E9:9B:39:EE:FF:6C:E5:C8:
Organisations-Services – G3	0D:E1:65:0D:A0:C1:C8:A1:09:70:5E:D2:
("Staat der Nederlanden	86:C5:3B:C9:5E:66:55:E4
Organisatie Services CA – G3")	
Root Certificate Authority – EV	4D:24:91:41:4C:FE:95:67:46:EC:4C:EF:
("Staat der Nederlanden EV Root	A6:CF:6F:72:E2:8A:13:29:43:2F:9D:8A:
CA")	90:7A:C4:CB:5D:AD:C1:5A
Subordinate Intermediate-CA for	DC:86:2A:3F:02:5E:F7:F2:52:FA:94:13:
EV certificates ("Staat der	CB:60:DE:25:E5:7E:6A:A7:E1:FB:1D:CA:
Nederlanden EV Intermediair	7B:59:D2:C2:21:71:06:EA
CA")	
Subordinate Domain-CA for	82:22:BC:4F:E7:A3:DD:CA:9E:F0:BF:
Organisations-Persons - G3	0D:68:2A:C8:88:79:9F:87:82:2D:15:33:
("Staat der Nederlanden	2A:54:C0:BF:DF:C6:85:4F:7B
Organisatie Persoon CA – G3")	
Subordinate Domain-CA for	2E:7A:0A:3B:0C:52:7E:B2:0C:52:25:3C:
Government-Citizen – G3 ("Staat	8D:22:78:CA:10:81:36:A8:CA:3A:4E:A2:
der Nederlanden Burger CA –	2D:A7:B5:9B:AC:90:65:0A
G3")	
Subordinate Domain-CA for	AD:49:3D:6E:85:EC:60:8A:B8:13:A8:87:
Autonomous Devices – G3	BD:C4:D4:19:6A:0B:C9:B3:3D:25:65:A7:
("Staat der Nederlanden	FA:8A:C4:30:F0:8A:99:A5
Autonome Apparaten CA – G3")	
Subordinate Domain-CA for	2F:2F:0C:84:4F:B3:36:A9:42:1A:B6:FA:
Government-Citizen – G2 ("Staat	36:DC:DA:C3:BB:84:E0:38:4C:FF:5D:
der Nederlanden Burger CA –	AD:51:11:3C:8C:A4:24:E6:A4
G2″)	
Subordinate Domain-CA for	1B:17:10:02:64:24:7D:70:90:03:61:16:
Autonomous Devices – G2	23:8C:93:F4:58:53:ED:E5:AE:A6:F9:F1:
("Staat der Nederlanden	A4:52:4F:69:78:DD:89:54
Autonome Apparaten CA – G2")	

The management of Logius has assessed the disclosure of its certificate practices and its controls over its SSL CA services. Based on that assessment, in Management's opinion, in providing its SSL CA services in the Netherlands, during the period from 1 January 2017 through 31 December 2017, Logius has:

- Disclosed its Certificate practices and procedures in its <u>Certification Practice Statement</u>, version 4.1, dated December 2017, including its commitment to provide SSL Certificates in conformity with the applicable CA/Browser Forum Guidelines and
- Maintained effective controls to provide reasonable assurance that:
 - subscriber information was properly collected, authenticated (for the registration activities performed by the CA, Registration Authority (RA) and subcontractor) and verified;
 - the integrity of keys and certificates it manages was established and protected throughout their life cycles;
 - logical and physical access to CA systems and data was restricted to authorized individuals;
 - the continuity of key and certificate management operations was maintained; and
 - CA systems development, maintenance and operations were properly authorized and performed to maintain CA systems integrity.

in accordance with the <u>WebTrust®</u> Principles and Criteria for Certification Authorities – SSL Baseline Requirements with Network Security – Version 2.2, including the following:

CA BUSINESS PRACTICES DISCLOSURE

CA SERVICE INTEGRITY

Key Generation Ceremony Certificate Content And Profile Certificate Request Requirements Verification Practices Certificate Revocation And Status Checking Employee And Third Parties Data Records Audit

CA ENVIRONMENTAL SECURITY

Within the G2 hierarchy Logius does not operate an OCSP responder to serve status information on the subordinate CAs. The rationale for this decision is that the inception of this environment predates the effective date of the Baseline Requirements by four years. Logius has incorporated OCSP functionality in the G3 CA, which is the successor of the G2 Root. In both environments status information is made available by means of Certificate Revocation Lists. This management assertion has been re-issued because of an omission in earlier management assertions regarding the scope of the WTBR audit. Some of our intermediate CAs were omitted in the management assertion by accident although they have been audited against the relevant WTBR criteria and principles.

For approval:

Y.L (Yvonne) van der Brugge-Wolring EM The general director Logius