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Independent Assurance Report

To the management of Telia Company AB (Telia):

Scope

We have been engaged, in a reasonable assurance engagement, to report on Telia management's statement that for its Certification Authority (CA) operations in Finland and Sweden, throughout the period 1 April 2017 through 31 March 2018 for its CAs as enumerated in Attachment A, Telia has:

- disclosed its extended validation ("EV SSL") certificate life cycle management business practices in its:
  - Telia Root Certificate Policy and Certification Practice Statement v2.2;
  - Telia Server Certificate Policy and Certification Practice Statement v2.1; and
  - Telia Production Certification Practice Statement v2.5

  including its commitment to provide EV SSL certificates in conformity with the CA/Browser Forum Guidelines on the Telia website, and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that
  - the integrity of keys and EV SSL certificates it manages is established and protected throughout their life cycles; and
  - EV SSL subscriber information is properly authenticated (for the registration activities performed by Telia)

in accordance with the WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.

Certification Authority's responsibilities

Telia's management is responsible for its statement, including the fairness of its presentation, and the provision of its described services in accordance with the WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.

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.

Ernst & Young Godkendt Revisionspartnerselskab applies International Standard on Quality Control 1[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 statement based on our procedures. We conducted our procedures in accordance with International Standards on Assurance Engagements 3000

[1] ISQC 1, Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements

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 statement is fairly stated, and, accordingly, included:

(1) obtaining an understanding of Telia's EV SSL certificate life cycle management business practices, including its relevant controls over the issuance, renewal, and revocation of EV SSL certificates;

(2) selectively testing transactions executed in accordance with disclosed EV SSL certificate life cycle management 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.

Relative effectiveness of controls

The relative effectiveness and significance of specific controls at Telia 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, Telia'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, throughout the period 1 April 2017 to 31 March 2018, Telia management's statement, as referred to above, is fairly stated, in all material respects, in accordance with the WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.

This report does not include any representation as to the quality of Telia's services beyond those covered by the WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6, nor the suitability of any of these Telia's services for any customer's intended purpose.

Copenhagen June 29, 2018

Ernst & Young P/S
Godkendt Revisionspartnerselskab

Claus Thaudahl Hansen
Partner, State Authorised Public Accountant
MNE no 19675

Juha Sunila
Senior Manager, CISA, CISSP

Attachment A: List of CAs in Scope

The following CAs were in scope for the EV SSL engagement:

CA #	Cert. #	Subject	Issuer	Serial	Key Algorithm and Size	Digest Algorithm	Not Before	Not After	Subject Key Identifier	SHA1 Fingerprint	Other information
1	1	CN = Sonera Class2 CA O = Sonera C = FI	Self-signed	1d	RSA 2048 bits	sha1RSA	6 April 2001	6 April 2021	4a a0 aa 58 84 d3 5e 3c	37 f7 6d e6 07 7c 90 c5 b1 3e 93 1a b7 41 10 b4 f2 e4 9a 27	
2	1	CN = TeliaSonera Root CA v1 O = TeliaSonera	Self-signed	00 95 be 16 a0 f7 2e 46 f1 7b 39 82 72 fa 8b cd 96	RSA 4096 bits	sha1RSA	18 October 2007	18 October 2032	f0 8f 59 38 00 b3 f5 8f 9a 96 0c d5 eb fa 7b aa 17 e8 13 12	43 13 bb 96 f1 d5 86 9b c1 4e 6a 92 f6 cf f6 34 69 87 82 37	
	2	CN = TeliaSonera Root CA v1 O = TeliaSonera	Sonera Class2 CA	00 87 ed 2e 1a 28 26 4a c5 19 aa 3a eb b9 0d a2 cb	RSA 4096 bits	sha256RSA	5 December 2014	5 April 2021	f0 8f 59 38 00 b3 f5 8f 9a 96 0c d5 eb fa 7b aa 17 e8 13 12	9f f6 1d eb b4 ed 26 3b 4d be c7 79 87 ca 49 3c 6c c9 3a a4	
	3	CN = TeliaSonera Root CA v1 O = TeliaSonera	Sonera Class2 CA	00 d1 e0 3e 5b 48 ed c7 9e 09 3f 40 de e1 61 c3 8b	RSA 4096 bits	sha1RSA	18 October 2007	17 October 2019	f0 8f 59 38 00 b3 f5 8f 9a 96 0c d5 eb fa 7b aa 17 e8 13 12	f4 67 16 7f 48 8b c8 34 66 38 88 a6 9a db 4c b9 74 16 d6 06	
3	1	CN = TeliaSonera Extended Validation SSL CA v1 O = TeliaSonera C = FI	TeliaSonera Root CA v1	00 99 38 b8 d6 06 28 ea 59 2e 26 01 0f d2 66 e8 11	RSA 4096 bits	sha256RSA	16 March 2015	17 October 2032	08 e4 fa 72 d5 43 3b c2 5c 24 9b 95 92 40 f3 d0 9f 7a a8 30	f1 f5 48 b0 1e b2 66 fa 95 c3 0f 79 c3 c9 1f 58 ea 3d f1 8c	

TELIA'S MANAGEMENT STATEMENT

Telia Company AB (Telia) operates the Certification Authority (CA) services as enumerated in Attachment A, and provides Extended Validation SSL ("EV SSL") CA services.

The management of Telia is responsible for establishing and maintaining effective controls over its EV SSL CA operations, including its EV SSL CA business practices disclosure on its website, EV SSL key lifecycle management controls, and EV SSL certificate lifecycle management controls. These controls contain monitoring mechanisms, and actions to be 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 provide only reasonable assurance with respect to Telia's EV SSL Certification Authority operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

Telia management has assessed its disclosures of its certificate practices and controls over its EV SSL CA services. Based on that assessment, in Telia management's opinion, in providing its EV SSL Certification Authority (CA) services in Finland and Sweden, throughout the period 1 April 2017 to 31 March 31 2018, Telia has:

- disclosed its extended validation ("EV SSL") certificate life cycle management business practices in its:
  - Telia Root Certificate Policy and Certification Practice Statement v2.2;
  - Telia Server Certificate Policy and Certification Practice Statement v2.1; and
  - Telia Production Certification Practice Statement v2.5

  including its commitment to provide EV SSL certificates in conformity with the CA/Browser Forum Guidelines on the Telia website, and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that
  - the integrity of keys and EV SSL certificates it manages is established and protected throughout their life cycles; and
  - EV SSL subscriber information is properly authenticated (for the registration activities performed by Telia)

in accordance with the WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.

Stockholm, 29 June 2018

Telia Company AB

Shahryar Khan
Head of GSO NW Transport Automation and Systems

Attachment A: List of CAs in Scope

The following CAs provide EV SSL services:

CA #	Cert. #	Subject	Issuer	Serial	Key Algorithm and Size	Digest Algorithm	Not Before	Not After	Subject Key Identifier	SHA1 Fingerprint
1	1	CN = Sonera Class2 CA O = Sonera C = FI	Self-signed	1d	RSA 2048 bits	sha1RSA	6 April 2001	6 April 2021	4a a0 aa 58 84 d3 5e 3c	37 f7 6d e6 07 7c 90 c5 b1 3e 93 1a b7 41 10 b4 f2 e4 9a 27
2	1	CN = TeliaSonera Root CA v1 O = TeliaSonera	Self-signed	00 95 be 16 a0 f7 2e 46 f1 7b 39 82 72 fa 8b cd 96	RSA 4096 bits	sha1RSA	18 October 2007	18 October 2032	f0 8f 59 38 00 b3 f5 8f 9a 96 0c d5 eb fa 7b aa 17 e8 13 12	43 13 bb 96 f1 d5 86 9b c1 4e 6a 92 f6 cf f6 34 69 87 82 37
	2	CN = TeliaSonera Root CA v1 O = TeliaSonera	Sonera Class2 CA	00 87 ed 2e 1a 28 26 4a c5 19 aa 3a eb b9 0d a2 cb	RSA 4096 bits	sha256RSA	5 December 2014	5 April 2021	f0 8f 59 38 00 b3 f5 8f 9a 96 0c d5 eb fa 7b aa 17 e8 13 12	9f f6 1d eb b4 ed 26 3b 4d be c7 79 87 ca 49 3c 6c c9 3a a4
	3	CN = TeliaSonera Root CA v1 O = TeliaSonera	Sonera Class2 CA	00 d1 e0 3e 5b 48 ed c7 9e 09 3f 40 de e1 61 c3 8b	RSA 4096 bits	sha1RSA	18 October 2007	17 October 2019	f0 8f 59 38 00 b3 f5 8f 9a 96 0c d5 eb fa 7b aa 17 e8 13 12	f4 67 16 7f 48 8b c8 34 66 38 88 a6 9a db 4c b9 74 16 d6 06
3	1	CN = TeliaSonera Extended Validation SSL CA v1 O = TeliaSonera C = FI	TeliaSonera Root CA v1	00 99 38 b8 d6 06 28 ea 59 2e 26 01 0f d2 66 e8 11	RSA 4096 bits	sha256RSA	16 March 2015	17 October 2032	08 e4 fa 72 d5 43 3b c2 5c 24 9b 95 92 40 f3 d0 9f 7a a8 30	f1 f5 48 b0 1e b2 66 fa 95 c3 0f 79 c3 c9 1f 58 ea 3d f1 8c