

Audit Attestation

Digital and Population Data Services Agency ETSI Assessment 2022

Date: 16.07.2022


Provider: Digital and Population Data Services Agency
Service(s): Trust Service Provider Issuing EU Qualified Certificates

Registration Number: DSC.1147

Conformity datenschutz cert GmbH
Assessment Body Konsul-Smidt-Straße 88a
28217 Bremen, Germany
Contact: office@datenschutz-cert.de

Accreditation
Information: <http://www.dakks.de/as/ast/d/D-ZE-16077-01-00.pdf>

Bremen, 16.07.2022



Dr. Sönke Maserberg
Reviewer



Klaus-Werner Schröder
Lead Auditor

Conformity Assessment Body

- 1 Name: datenschutz cert GmbH
VAT No.: DE 260 557 462
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The Certificate of Accreditation is available at
<http://www.dakks.de/as/ast/d/D-ZE-16077-01-00.pdf>
Head of Conformity Assessment Body: Klaus-Werner Schröder
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National Accreditation Body

- 2 Name: Deutsche Akkreditierungsstelle GmbH
Address: Spittelmarkt 10 10117 Berlin, Germany
Internet: www.dakks.de

Trust Service Provider Assessed

- 3 Name: Digital and Population Data Services Agency (Digi- ja väestötietovirasto)
Address: Lintulahdenkuja 2, 00530 Helsinki, Finland
www.dvv.fi

Audit Details

- 4 Requirements: ETSI EN 319 401, ETSI EN 319 411-1, ETSI EN 319 411-2
- 5 Kind of audit: stage 1 audit, stage 2 audit
- 6 Goal of audit: assessment of conformity
- 7 The full audit (stages 1 and 2) is based on
 - documentation provided by the organization assessed,
 - interviews with employees and management,
 - on-site audit.

Summary

- 8 The audit was performed as a full annual audit of the trust service provider's services. The premises of the trust service provider in 00530 Helsinki, Finland have been audited on-site. The on-site audit (stage 2) was conducted after successful completion of stage 1 audit. It took place from 30.05.2022 to 13.07.2022 and covered the period from 13.07.2021 to 12.07.2022.

- 9 The audit was performed according to the European Standards ETSI EN 319 401 (C), ETSI EN 319 411-1 (B), and ETSI EN 319 411-2 (A).
- 10 The trust services audited are described in the following policy and practice documents of the trust service provider:
- [1] Digi- ja väestötietovirasto, Certificate Policy for Population Register Centre's citizen certificate, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.202)
 - [2] Digi- ja väestötietovirasto, Certificate Policy for Population Register Centre's citizen certificate, v1.1, 01.01.2017 (OID: 1.2.246.517.1.10.22)
 - [3] Digi- ja väestötietovirasto, Certificate Policy for Digital and Population Data Services Agency's citizen certificate, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.302, 1.2.246.517.1.10.352)
 - [4] Digi- ja väestötietovirasto, Varmennepolitiikka (CP) for Population Register Centre's organisation certificate, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.203)
 - [5] Digi- ja väestötietovirasto, Varmennepolitiikka (CP) for Population Register Centre's organisation certificate, v1.2, 14.09.2017 (OID: 1.2.246.517.1.10.23)
 - [6] Digi- ja väestötietovirasto, Certificate Policy for Digital and Population Data Services Agency's organisation certificate, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.353)
 - [7] Digi- ja väestötietovirasto, Certificate Policy for the Population Register Centre's server certificates, v1.3, 14.06.2021 (OID: 1.2.246.517.1.10.34)
 - [8] Digi- ja väestötietovirasto, Certificate Policy for the Population Register Centre's service certificates, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.205)
 - [9] Digi- ja väestötietovirasto, Certificate Policy for Digital and Population Data Services Agency's service certificates, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.305, 1.2.246.517.1.10.335)
 - [10] Digi- ja väestötietovirasto, Certificate Policy for Temporary Certificate, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.204)
 - [11] **Digi- ja väestötietovirasto, Certificate** Policy for Temporary Certificate, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.304)
 - [12] Digi- ja väestötietovirasto, Certificate Policy for social welfare and health care professionals' certificate, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.206)
 - [13] Digi- ja väestötietovirasto, Certificate Policy for social welfare and health care professionals' certificate, v1.1, 01.01.2017 (OID: 1.2.246.517.1.10.7)
 - [14] Digi- ja väestötietovirasto, Certificate Policy for social welfare and health care professionals' certificate, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.306, 1.2.246.517.1.10.356)
 - [15] Digi- ja väestötietovirasto, Certificate policy For Population Register Centre's Service Certificate for the Social Welfare and Healthcare Sector, v1.4, 14.06.2021 (OID: 1.2.246.517.1.10.10)

- [16] Digi- ja väestötietovirasto, Certificate Policy for Population Register Centre's service certificate for the social welfare and healthcare sector, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.208)
- [17] Digi- ja väestötietovirasto, Certificate Policy for Digital and Population Data Services Agency's service certificate for the social welfare and healthcare sector, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.308, 1.2.246.517.1.10.358)
- [18] Digi- ja väestötietovirasto, Certificate Policy for the temporary certificate of social welfare and healthcare professionals, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.207)
- [19] Digi- ja väestötietovirasto, Certificate Policy for the temporary certificate of social welfare and healthcare professionals, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.307, 1.2.246.517.1.10.357)
- [20] Digi- ja väestötietovirasto, Certification Practice Statement for Population Register Centre's citizen certificate stored on an ID card, v. 1.0, 03.05.2018 (OID: 1.2.246.517.1.10.202.1)
- [21] Digi- ja väestötietovirasto, Certification Practice Statement for Population Register Centre's citizen certificate stored on an ID card, v. 1.2, 14.09.2017 (OID: 1.2.246.517.1.10.22.1)
- [22] Digi- ja väestötietovirasto, Certification Practice Statement for Digital and Population Data Services Agency's citizen certificate stored on an ID card, v. 1.0, 01.06.2021 (OID: 1.2.246.517.1.10.302.1, 1.2.246.517.1.10.351.1)
- [23] Digi- ja väestötietovirasto, Certification Practice Statement for organisation certificates, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.203.1)
- [24] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for organisation certificates, certificate distribution under agreement, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.203.2)
- [25] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for non-regulated healthcare worker's certificate, v1.0, 03.05.2018 (OID 1.2.246.517.1.10.203.3)
- [26] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for service provider person's certificate, v1.0, 03.05.2018 (OID 1.2.246.517.1.10.203.4)
- [27] Digi- ja väestötietovirasto, Certification Practice Statement for organisation certificates, v1.2, 14.09.2017 (OID: 1.2.246.517.1.10.23.1)
- [28] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for organisation certificates, certificate distribution under agreement, v1.2, 14.09.2017 (OID: 1.2.246.517.1.10.23.2)
- [29] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for non-regulated healthcare worker's certificate, v1.1, 01.01.2017 (OID 1.2.246.517.1.10.23.3)
- [30] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for service provider person's certificate, v1.1, 01.01.2017 (OID 1.2.246.517.1.10.23.4)

- [31] Digi- ja väestötietovirasto, Certification Practice Statement for Digital and Population Data Services Agency's organisation certificates, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.303.1, 1.2.246.517.1.10.353.1)
- [32] Digi- ja väestötietovirasto, Certification Practice Statement for Digital and Population Data Services Agency's organisation certificates, certificate distribution under agreement, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.303.2, 1.2.246.517.1.10.353.2)
- [33] Digi- ja väestötietovirasto, Certification Practice Statement for Digital and Population Data Services Agency's non-regulated healthcare worker's certificate, v1.0, 01.06.2021 (OID 1.2.246.517.1.10.303.3, 1.2.246.517.1.10.353.3)
- [34] Digi- ja väestötietovirasto, Certification Practice Statement for Digital and Population Data Services Agency's service provider person's certificate, v1.0, 01.06.2021 (OID 1.2.246.517.1.10.303.4, 1.2.246.517.1.10.353.4)
- [35] Digi- ja väestötietovirasto, Certification Practice Statement for Temporary Certificate, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.204.1)
- [36] Digi- ja väestötietovirasto, Certification Practice Statement for Temporary Certificate, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.304.1, 1.2.246.517.1.10.354.1)
- [37] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for social welfare and health care professionals' certificate, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.206.1)
- [38] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for social welfare and health care professionals' certificate, v1.1, 01.01.2017 (OID: 1.2.246.517.1.10.7.1)
- [39] Digi- ja väestötietovirasto, Varmennuskäytäntö (CPS) for social welfare and health care professionals' certificate, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.306.1, 1.2.246.517.1.10.356.1)
- [40] Digi- ja väestötietovirasto, Certification Practice Statement for the temporary certificate of social welfare and healthcare professionals, v1.0, 03.05.2018 (OID: 1.2.246.517.1.10.207.1)
- [41] Digi- ja väestötietovirasto, Certification Practice Statement for the temporary certificate of social welfare and healthcare professionals, v1.0, 01.06.2021 (OID: 1.2.246.517.1.10.307.1, 1.2.246.517.1.10.357.1)
- [42] Digi- ja väestötietovirasto, Certification Practice Statement for the Population Register Centre's server certificates, v1.3, 14.06.2021 (OID: 1.2.246.517.1.10.34.1)
- [43] Digi- ja väestötietovirasto, Certification practice statement for Population Register Centre's server certificate for e-service use, v1.3, 14.06.2021 (OID: 1.2.246.517.1.10.34.2)
- [44] Digi- ja väestötietovirasto, Certification Practice Statement for the Population Register Centre's wellbeing application services server certificates, v1.4, 14.06.2021 (OID: 1.2.246.517.1.10.34.4)
- [45] Digi- ja väestötietovirasto, Certification Practice Statement for Population Register Centre's server certificates, v. 1.0, 03.05.2018 (OID: 1.2.246.517.1.10.205.1)

- [46] Digi- ja väestötietovirasto, Certification Practice Statement for Population Register Centre's server certificate for e-service use, v. 1.0, 03.05.2018 (OID: 1.2.246.517.1.10.205.2)
- [47] Digi- ja väestötietovirasto, Certification Practice Statement for Population Register Centre's wellbeing application services server certificates, v. 1.0, 03.05.2018 (OID: 1.2.246.517.1.10.205.4)
- [48] Digi- ja väestötietovirasto, Certification Practice Statement for DPDSA server certificates for the social welfare and healthcare sector, v. 1.0, 01.06.2021 (OID: 1.2.246.517.1.10.308.1, 1.2.246.517.1.10.358.1)
- [49] Digi- ja väestötietovirasto, Certification Practice Statement for DPDSA server certificates for service use in the social welfare and healthcare sector, v. 1.0, 01.06.2021 (OID: 1.2.246.517.1.10.308.2, 1.2.246.517.1.10.358.2)
- [50] Digi- ja väestötietovirasto, Certification practice statement For PRC Server Certificates for the Social Welfare and Healthcare Sector, v1.4, 14.06.2021 (OID: 1.2.246.517.1.10.10.1)
- [51] Digi- ja väestötietovirasto, Certification practice statement For PRC Server Certificates for service use in the Social Welfare and Healthcare Sector, v1.4, 14.06.2021 (OID: 1.2.246.517.1.10.10.2)
- [52] Digi- ja väestötietovirasto, Certification Practice Statement for PRC server certificates for the social welfare and healthcare sector, v. 1.0, 03.05.2018 (OID: 1.2.246.517.1.10.208.1)
- [53] Digi- ja väestötietovirasto, Certification Practice Statement for PRC server certificates for service use in the social welfare and healthcare sector, v. 1.0, 03.05.2018 (OID: 1.2.246.517.1.10.208.2)

Issuing Certificates signed by VRK Gov. Root CA

- 11 The full annual audit covered the service provided under the CA certificate:
 - Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI
 - Serial No.: 01 aa 97 (hex)
 - Valid from: 7. December 2015 10:12:34
 - Valid to: 18. December 2023 14:51:08
 - Certification Authority: CN = VRK CA for Service Providers - G3, OU = Palveluvarmenteet, O = Vaestorekisterikeskus CA, C = FI
 - Information on Algorithm: sha256RSA
 - Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 b4 af ae 91 c5 27 d9 a5 d7 a1 c5 41 97 1c dc 35 fo a4 01
 8d 80 e7 95 82 48 ef 9e 8c 09 3c 14 29 50 83 b6 a4 c9 1c 26 19 a7 fd f8 57 05 3f 66
 61 3c 1f b3 a8 70 ce 00 a2 ob c2 f3 4d bb 33 5a 44 d2 65 5d 75 4f 76 1c 8b be oc 6e
 25 df 4e 34 35 39 9e 59 f5 55 fc 65 dc 2f 60 oe 38 b4 59 a3 07 13 1f 3c 9c af ff a2 5c
 72 14 44 9d c2 41 34 db 08 6d 2b eb 52 46 49 5e 5b 19 74 06 5d od 9f 86 5f fd a2 f7
 77 b8 60 38 7f 6a fo fo 43 81 81 d6 eb 16 d4 fo b2 49 fd 13 9e fe 30 27 fb 18 f1 68
 f6 ee 3a e3 9d 88 52 od a7 2b 6d 52 65 37 e2 c5 de f4 79 76 e6 48 a1 ce 67 bo o6
 5a 4d 38 54 99 ed 7d 1b 2a cc od 38 aa ao 61 14 5c 10 e3 db d5 89 bb c2 56 45 3d
 b6 e5 45 84 b2 72 12 8c c3 5a ff d4 c5 f2 20 39 5a 50 a7 b4 a9 95 b9 1f 6e 63 f8 o2
 d3 a5 35 3e 18 e9 c2 a9 49 be 33 b1 eb 4b ec 69 6c 2b 14 aa 74 6d 7d 93 5c 8c f6 eo
 dd d2 28 3f fg b6 9a be 6e 2f oe 8f 22 ae 49 13 57 e4 f9 d8 5b 01 2a 51 c5 2b 3b eo
 bd 85 56 be f8 51 6c e8 d5 39 6c 3f 85 43 3a fd 26 a7 cb 21 6e 53 c1 86 34 a6 16 cf 7f
 cb 71 79 94 3b 29 2d 00 d3 de 19 c5 9d c4 6f 5e 08 33 56 de b7 4a 31 6d 9e 7f e9 40
 63 ff 32 ob 08 97 45 32 18 70 80 2f 52 82 af 23 bb b4 e1 6f 8b a7 65 db 3c e8 bb ba
 dd cc 98 f4 bd 02 9a e5 d3 1f f2 6e a3 71 42 ed 15 d8 54 8d a4 41 b2 1f e8 e4 8a d2
 60 69 4f 2a cc 22 eo 6e 6e 97 fb 93 91 ef a6 85 bd 66 19 34 d5 73 71 bo be 13 f2 c1
 51 dd e7 79 5b 44 cc 00 c4 61 c6 04 57 6a 23 7c fg e1 98 2b 87 ef 24 9e 69 69 ca 30
 8f e5 bo 49 c5 13 fb 77 f6 30 15 6d f9 f8 39 78 01 e8 67 47 14 63 4b 47 2e 5d 3c 3c 41
 41 a5 79 70 13 04 94 72 77 76 7f d4 5f 04 a8 a9 02 03 01 00 01

Thumbprint of the certificate (SHA256):

b750a125f5fb285bfe5cc1ff2d97138875dbcec75ab678124c270e26d8c19a8e

- 12 This service is referred to as “Population Register Centre’s server certificates”. The service issues certificates for website authentication. The documents governing the service are identified above, cf. [7], [42], [43], and [44].
- 13 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Serial No.: 01 af 8b (hex)

Valid from: 7. December 2015 10:21:01

Valid to: 18. December 2023 14:51:08

Certification Authority: CN = VRK CA for Social Welfare and Health Care Service Providers, OU = Sosiaali- ja terveydenhuollon palveluvarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha256RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 c4 66 57 fd 60 b9 8f d3 6c 64 68 f1 0a 26 41 37 85 fe
 db c9 8b 9f f5 4d a4 68 4d 80 5f 59 ef e4 a3 45 eo d1 da 07 fb 9c od 5d 9b 02 58

6e a3 4d b6 86 05 ec 73 11 od ob f1 c5 de ac 19 a3 9c 7b 6b f3 4b d6 eb 08 8c c3 e5
 8d 6d 49 f8 9e 28 2a 31 1b 58 f8 7e 7e 82 24 4a 8b 7e 3d 9e 4e 0a e5 4d 69 a6 3e
 58 83 f2 8e 5e 04 eg 7e 6a 02 e6 fa ad 85 26 aa c9 6d ba b5 79 48 82 28 8a 6d bo
 6b 5a 66 60 9a 3b fa fb cf f5 86 1a 44 69 e3 3c 82 77 36 3c ee 6d od c1 e3 87 27 24
 8b ee 95 74 41 43 f5 do 8e a1 06 dc c9 25 7c 8a 05 a5 54 cc 48 a4 9c 09 70 9e 94
 6b cd d8 1d c4 9a 5e 90 06 19 20 27 fe d8 6a 45 e7 6a 53 ac bo co 9c 6a db 15 23
 47 1c c6 5d a4 93 ef a4 00 47 56 72 7e 6b 56 d2 od 1d cb 29 ad eg cc b7 ce 28 5a 96
 58 14 oe 51 42 fc db oo 7b 5a c3 ce b8 d5 e1 ab 9c 2c c1 78 oa 73 do 41 2b 73 80 8e
 6a 55 58 4f 92 64 of db f6 c5 18 b2 9d e3 42 26 e4 b4 e7 c1 5d ce 5c 7d 56 oo 27 75
 ce a6 f9 86 ed ba 05 fb ae 09 33 62 98 ca 21 2c 96 c9 e2 d7 fe 1c fe 66 53 04 11 df
 e7 51 80 4f f9 f5 56 f1 d2 1c ba oo 73 9e 46 ae bo f5 5b bo 1e 04 2d 51 54 03 98 1e
 f6 1b fo 2d ef e6 2d 72 bd 1a ad 79 98 8e 83 f7 8e db a4 eg 1a e7 99 5a 7d 88 b8 ca
 41 ff c8 3b 45 d5 c1 38 03 eo 83 2a e2 84 53 1e 32 6a b5 b1 ac c9 51 51 29 97 12 98 f2
 13 07 6f 3a 8c 3e 05 eo 9c 5e 59 ad db 98 b9 4c 90 8f 3e e4 8a b2 21 80 55 65 2e
 40 8c 31 05 ee 30 d9 1d f9 cc 8d 05 ba dc a8 4e a9 f2 d5 70 41 41 50 72 37 49 3f 09
 oo of 54 e2 5b 37 91 ao 26 70 9b ee oe 08 42 ea 76 d8 f4 1a 88 25 b2 16 a9 af 4e
 eg 6a 46 9d 28 20 06 d5 05 42 5a ef 02 3a ad d9 23 cf 06 10 d6 df ag d3 02 03 01
 oo 01

Thumbprint of the certificate (SHA256):

7dca925e39e2a45c8e61faeb7d9a8701dbaod29ffee9797465207cfaofcb4bo1

- 14 This service is referred to as “Population Register Centre’s Service Certificate for the Social Welfare and Healthcare Sector”. The service issues certificates for website authentication. The documents governing the service(s) are identified above, cf. [15], [50], and [51].
- 15 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Serial No.: 01 aa 95 (hex)

Valid from: 21. November 2013 13:14:33

Valid to: 17. December 2023 23:59:59

Certification Authority: CN = VRK Gov. CA for Citizen Qualified Certificates - G2, OU = Valtion kansalaisvarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha1RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 d4 aa 75 b2 e7 1a f7 a4 70 58 62 96 a9 1a c5 55 28 29
 6e 17 db bf f8 57 3c 02 3f 9f ec 40 74 82 36 ed 4d 62 c9 21 57 ce 95 9a e5 f7 fc 50
 65 a1 1c f8 18 c5 b4 31 64 47 08 dd ec 77 d9 56 23 c2 dd c9 63 de 7f 60 7e 19 fe 2a

e1 25 fd 8f de 47 dd ad 9f 29 3a fo 42 12 of 29 36 2e oe 5d dd f8 32 c8 86 dc ea do
 2e oa 77 23 3a f5 48 70 82 eo b2 6c 8b od of 17 16 1d e8 ob 74 fb f2 23 7c 85 59 71
 e6 75 70 ob cf 89 53 fb f8 58 aa 15 f2 fb 65 97 1d c1 6f cb ca o4 d6 6e a1 30 ff 56 76
 fo 50 22 ao 15 93 51 cb e3 2f e8 o3 d6 4b 9d bb 98 1c 57 a1 dc 7b 98 93 ac o9 33 de
 5d 40 b6 21 d7 1e 94 e4 2f 1a 39 6a 9a 3c aa 71 a3 fd 80 90 o5 69 6b e7 12 54 62 23
 b2 6d de c5 d3 o3 co 22 54 38 67 e2 51 b2 10 o2 9a e8 23 d9 62 d3 f5 9b 51 4b o2 76
 6a 4f 2a a7 3e a8 61 86 b4 d1 fd 76 df df e7 42 59 bo e6 21 a2 3f 36 aa 4e oc e8 50
 o4 c8 eb 65 52 1d d5 c3 84 30 4a 4d f6 50 22 ce 91 26 3f e5 69 ad 58 ac 3f 95 24 6e
 1f 27 37 47 f8 43 o8 30 21 c7 4a df 77 65 48 12 d3 41 fe 2c of 49 4d ae 94 fo df 38 fe
 od do f4 3f 59 31 24 7c 23 b3 12 52 31 62 8a 1a 8c c1 o9 46 oa cb 65 47 2b d4 4b 2c
 29 a3 59 aa 98 b5 c9 1f e3 e3 bc 12 of 77 55 8b 5c o5 77 o6 2a 8d ed 74 a3 7d 35 f8
 4b 32 32 of e1 db 3f od c6 dd 29 36 cf 2b b9 56 oc 1f 46 6f 2b 2d 87 oa 4d 14 6a 97
 c4 3b 3f b1 ob b5 72 ca 64 6d 46 cd 6a 6b 96 c6 52 90 b9 a4 ca fc ee 90 33 64 o2
 ed 6b 12 1e ee ea fg e4 28 98 2e 39 e4 o3 c4 fo 8d fe 11 f9 65 58 d6 b4 c9 26 dd 58
 48 78 de 53 a4 e8 f8 b9 f2 29 64 b1 f4 e2 be 38 a6 95 af f7 58 15 9e 68 31 f1 41 b2
 22 of bf 70 26 50 b3 d1 5b 42 83 67 7f e1 f7 fc 95 o2 o3 o1 oo o1

Thumbprint of the certificate (SHA256):

8263c4ec2befeb26bdd833f77873cc8ec59d934a16282c2b0848cda2afda8eb5

- 16 This service is referred to as “Citizen Qualified Certificates – G2”. The service issues certificates for authentication and nonrepudiation, where the private keys reside in a secure signature creation device. The documents governing the service(s) are identified above, cf. [2] and [21].
- 17 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Serial No.: 01 a6 55 (hex)

Valid from: 27. October 2010 13:41:26

Valid to: 17. December 2023 23:59:59

Certification Authority: CN = VRK CA for Healthcare Professionals Qualified Certificates, OU = Terveystieteiden ammattivarmenteet, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Information on Algorithm: sha1RSA

Public key (ASN.1-notation): 2048 bits

30 82 01 0a 02 82 01 01 00 af e1 db 88 83 21 c5 bb d3 ee 7e e5 17 80 e9 9c ed 48 09
 15 c4 52 57 8d e9 ea 3f fe cc e6 6e f3 8d 7c d6 89 b6 32 a5 cf aa d8 18 c9 47 d6 6d
 c3 35 59 42 9f 94 55 1e 45 db f6 93 42 c5 76 28 a8 15 74 d1 13 bf 47 2e e7 13 2d 1d 07
 f6 55 95 c9 3c do 25 o8 1e d2 b9 b1 80 bd 44 a7 b4 61 26 b7 c5 o2 80 e7 18 4f 15 cc

ba c3 19 84 ea 37 aa b3 4a f7 d9 2f aa bd b5 14 e5 57 a3 1d 37 d4 f9 c4 eo 87 o2 e2
 13 45 cb co 14 e3 2b 97 17 f1 2f 20 18 7b 19 be o2 54 bc 80 ff 83 de 25 e8 o6 8e ob
 7c 4e 55 27 b3 19 65 b6 54 98 9c 31 49 75 9f f7 4d a6 34 2c ca d7 a7 d3 74 d1 8c 65
 88 e5 38 36 ef o3 59 bc 66 do 66 3c 2e 5d 69 1b f8 dc co 1b b9 5c ab 85 b3 o9 bf
 52 a7 f7 46 f8 6e 40 o1 e5 3f 25 6b 7b 7e 66 9b 43 1c 45 4a 3b fb b2 od 24 ao 90 b1
 5a 44 5d 85 79 od 44 bd f7 da a4 50 63 o2 o3 o1 oo o1

Thumbprint of the certificate (SHA256):

c273fado43930eb4f5f5202f5a92ead935157fdd73e29f807a95boe42c16of99

- 18 This service is referred to as “Healthcare Professionals Qualified Certificates”. The service issues certificates for nonrepudiation where the private signing keys reside in a secure signature creation device. The documents governing the service(s) are identified above, cf. [13] and [38].
- 19 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Serial No.: 01 aa 96 (hex)

Valid from: 21. November 2013 15:20:58

Valid to: 17. December 2023 23:59:59

Certification Authority: CN = VRK CA for Qualified Certificates - G2, OU = Organisaatiovarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha1RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 be d9 c9 cc 73 ob 39 4b 8d b4 69 aa 1e 12 cf d7 c4 41
 96 33 3f ad 2f 98 fc ff 86 a8 9b 7b e2 62 9b 07 oa 7c 7a 21 76 2e 12 4e 79 ae do 1e
 6f 66 ef 30 9c 74 ad cd 31 07 7d 95 b1 74 35 f9 69 78 64 oe o4 d9 9b 3c 1a 9f 89 3f
 b8 b7 b4 49 4f 8e bb b5 fa 75 o8 5e 50 1a bc b6 be a1 77 4b 47 41 66 ob 98 28 d7
 2a d2 o3 73 39 oa bf oc o3 ao e8 e5 8b d8 dd cb aa 1b 32 da 28 c4 26 cc 4c cd d1 87
 93 e6 oo ed 25 cc e7 76 74 16 oa 47 5e e6 81 85 7c 44 82 22 f7 37 d4 3e 98 52 26 a7
 c2 ao db f4 9d e2 9a 67 eo 35 19 aa 2e 7f 36 cd do co 4e e4 72 bb 8a 43 3a bo 3a
 a1 5d 9a 62 1b 5f e2 of 2b ea 77 1f 91 c6 46 90 c3 fe 5e de 41 88 ob bd 4e 30 19 70
 25 6b 58 ec 76 3e b8 e4 43 e8 9c 75 38 96 44 da 37 e5 40 8e 11 75 9b 22 9f fa ac 5c
 oc 2a fb 90 c1 93 a2 ce dc e8 7f 18 b6 97 c8 f3 9a 20 85 47 3a 7a fb 71 67 58 76 5b
 fo 59 4c e9 54 d6 92 bf d7 71 c7 c9 da 97 be 16 4f 7d 3d 4f 38 94 41 c6 db 59 68 5b
 83 3c d9 6b ac bb 35 57 ef 7d fe 47 82 93 82 96 5e cc oo a1 3d 64 84 d2 59 fc e9 ec
 34 32 bb 16 8c 4b 2f 14 a6 d7 3e 24 a4 4e 9f a3 e2 93 ef bo e3 4a ao bd 1a 44 do d9
 ac 3c 77 7e e1 10 5a bo 5c be fe b4 97 78 c6 2a 9d e9 aa oe d2 60 34 cb ef 24 90 5e
 o6 15 f7 23 a6 1c a6 9e 7f 65 98 19 a3 cc 5d 3c 55 e1 79 88 2e 46 e8 97 o6 f5 de fa

e6 58 54 5d d9 68 da a5 6f b9 bc fe 13 6e e3 3a f8 f4 f7 90 53 aa 14 b9 fc 9d ec f8
 7e 32 09 ef 74 66 0a 1e 84 62 9b 98 d7 bb 37 e7 6f 13 a2 b4 d3 d9 a2 15 42 31 33 92
 c7 c5 64 c3 of c8 2e 98 5d a4 cb 95 21 06 f1 31 f9 73 fo 7a ao 71 oc 89 21 80 68 37
 80 26 13 96 6f 2e 5d dd 40 fo 8a ed 23 ao bd a2 9a 93 d6 09 02 03 01 00 01

Thumbprint of the certificate (SHA256):

a5dfc5ad09b2f66a68ef0fb3b4bdaa42aa3add6f3e7bbfcbdfd27fc7ccd9f3d8

- 20 This service is referred to as "Organization Qualified Certificates - G2". The service issues certificates for authentication and nonrepudiation, where the private keys reside in a secure signature creation device. The documents governing the service(s) are identified above, cf. [5], [27], [28], [29], and [30].
- 21 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Serial No.: 02 02 ac (hex)

Valid from: 3. May 2018 14:09:59

Valid to: 18. December 2023 15:51:08

Certification Authority: CN = VRK CA for Temporary Certificates - G2, OU = Tilapaisvarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha256RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 d7 fa 78 oe cd 74 cd 27 d7 4b 21 38 of 12 3e 27 72 4a 8a
 4b 5a 51 00 72 6c b2 8d a6 co 45 dd f9 11 b3 60 99 b1 55 d5 2b 32 84 ce 67 cb 02 a3
 ab f2 48 do 18 35 00 e7 ed 3b 12 fc 01 39 2e e5 33 00 06 10 af do 9e 30 41 5d 43 97
 da b4 52 f5 b6 5f a5 8d cf 23 5e c7 ac 93 7a ad 4c aa e5 5e d4 8d 22 7c ad b1 ea cb
 59 bo co dc 4f e6 bf db 1e eo 7e cc c4 69 ed 63 fd 2b c3 oc 3d 73 22 2c 52 c8 c2 5f
 da 13 a5 30 12 aa de c2 37 of db 86 aa oe 5e 91 6c 79 8e f7 2c 64 eo 65 54 6e 1c 4c
 33 24 ce 52 3f 97 c8 1f 11 fe bf f9 60 2f c1 d7 ff c7 ob 3d 4c db aa cf e2 8e 2c c1 d4 42
 3c 67 cb f9 oe 37 d5 63 21 70 9a ba 81 fb 09 b3 12 63 05 c5 25 9e aa 5a 57 58 08 e9
 f1 03 cc ca 5e 34 2e ba 03 6e e7 19 b1 ac 35 7a 99 67 50 c1 08 8e 66 74 81 00 bd 32
 fa b3 3f a1 ob 06 b8 43 4f e8 6b da 67 16 76 67 7e 86 81 ec 8d 70 2e 10 99 fc 1a 9b
 66 78 7b cd 1c 31 46 4a 71 6c b8 b4 8e 77 1a 84 5f 83 20 8c c8 29 57 8a b4 4a f7 c4
 41 b8 10 19 3b e8 2a f9 eo ca 58 ed 6d 93 5f 09 17 d1 od ae 93 76 41 of a5 60 8e a3
 e2 2f of e3 9b 5a eo 82 4f a3 48 1a da 12 ad 71 c5 05 5f d4 08 14 co e5 3c b8 95 ec
 6f ba a3 38 aa 4b ob c6 e9 7d 30 9f a3 e5 62 a6 23 b2 76 bb d4 ef 60 03 od co 36
 8e a3 ee 34 29 7c 86 f1 f7 f4 ec 74 7c 84 46 c1 58 02 77 8d 96 1e 04 oe 9a 2a 40 ef
 4d a4 02 46 e4 co a3 97 eb 69 03 c3 16 79 43 db 73 ob f8 7d b5 64 bo 26 of 5e 9c
 47 03 fa 51 52 oe 97 23 48 cb 4f f8 e7 63 35 41 95 od 57 33 12 18 6f e8 22 a6 11 3b f7
 7d a6 f8 7f aa 79 8b bf 04 04 c5 ce 81 od bb 54 03 2f 59 3b 03 4e c9 6a 8c od be
 25 91 a1 54 c6 b1 73 7e 13 23 bd 5f c2 de 70 eo db 02 03 01 00 01

Thumbprint of the certificate (SHA256):

c01bod65e087050d2f88bb14351c8a573044c1e16e0de5cc562693a2cd8adafd

- 22 This service is referred to as “Population Register Centre's temporary certificates”. The service issues certificates for nonrepudiation and authentication where the private signing keys reside in a secure signature creation device. The documents governing the service(s) are identified above, cf. [10] and [35].

- 23 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Serial No.: 02 02 ad (hex)

Valid from: 3. May 2018 14:19:36

Valid to: 18. December 2023 15:51:08

Certification Authority: CN = VRK CA for Social Welfare and Healthcare Prof. Temp. Certs, OU = Sosiaali- ja terveydenhuollon tilapaisammattivarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha256RSA

Public key (ASN.1-notation): 4096 bits

```
30 82 02 0a 02 82 02 01 00 b6 93 bc d7 b8 08 51 f1 73 67 41 79 d8 2a a4 c2 d6 dd
b3 60 97 60 05 68 f9 67 58 44 1b 1a 5b 39 9e 28 11 18 c1 2b 08 3d 6d 4c cc f9 fo 5e
07 cf 95 62 35 28 fd 24 01 79 cf d6 3b 40 2f 6c 81 02 4f 3c 84 97 60 f8 da 2b 98 2c
d1 21 6b db 41 f4 fb 88 c7 5f 92 36 18 84 fo 08 ao 28 ab 97 dc 6e fe fc 4b e7 c5 7f
0e 00 86 6c 75 45 15 05 f3 b7 62 of 71 e2 97 5e ce a4 ef b4 ce oc b4 ao ea c3 19 8c
76 33 cb ec 13 02 a4 af fb 5f 36 e1 3b 17 47 06 5c oe 38 6a 52 4e a4 63 ba a9 e9 98
59 92 b4 e7 7a d9 05 cc 51 46 04 16 1a f4 4f 96 cf d7 oe d7 6c 3c 52 ec fa fd 1b 28
8f e3 8b 7f 24 fo 9e eb e4 6f 6d f3 eb b8 05 6d a6 54 f6 92 2e 5a 90 7b 92 02 85
94 5b 53 20 37 co fa dd 1e e1 06 9c 18 86 b3 a2 41 f9 b5 b4 e5 31 dd 3a 19 92 15 28
35 34 a2 6e 6a 45 12 87 14 co f4 44 52 4b 29 bf dd f1 ea f1 26 81 5a 9c 21 b8 28 b7
8b d1 96 cf 23 e6 7c 98 f5 3e b9 5a 03 1c eo 77 18 d2 ff 3d oa b9 b2 4e 21 86 e2 do
9c 7a 3a 20 36 e7 3b d2 do ea 65 05 ed ac 99 57 ec 3d c5 87 05 eo of 14 56 5b 94
a3 4e c4 5a da cf ff 52 co 7f f2 6e 71 c2 6a e6 09 fd ea 64 40 ed 30 bb 70 e7 1d 25
od b4 c7 c3 36 d1 ac 1f cc 91 bb 46 aa 8f oe c8 1d e7 15 34 27 d5 ee ba 08 35 3b 67
07 85 36 c4 b9 8f 50 12 04 c9 5c a3 d7 c4 ao 73 9d d4 84 3b 17 22 9d 22 34 92 4a c6
d7 53 b8 fd fc 82 9e 6c 21 32 fd e3 ae 85 05 97 b3 f1 5f ef 4c 41 72 26 31 65 d3 be 78
cb 10 ab c4 ba 98 62 80 81 58 58 64 4a 3f 83 af 1b 6e 70 77 d3 01 fo 8e 3f e8 59 16
56 28 8f 10 ob 3e 23 46 ca c1 52 40 08 8a 69 3e e5 21 ca 73 b9 82 30 eb 62 1d 69 dd
7a 63 57 2c d2 6a af c6 92 a3 47 c8 9b 9c 9d 8e 45 e8 e3 02 03 01 00 01
```

Thumbprint of the certificate (SHA256):

61f660851b6a5524defocb9e9ea56f688a80odf9ea1829cc6do2982072b1afa5

- 24 This service is referred to as “Population Register Centre's temporary certificates for social welfare and healthcare professionals”. The service issues certificates for nonrepudiation and authentication where the private signing keys reside in a secure

signature creation device. The documents governing the service(s) are identified above, cf. [18] and [40].

- 25 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Serial No.: 01 aa 8b (hex)

Valid from: 12. November 2013 10:09:06

Valid to: 17. December 2023 23:59:59

Certification Authority: CN = VRK CA for Service Providers - G2, OU = Palveluvarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha1RSA

Public key (ASN.1-notation): 4096 bits

```
30 82 02 0a 02 82 02 01 00 b5 d9 3b e4 4f 3e 60 2f 74 e0 06 96 20 76 f3 7d d4 18
a3 86 0c 0a 1c 30 17 5b 99 3c 53 cd 46 24 8b 01 fa e7 dc 5e 32 3f 5d e0 73 b4 e5 c2
cc 59 8b 9f 50 d7 98 f7 13 62 c9 b8 27 b4 b9 02 b8 b7 43 eb 63 f2 5e 67 87 f8 25 28
4f e9 cf b8 90 31 eb 15 09 e5 0b 2b 65 28 bf b8 ag fo 70 5a 59 78 2d fa b9 35 fb 59
8b b5 63 55 61 f3 fo ec 1d 7b 46 89 db 7f 95 cd f8 81 44 53 86 72 e1 1c 96 99 29 84
08 b3 f8 ef 5b de 72 61 7e e9 2b 92 9c od 1f 57 ba 01 b1 f5 43 70 16 2e 53 30 c5 28
fd ed 29 af 63 oc 21 b6 37 78 3a 45 21 5f 71 95 50 e8 86 73 60 2a 4d 43 bf 50 eb b5
c1 ed 70 4e 42 35 4f 76 95 32 c7 98 42 e1 ce oc 23 cf 04 cf 61 29 d1 7d de 0a 59 b8
9b 7a 12 71 9c e9 bc 2e 4a 6d 59 b8 ca e1 8c a3 od 29 12 96 8f 9b 85 72 f9 46 ee c3
cb 5a fa b9 3d f8 bd c5 d1 d7 39 2f 87 f6 74 2f 58 26 18 ef ag b8 aa 1e db 1b be ab
a8 a4 1d 52 61 15 4f fc 08 25 b0 a1 58 1d of 43 4a 73 1a a5 57 ab e5 ee 2f 64 90 f3 95
c3 4b d4 14 d9 a3 41 f9 c7 4c 41 32 70 e6 fc 5c 42 9b 04 76 2e d8 ec 6e 6a 51 c8 c5
92 54 e4 3b e4 e1 4d 8f oa 34 04 85 ae 18 e3 50 45 e7 78 2d 86 cd 6a do 76 4f d3
e7 75 8a 97 4e d8 9b 70 12 80 d7 a3 17 f2 e7 b1 5b 59 25 f4 f9 c1 a7 2d 90 18 4c 85
e3 9d d6 05 c9 08 6b a3 e8 02 3d bd 59 e8 73 b6 50 bc c1 5e e7 65 94 59 9c 4c 93
04 6e 45 58 6b 2c 08 7b 9f a6 f2 94 e9 26 f7 68 2c 4f fo 66 76 e3 52 05 44 62 23 13
25 6c ob co 3b 12 dd 00 of oe 17 54 oe e9 35 1f a1 6e 2b 81 11 01 2f 1d 43 60 e7 6f
6d f4 52 02 36 93 ff 13 a8 a8 ab 1c 14 73 4f 29 45 82 aa 57 97 e6 da 3e 13 6e 8c 45
68 d8 d6 1a 84 48 41 39 1b 61 a6 e6 ba 9c 5c bd co 77 89 02 03 01 00 01
```

Thumbprint of the certificate (SHA256):

```
41d2e6f4678d2428045083aco74a2ad6oef2f811bao6e1963fe319b2ff67c137
```

- 26 This service is referred to as “Population Register Centre’s server certificates”. The service issues certificates for website authentication. The documents governing the service(s) are identified above, cf. [7], [42], [43], and [44].

Root Certificate VRK Gov. Root CA

- 27 The full annual audit covered the root CA certificate, which issued the aforementioned subordinate CA certificates. It is identified by

Issuer: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Serial No.: 01 86 ao (hex)

Valid from: 18. December 2002 14:53:00

Valid to: 18. December 2023 14:51:08

Certification Authority: CN = VRK Gov. Root CA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, S = Finland, C = FI

Information on Algorithm: sha1RSA

Public key (ASN.1-notation): 2048 bits

```
30 82 01 0a 02 82 01 01 00 b0 85 15 da c8 03 37 do a3 46 37 6c 1b 1e 96 30 c2 5a
85 12 67 23 f2 bb 9f e7 8a 81 60 27 f8 13 a9 3c bc f7 86 aa aa f4 f3 25 29 b4 fe 75 ae
1e 81 86 8a 05 b2 1d 65 b2 38 e8 b4 cc 28 9a fb 17 36 f1 93 d5 79 ce c1 83 8b 21 4f c3
od ad 41 df 78 9d 48 e3 1f 42 44 fc 3c 6d 21 20 6b ad 22 84 24 42 8f 17 4d c2 50 1f
64 cd 2d 39 22 56 88 fd b2 63 9d 54 da 42 69 c0 c8 4f d7 18 e2 3e c8 69 84 94 3d
2c 80 c6 7c ce bd d7 53 1f eb 88 b9 a6 cb bb 85 57 ef 57 76 5d oc 8b d3 5e 12 41 9f
21 c0 39 f4 26 6d 08 fa 38 b3 a1 77 b1 ee 16 d8 do 68 da b4 98 a5 ao 65 46 4a 6b
8d 7e aa 4d 60 b8 f8 c8 od fc 71 3e ee 39 87 81 b4 d9 f8 6e 90 ee 3f oe 61 d7 1d 2b
68 e6 2e e1 42 44 26 78 2c 58 f2 7d 16 7f 61 c0 49 24 2a 89 87 b6 5d 2f 29 19 f8 a6
e7 8e 52 9e 41 4b 5a oe aa b8 c2 66 42 53 02 03 01 00 01
```

Thumbprint of the certificate (SHA256):

```
foo8733ec500dc498763cc9264c6fcea40ec22000e927do53ce9c9obfa046cb2
```

- 28 The audit was completed successfully without critical findings.
- 29 For contact information, see page 2.

Issuing Certificates signed by VRK Gov. Root CA – G2

- 30 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA - G2, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, C = FI

Serial No.: 03 od 43 (hex)

Valid from: 3. May 2018 11:28:59

Valid to: 2. May 2038 11:28:59

Certification Authority: CN = VRK Gov. CA for Citizen Certificates - G3, OU = Valtion kansalaisvarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

```

30 82 02 0a 02 82 02 01 00 b3 1f a5 af e5 88 52 44 98 62 50 cf 86 4b 39 a5 c7 81
8a 16 7e 59 1c ad 76 c9 58 1b d2 59 29 8d 39 9d 3e 85 f7 2c 8b 40 c0 do ec 3e 38 3c
72 bb 85 38 3a 9c f2 22 78 63 72 98 cb c3 62 cc de c5 25 11 ff 5d bb 73 8c 02 84 27 18
2d 73 35 5b b8 22 cf fe 85 ed ff 46 5a 8d 42 a5 82 51 2f d1 17 d7 c3 be 7b 10 34 17 6a
b4 83 59 59 f6 bb 79 fb f1 74 77 12 a7 88 d8 78 36 d7 94 a7 c0 71 4d a4 e8 8a c1 fe
d8 85 10 55 b2 41 65 27 38 3f 28 cb 34 ab cb 21 c5 ca c6 9d oe 4e 67 bc 27 7b 54 6c
32 a4 00 27 7f ee b7 ee 3c 1e 72 9c cf b1 cd f5 c4 34 93 72 ab aa eo 8e bd c3 d4 70
28 91 90 a4 88 58 74 fo 29 38 e4 67 09 25 fb d2 c6 3c ac ao 95 19 39 1e fa bb 8a 23
1e 44 46 ea 80 cc dc b6 a2 41 50 9a cc a6 6c c1 13 cd 8f 8d d3 97 ae f5 3c 7b df 39
1e 53 e5 2b b5 ca 72 10 34 38 ee 9f 59 f5 a3 b3 c1 34 b5 09 47 04 ed 4d e8 8f 2a 8b
94 70 99 25 56 9e 75 1d 2f a3 f3 4f 2c 73 db 90 d1 c1 99 90 3d 80 d1 of d1 dd 41 cf
4e cf 56 76 08 do 5e 1a 3c a6 ao cf 4d 82 3c 8f bo 42 64 f3 co 4c 72 2b 06 42 75 co
a7 5a 41 af af de 36 2e a1 19 b4 bd 47 b3 dd e4 70 12 c9 be 9f 69 00 e7 4e 4b of 57
44 cd f2 1c 62 d6 5e 3a fc 2d 36 66 e1 ca bd 68 2e d4 08 50 84 55 77 d2 6f 95 37 6d
oa 1b 5f 3e 1f 13 63 c7 cd 5f c8 d6 9f 76 36 56 bo f5 82 e9 9f f5 16 2b 6e cc d8 8e bb
45 00 70 18 52 fc 14 28 80 98 c3 78 9e d6 ff b1 2d 65 3f 16 cd 7f 4e 6e 45 92 e4 08
af d4 2f b6 oe e7 fe 99 03 7b 88 84 57 e8 5e b1 75 02 oa 39 72 5a 22 2d 4c d4 28 aa
05 87 a6 1b 9b 28 7a 05 e6 5a b7 a9 e5 b9 5a fa 6e ce c2 ce ba 35 4b 07 03 1e 15 53
3a ad 77 16 24 1a 9d 29 4c ce c5 af 78 od d7 02 03 01 00 01

```

Thumbprint of the certificate (SHA256):

```
39a835b14b6b6313f778371c79cb434dd518c8fd325b749d9be669dff20384e8
```

- 31 This service is referred to as “Citizen Qualified Certificates – G3”. The service issues certificates for authentication and nonrepudiation, where the private keys reside in a secure signature creation device. The documents governing the service(s) are identified above, cf. [1] and [20].
- 32 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA - G2, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, C = FI

Serial No.: 03 od 44 (hex)

Valid from: 3. May 2018 12:12:46

Valid to: 2. May 2038 12:12:46

Certification Authority: CN = VRK CA for Organisational Certificates - G3, OU = Organisaatiovarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 8a 68 7b 43 9d 96 c3 8b 59 c2 f5 f9 e2 49 64 b2 39 f1
 b9 28 60 e3 e7 d3 a4 65 be b3 08 do fi 8b do fe dc oc 62 2c da 75 dd 2a e8 61 6b
 48 b7 eb 9b 12 43 e6 e2 bo e2 oa bb 36 c7 f2 ee f3 f5 b6 1b e4 49 3b 02 f4 8e a1 fc
 ad 44 fa 9b 41 d5 22 19 19 8e d6 5d 94 c1 e3 13 33 d5 86 4d c5 57 dd 5e 72 17 oa 05
 1a oe a2 f2 ca 95 fd 5d 07 bo 10 8f df 4f 21 cc ao 57 9d fa 52 bo 98 72 61 3c 36 do
 db 8a cd d3 03 4b 48 cd 97 4d 22 68 oa 4a 7b 67 3b 81 9f 2f 99 e1 2e bo e2 40 c9
 5f 9d ce ca 77 4e ec 26 28 4b ed 20 31 a5 e1 co 40 db de 35 ec 45 38 3f 51 93 be bf
 25 64 ba b3 4e d9 e4 c7 33 a5 ao c7 ed 36 53 ec 80 56 ee 28 oc 47 e1 d7 14 o8 93 48
 ff 37 56 56 2b 48 70 do 53 98 bo e7 d1 1d 61 e4 c2 1c 2f c6 f1 fc of 02 4e 25 73 oc 80
 31 57 05 86 e4 24 cf 58 2d 4b 6e e4 a2 94 6d 3e 49 5d 5b 42 71 c6 60 22 74 cf 48 8f
 c9 04 78 82 58 of 00 48 54 24 05 f4 ab f9 f7 1d 4b 2f 62 52 6a d2 c2 45 e7 c5 51 13
 97 91 39 d6 62 32 17 bf 83 17 65 36 2b ae a2 f7 47 a4 77 ef 4d d4 3c ba ab 41 7b 59
 a6 34 39 24 5b 9d 9c 65 6a 6f e8 7c 8c b1 6b c7 ad d2 31 37 oe f4 65 17 fd 4c f9 b5
 cc a3 3a 48 c7 ad 17 e7 29 4a 8c 3a cb 3d 27 b3 21 93 64 do c5 ce 30 68 2a a4 e7 66
 c9 36 2c 28 70 c3 dc ed d6 c4 ba df ed 5e 59 a9 f2 1c 34 7b ag b1 c8 fd 26 ge ba 88
 aa 3b 40 ad of ce fa 73 72 65 87 36 46 cf 9d ad d4 7e fd 42 c5 2e 44 87 8a 07 55 29
 7d 8c 35 ef 72 ab 99 2e ee 02 ff 68 b6 82 aa e6 ce 72 b7 oc 74 59 ce be 4c of c3 01
 28 db 37 ao d6 de 67 9b c4 31 62 75 1a 84 3e fe ca 23 30 3b od 5f 1e df oc 53 5d f9
 13 97 24 a2 cd 4f bc a5 6c 5d 57 55 36 4b 52 65 fa ea ad 02 03 01 00 01

Thumbprint of the certificate (SHA256):

9c0b9e9a95590dofafe4a46c62e49ddoba6cco8of89019a23do37e1a4c1b5b

- 33 This service is referred to as “Organisation Qualified Certificates – G3”. The service issues certificates for authentication and nonrepudiation, where the private keys reside in a secure signature creation device. The documents governing the service(s) are identified above, cf. [4], [23], [24], [25] and [26].

- 34 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA - G2, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, C = FI

Serial No.: 03 od 45 (hex)

Valid from: 3. May 2018 12:19:19

Valid to: 2. May 2038 12:19:19

Certification Authority: CN = VRK CA for Service Providers - G4, OU = Palveluvarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 cb e6 be 06 a8 12 86 a9 a2 dc c1 e9 db 10 46 71 51 56
 97 88 cf 93 od f9 2e 48 d7 8a 97 b7 21 54 5a 86 16 7d 53 fa 40 5f 49 bo od b8 bf 02

fc 7c a9 c9 22 47 92 79 08 90 46 00 1e 9f 6c 06 87 5f bo c8 6f ad ea 25 e4 ab 4c 51
 27 24 6f 60 1c 86 24 a1 e6 8b of bc b6 52 fa c5 71 fb ba bb 39 47 e2 do 27 7b 02 ae
 e6 44 70 fo 8e c1 2f 71 1e fc fa e5 d4 a9 62 49 f7 e4 be d3 72 7e 3b 81 d2 28 45 c3 2e
 2d cf 9e ed 38 96 bf 31 a3 41 2d 5b 19 91 b5 5c c6 35 9e c5 fa 4f 37 70 d2 db 28 30
 69 65 b2 4e 10 04 71 7b 21 37 oe 75 ea 60 a7 87 99 cc e2 d1 3d f6 92 ag 2e d5 78 71
 1b 6b 2b a3 8a 2b ao 3d 8b 3d f2 91 68 da c7 b5 63 78 01 73 d2 92 19 52 d5 d5 1f c2
 9d 4b 5c 00 e2 b1 1d 5b e3 15 6e c4 9a 56 oa 54 bb e1 04 9f 26 47 47 40 76 a2 88
 42 b3 92 b1 ca bc 7f 43 eb c6 46 b2 53 c7 75 b2 69 f1 44 48 e9 3c af 04 bf 2b 9f 91
 13 5a f5 9e 70 02 2b 96 55 d4 eo 28 01 9f 48 28 e9 4e 97 58 7b ee 96 8a 08 a5 22
 ag 54 f2 2b oe 79 oe 87 04 3b 24 36 74 b6 oa 93 d4 b4 dc d3 56 bf ao c3 7e dd 4b
 11 95 dc 50 ce 1e 69 ad fd 75 34 70 f9 8c 65 16 12 a2 97 b3 a2 b2 67 93 ca f9 ba 25
 5f 34 76 80 f7 89 ee 6b 7b 83 78 f2 ac e8 cf f5 2e 8c d7 dc 2f d5 70 f8 2b de 72 64
 00 6f 32 ff 53 72 08 95 7a 5d d3 e4 45 3e cd cf db 63 15 5b f6 fb 3c 93 bc oa 9a a6
 6f d4 62 5e f2 11 d4 43 68 78 e7 4d 00 1b 57 ef 18 3c a3 oe 99 e6 5f b4 6d 33 58 f6
 dd 90 82 65 1c de d5 d9 44 a7 1f 91 7c 32 43 61 61 c6 8f 45 68 68 6e 69 f9 8b fd 5a
 5b f7 oe cf 07 70 od oa c7 90 ab 3a 8a 49 b1 06 34 fe 2a b7 35 39 4e e5 oa 36 35
 8a co 4e 2d 7a 00 d7 33 87 c4 64 9d 90 31 c4 f6 d3 ca 9a 5b 8b 02 03 01 00 01

Thumbprint of the certificate (SHA256):

1bd3870b842ff0a637284268017e18e455a7fd2d84468f3cdf7d587c7ab35c9d

- 35 This service is referred to as “Population Register Centre's server certificates – G4”. The service issues certificates for website authentication. The documents governing the service(s) are identified above, cf. [8], [45], [46] and [47].
- 36 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA - G2, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, C = FI

Serial No.: 03 od 46 (hex)

Valid from: 3. May 2018 12:24:51

Valid to: 2. May 2038 12:24:51

Certification Authority: CN = VRK CA for Social Welfare and Healthcare Prof. Certs, OU = Sosiaali- ja terveydenhuollon ammattivarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 a9 47 fd 86 65 a2 44 88 6a e8 53 eb ag 8b 6e 1a 96 ec
 d5 7d 50 ce 31 2c 61 d5 f1 d1 41 87 e8 c5 91 c8 df f9 70 fb 4b 9d eb fo c9 f9 9c 17 16
 00 23 16 62 4a 92 49 61 5e c4 35 15 be fe be b7 93 23 f6 16 51 69 5f 95 15 b7 b7 eo
 84 90 75 3d 8f 23 32 4f 5b 7c d9 72 e5 05 9f 46 48 61 09 10 83 08 60 db 90 ao 6c

9a 3e 7d 9c 31 50 96 5f d1 d9 32 82 96 7f 9c 9b 6d e5 32 28 56 d5 a4 b2 87 52 fc ba
 8a a4 oa d8 35 df fd 4e 1b 17 1a of ec oe do ee a9 61 56 29 99 38 bb 10 ab 74 69
 oe 67 94 f8 c9 a2 58 fb f5 c9 54 co 9a of 94 15 43 e6 17 39 48 72 72 23 o2 f6 e8 81
 9f e2 ad 15 33 b1 7a 9b ca 76 53 ef 38 co fe 70 1e 44 9d o1 71 38 26 29 co db 2f d7
 b7 4c 15 o5 36 b4 3f 75 4f 2b e8 ce d1 f7 1d 59 28 co 1a 22 c2 a5 97 o1 52 38 78 ae a3
 ad 61 ea ec ce 5f 9e 8o o3 fo df 38 co eb 54 f4 od 7a 5d 4b 3c d3 c1 e7 2f 9c 76 9e
 4d aa 9c 79 dd cf 56 24 be 49 88 ed b8 ef c4 ae b3 69 b3 c3 ca f3 d9 d5 93 b6 f4 e1
 o1 3o 55 o6 f9 29 c7 4f 67 f1 fc 33 of 31 77 c5 d1 13 o2 o7 a1 oo d7 39 46 o6 66 ba
 bc eg ff 92 1d b4 8e e2 6c 45 42 2e 83 b2 oc d5 d6 oo 9o 1b o6 88 oe 9c cf c1 18 c3
 68 1a 6a 14 af 83 e1 2f c3 94 84 7c 8a b5 od de a2 57 8c f3 af ef a5 69 56 44 67 ac
 1d f9 ac 82 o7 ee 3o o4 ao d7 b8 7e 6o 8d 1e o4 83 3e 2f fb oc 2c 53 94 1d 26 ed ea
 c5 4a 88 85 2d 3e 12 62 9a 47 92 8o a6 7e c5 27 14 f8 89 ac bc 27 5b 6d e3 ae 8a 1a
 a7 3d 8a cb 1b 65 53 be o4 bo 6c d9 2a 25 a4 3o d4 8a 31 41 63 29 a6 2c 19 af b2 1b
 33 4a 8b 43 f6 d3 31 9d ao 13 d1 oo f1 b1 c3 5c 37 b1 b9 5d 7o 8f 39 e3 72 91 fe 67 4c
 8a 6e d1 ob 3a o2 b5 4d d3 99 57 24 e8 ac 3c c5 97 o2 o3 o1 oo o1

Thumbprint of the certificate (SHA256):

oe839ee68b1eef721d31e62e589e692co318ofaadade48a71837c25o9ob3acc4

- 37 This service is referred to as “Population Register Centre's Social Welfare and Healthcare Professional Certificates”. The service issues certificates for authentication and nonrepudiation, where the private keys reside in a secure signature creation device. The documents governing the service(s) are identified above, cf. [12] and [37].
- 38 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = VRK Gov. Root CA - G2, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, C = FI

Serial No.: 03 od 47 (hex)

Valid from: 3. May 2018 12:37:17

Valid to: 2. May 2038 12:37:17

Certification Authority: CN = VRK CA for Social Welfare and Healthcare Service Providers - G2, OU = Sosiaali- ja terveydenhuollon palveluvarmenteet, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

3o 82 o2 oa o2 82 o2 o1 oo bf 92 83 c8 ed 45 d7 ef 27 d4 be 42 59 c2 38 84 ba cc
 d5 od b6 ef ff d7 e2 12 ba o4 88 1b 93 24 64 85 9d 21 42 3o b7 95 49 d4 fc f7 8b f8
 df 85 6f 4o a2 27 dc o4 6b oo 9d 67 98 fb 4d d2 43 5f c9 d3 e6 a2 7a b7 e7 68 83
 ef a5 f6 1f dc 27 98 97 28 ac b6 98 36 eo 2b 33 co 3o b1 cf oo 7d 27 fo 98 9d 8f b6
 56 e9 58 32 24 14 28 o5 3a ef f9 d6 35 33 eo d9 7f 47 co 77 3o 68 4f 5f f3 ff dd 9d

77 4f e2 c6 19 bc 8b 79 b7 01 a7 11 62 82 8e dc 59 54 fa ff e8 a8 4c d5 4a 59 ab fa
 95 78 34 5c 64 07 f5 5f ef df aa 79 7a 98 22 ba od 4a ce f3 f7 c4 39 e7 ca 79 c5 f6
 8a of 82 6f 5c 3b 2a 1b a1 d3 c6 17 be 95 eo ao 93 46 5c o8 3e dg d1 72 6f 30 a3 d1
 69 b8 66 40 62 oe 33 5c 29 d8 f2 b9 37 d5 bf c1 83 c7 33 6b 9c ba f1 58 e8 6e b7 35
 d2 o6 b9 71 7a cc 89 29 f5 95 d1 39 e6 ad 65 6e bf d3 94 38 da 8c ca ee 22 20 45 f5
 fb 10 a1 66 5b a8 42 51 31 cc 74 cd 8b 5e a7 62 ce 95 e4 91 8e 26 34 43 50 bo ao ce
 67 ob oa 9a ab 26 82 2c 24 cc 33 88 2c ae ce 14 d4 38 a6 70 5b ob 4d 52 eg 92 a6
 30 e3 3f fe 62 f4 38 23 6f 15 5f 9a e3 74 8f cf 89 o8 eg f1 3e 11 09 05 31 3c 4f 32 53
 3a b8 73 52 13 b6 ao 54 64 b3 89 df 36 e7 38 22 bc 73 oe a4 61 b6 a8 76 da 53 39 38
 57 eb 42 1c 07 88 f7 01 ac 47 72 4e gd 3b d9 e4 a6 6e ab 22 a8 2d 25 bb cd 52 db 24
 b5 f4 13 23 83 26 75 do 71 19 f4 bb b6 23 49 98 39 e2 cf 71 76 of 5a cf a6 d4 84 40
 87 f8 42 46 97 of 91 bb 56 f1 fa fe 90 dg ca 30 73 ff o6 a5 a1 17 3e 32 43 05 f4 ea 15
 a9 e6 6f 92 ec dc ac 1b e6 o3 96 b6 8b bo f4 61 63 7c f3 74 bo 91 53 f6 df 9c ca ce
 75 85 17 89 77 17 49 f7 1b 3e d6 o2 84 ae 7e bf 4f e5 o2 o3 o1 oo o1

Thumbprint of the certificate (SHA256):

a6b34f7boe87446362bb1a2bf3ee95dd56d8ba97a9ffbo3df41031377ecdd6f8

- 39 This service is referred to as “Social Welfare and Healthcare Service Providers - G2”. The service issues certificates for website authentication. The documents governing the service(s) are identified above, cf. [16], [52] and [53].

Root Certificate VRK Gov. Root CA – G2

- 40 The full annual audit covered the root CA certificate, which issued the aforementioned subordinate CA certificates. It is identified by

Issuer: CN = VRK Gov. Root CA - G2, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, C = FI

Serial No.: 03 od 40 (hex)

Valid from: 14. December 2017 09:50:31

Valid to: 13. December 2038 09:50:31

Certification Authority: CN = VRK Gov. Root CA - G2, OU = Varmennepalvelut, OU = Certification Authority Services, O = Vaestorekisterikeskus CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 bf d6 00 4a 89 oe 2f 23 3b 72 7f 73 20 65 a0 5f 16 c5
 7b 5e 5c 06 f9 66 73 20 82 f5 62 96 17 94 51 fe 9b 35 e8 f2 oe 5f 7f 21 95 1c 62 c0
 e4 f9 82 78 5c ef 55 c0 c7 fc od 79 f3 b6 4c 82 36 oa bo 4b fc 2d 61 a6 ob 88 b8 4f
 b9 05 ae o6 cc 09 d3 7b 4a od 68 89 13 45 00 a3 9d 5c e6 7e a5 1e e7 o6 2f fo 6b

45 a4 a2 d4 9b 87 ca 98 65 60 eb 5a cc a2 95 ec 93 5b 4a a5 76 7d 5f 75 d2 2d 95
 47 7a 69 b1 73 88 ac 65 24 79 20 7f 88 86 45 64 12 e8 14 c7 38 90 97 1c f1 41 f7 b8
 eo 37 ff b6 b5 cc 31 5a cc 28 ff 84 a8 53 56 58 72 dd 63 co 3b 47 1d 8c 56 43 de 54
 c7 08 cc 3f 7a e8 c2 03 ca 34 bc 85 95 e7 c3 d1 20 d2 f4 4a 2b f1 e9 ef 7d 7a 5b b5
 o4 60 52 o4 78 9d e8 e7 29 43 6e 3b o1 oo d8 2a cc o6 26 o2 6a 84 3f f3 o8 aa 3e
 14 fd f7 f7 8e b9 8o 3o 42 a5 o5 7c cd f3 a1 84 22 78 11 41 o9 d5 8c 8o ob 4e 58 8d
 98 d4 73 3d 15 f7 6d 99 3d e4 84 f3 47 3c 2f 6b 99 14 84 21 3b 9c 56 65 52 f5 8f ab
 od a9 63 82 cc 39 52 b1 ea a7 59 e3 a3 co of 79 3e e8 95 3e 46 ac b9 dd b8 57 85
 f6 97 ff 9e b3 o8 e6 37 56 de fc a6 33 38 8d bf od 6b 96 a6 8b e9 7o 4a b7 67 44
 a8 89 2e 9o e6 97 8b ee 6f 9c ac 73 45 fb 69 38 fd 56 f8 o5 eb a3 11 cc c8 f2 f2 c4
 bo f8 d7 19 f8 o6 e6 96 6o 7d d4 e4 b6 f3 d4 9b 19 5f df 31 83 ce b8 eo 75 96 29
 6d 3c 2f e8 59 co 4a 9f ba ec fa 93 f6 91 6f 2d 24 14 92 2b be ad 9d o8 58 35 e1 61
 2a 13 df d8 do 7c f1 56 f3 6b 74 2d c4 e3 ee 8o 61 2c ab oa 5d 55 49 4b 61 af 95 4e
 b1 b7 52 d6 99 d3 ef 24 do 1c o6 48 9a 1b c2 17 9c b2 e6 8b fd 2d 72 b1 97 3c 18 49
 51 56 7c 55 e4 12 be 5o 89 1d 69 28 19 48 c3 da 22 81 a9 eo eo o5 aa bd o2 o3 o1
 oo o1

Thumbprint of the certificate (SHA256):

34ff2a4409dc1383e9f8966e8adfe5719eba373fdoad5e2f49f9oeeo7cf5d4c1

- 41 The audit was completed successfully without critical findings.
- 42 For contact information, see page 2.

Issuing Certificates signed by DVV Gov. Root CA - G3 RSA

- 43 The full annual audit covered the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a35977cc9256b26b7e9318a576 (hex)

Valid from: 25. May 2021 13:14:42

Valid to: 20. May 2041 13:44:42

Certification Authority: CN = DVV Citizen Certificates - G4R, OU = Valtion kansalaisvarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

30 82 o2 oa o2 82 o2 o1 oo ac 2o 3o bb ao 5o 2f 19 ea 82 fd 9b 49 cb 1f oa 78 oc
 d5 2d bf 9o b4 d8 2b eb 14 f2 b2 99 bd 65 ad cf e3 5b 1o 27 54 ao 3o 3b 91 a5 5c 76
 2d e3 24 a8 ed fo fc bb 1e 96 dd 7b 8b 42 ao f2 eo 5o o6 a3 f8 2o bf 57 62 66 75
 ee 85 9f oo 82 c9 86 f4 ad c5 f3 fe bd 83 64 4o fe 8f 23 a7 2a 37 ce 3d d7 3f 53 2e
 6d eo f9 o5 81 2a f5 b1 38 a6 a3 76 o2 26 52 9f 58 46 81 4d 33 6d c7 oc ag d3 77 da
 62 d5 of be o8 db co 8a 89 41 de 77 8d ag c4 e7 fe b7 73 6o 77 64 ba b4 92 f5 5o

70 f9 95 27 b2 61 0c a7 28 cd 6c 86 e3 b9 e2 eb e3 4a 9a e2 b4 bd 8a 8a 35 ao f1 cf
 9d 8f 87 35 5e 46 21 91 32 88 4e eo 20 oc do c2 e2 22 ff 97 bf db ag 45 cd 3f od 7f
 o2 56 e6 6f 1e 48 cd ff ce e9 7b 62 4d 3b 93 b2 10 d5 4c 73 87 85 30 bd e4 95 a7 f1
 4c bb ob ba 8a 8a c4 45 68 27 cb c5 e4 38 of 46 e2 f1 75 60 29 35 ao 77 54 d7 8f 86
 24 1f 92 a8 24 3e a1 oa f1 29 f1 d2 co o8 17 38 d4 46 25 14 1c 47 65 57 1c 73 b2 5c e6
 eb 14 22 df e4 7a 35 92 ob 48 83 18 a7 12 37 5a b8 a7 4b 6b 70 f7 f9 d9 82 71 5a 9a
 87 oa 43 90 cd od 99 6d c1 52 bd 2f 71 f6 d2 93 cd b7 ce 98 bd 82 o8 df 15 98 67 14
 of 73 38 d9 4d 94 7e fb 53 5b 2d b8 c2 f8 e7 fb d1 cf 54 33 1e 45 e8 b9 ca 4e co 68
 ce 81 6a 2b b5 61 6b e2 72 44 dd o6 b1 c3 1d 27 b6 93 a1 cf 4b 56 95 2c eo 62 ed b6
 8e 58 e5 aa o8 32 96 b4 cf e8 81 5e 7a b3 1c d2 48 8c o4 od 57 64 ad 14 23 3b 61 c7
 2b 55 31 9b 58 83 32 76 c4 fa db 71 92 d6 b2 75 3b 84 ao 57 3a f2 o4 4f 2e be 76 66
 ce b8 85 9d od 59 dd o5 dc 67 60 6f e1 80 6a d3 ca ac be 83 c4 6e b3 45 a2 d5 fb
 9f fo 3e b1 22 48 a2 c9 17 oc dd 1b ac 2d c2 bb 65 5b fa 5b o2 o3 o1 oo o1

SHA256 thumbprint:

2176C05E69EE24946A140D13F9EFA222B3F1E768E1E2A67B313969CC03B82064

- 44 This service is referred to as “Citizen qualified certificate - G4R”. The service issues certificates for nonrepudiation and authentication to citizens, where the private signing keys reside in a secure signature creation device. The set of documents describing the service is [3] and [22].
- 45 In addition, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a3638f762ca038fb0df66a89d (hex)

Valid from: 25. May 2021 13:26:35

Valid to: 20. Mai 2041 13:26:35

Certification Authority: CN = DVV Organisational Certificates - G4R, OU = Organisaatiovarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 c4 a2 oc 11 59 dc c7 ea 09 bb do 2c 3c 6b b7 25 9d fo
 d1 4e d1 c6 78 3f 59 eo 67 51 f6 3c d8 6f 79 5f 31 3e 2c 20 fc ao 6a a6 ed e6 72 44
 83 9a 7b f6 94 88 e7 6e e3 19 7b 7d ag 7f 20 73 e4 91 87 f9 c6 d3 c9 98 bd b5 7c 41
 bc 99 74 f1 13 28 7f c3 ad 13 af a6 76 b8 84 a2 c3 e4 42 47 f1 6c 78 86 8e c5 80 94
 a1 o4 40 14 e6 ef e7 7b 8f 97 97 fc 85 1e 42 71 9e e8 38 e9 58 92 69 b3 85 2a 4d 8c
 o3 12 e1 ad bf b2 9f 52 5b 53 do dc o2 cb 88 f5 o7 82 16 d6 ce 90 b9 22 1b 70 o6 c8
 o6 28 ce c7 cf ad 3e 9a f2 b9 bc fe 7f ce 99 59 fd f4 cb o8 39 bc o7 82 42 of d1 53
 c1 ea f5 o9 31 fb ag 43 27 d4 79 50 7d b7 6b cb 3e 77 fa e1 73 29 13 2a 34 e9 5d 3b
 37 eb 77 1f e6 42 b6 37 de 6a 14 79 cd 28 3c ao 8f 92 e8 23 5f ob d1 f1 fd 43 o7 4d f1
 9f 2b 31 oo ee 90 8e fo 73 b6 18 be 1b eo oc 5a b1 1d 30 21 87 51 2e ca c7 f9 ab 42
 40 bf d5 bf be d5 69 f7 56 92 bc d1 a3 fo c5 45 a1 30 2b b9 fo 76 f4 o8 20 o5 cd ae
 89 24 84 a2 79 4b c4 76 2b 3c 12 94 51 18 bb dc 12 65 20 45 46 a4 7b c7 5e 25 1b o6

```
c5 59 f5 15 6b 64 1f c7 32 62 68 ed 2d a7 34 ae 4e bo ee 57 45 8b f3 57 9a 67 7f d8
be e3 28 65 d5 f4 f9 42 f9 da 94 4a fo 73 ef 4d e7 56 20 8e 3a 57 66 7c 4b 33 a5 3c
13 63 36 3e 77 46 9b b9 68 a7 df f1 f7 75 b9 65 87 43 aa 39 83 b9 f1 26 89 4d 7f 64
34 aa cc 22 8b 87 d4 8c 1e d6 ed c1 e2 c5 f2 91 98 df of 92 a6 f7 cc 98 20 62 54 c6
f6 ob ba ce 7b 65 ec ea oc a8 b3 b3 13 14 1a a7 25 d3 5d 9b e9 40 65 oe ec 4b e5 56
do 72 97 dd 8b 20 65 49 a6 56 ed 9a e8 89 a2 12 32 3b ec 5d 98 78 1a 3c 87 2b 19
d1 1d 6e 23 59 dc cc ef 78 c2 a8 cc ao 4c 31 a8 54 b9 o2 o3 o1 oo o1
```

SHA256 thumbprint:

```
DFC3E965176F883A9CFoF68CEAEAB663EDFD8E79DE3294373C28A85698400
6F
```

- 46 This service is referred to as “Organisation Qualified Certificates - G4R”. The service issues certificates for nonrepudiation and authentication to organisational personnel, healthcare non-regulated personnel and healthcare national operator personnel, where the private signing keys reside in a secure signature creation device. The set of documents describing the service is [6], [31], [32], [33] and [34].
- 47 In addition, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a399c459600b353ba79987192f (hex)

Valid from: 25. May 2021 13:39:39

Valid to: 20. May 2041 14:09:39

Certification Authority: CN = DVV Service Certificates - G5R, OU = Palveluvarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

```
30 82 02 0a 02 82 02 01 00 bb 1c 4e cb 91 f9 e9 e9 41 7d 51 89 be a3 04 fd fa 9b
7b bf b2 79 44 58 39 13 8d 23 b8 31 97 b5 25 a1 43 5e d5 49 70 70 9e 7c a8 24 e7 73
09 25 28 b9 6f c2 b5 eb bf 33 e1 69 41 b6 8f 46 99 7c 88 17 1f 4a 32 99 e6 28 27 24
70 09 64 5e 8f 87 a4 d2 05 48 20 e9 do 2b 1a 15 9f 1f 87 54 41 4b c7 bc 34 98 51 8c
eb a7 d4 8a fb 66 2a 81 90 1e 82 5f 9f dd 9f fa ce fe e9 f5 1a 09 44 d9 30 4f d2 f6
6e 80 04 d4 50 f6 b3 e6 09 6c ed 1d ob 61 31 fo af ec 07 bd 22 ef 90 90 e4 1b 26
9e 81 7b 61 e2 6c e1 4c 96 ed a5 23 47 d5 7e 63 6f 96 ea 27 f3 13 2e e8 a6 51 a3 1f d6
67 19 57 d2 e4 dc do o8 o2 09 d5 5f 99 45 3f 8f 4a 56 db 85 67 6f 77 oa 9f c6 6b
ab 88 78 63 39 4c d3 65 90 6a 2d 3e 47 19 bd 8d ca 4b e7 de 4b cd 58 54 df 35 b6
49 ea dd oe 18 15 4b d5 bo e6 f5 1e 60 40 9a 86 38 ee oa 3a 9a 71 fd 66 52 c8 c9
1e 97 d4 25 16 61 co 8d 9b 54 46 ob c1 e9 53 56 a7 ba f3 5c dd 92 17 8c 29 6d 5a 44
2a 21 b1 o6 89 a6 9c 3c 7d 96 f5 oo d6 e9 ed 65 da 87 5a cd a5 23 1c ad ff 7d 9b aa
5e dd e2 97 c3 81 7e cb 32 01 84 61 69 c7 o8 37 df 2d 52 dc 16 o3 73 83 5a 41 13 16
be c4 a9 d8 77 85 do 53 a8 87 62 bd f9 8d e7 ef cb a7 oe e9 oo 9b ac ec 9a fa f7
36 bf 97 21 c1 fe 96 b4 42 70 a2 bb 3e 37 77 4f 13 ab 9b 39 7a 8e 18 b6 2f e1 57 47 o1
eb 63 oe 49 7c a5 d7 60 be 68 80 od 4d o1 b7 2e 31 34 7b oc 84 b2 30 71 5a f2 e2
```

fd eb 58 7a 77 ed cf 98 cc e9 90 6e 38 99 2b 23 a2 ab 68 de 24 oa 36 83 ca 5d b8
31 77 23 d4 f4 o6 1d 81 b8 68 f4 bb b7 36 b9 df 9b 2b d5 69 35 8e 47 2c b8 6e oo
bc of 4e 68 54 58 e4 c1 be d7 31 ca f5 a6 66 c1 1a 5c dd 8c bc df a6 9d o2 o3 o1 oo
o1

SHA256 thumbprint:

46319C69041DB9A0D93DAE802E3002CC615365931FE0976D392E8863E3F3BE31

- 48 This service is referred to as “Server Certificates – G5R”. The service issues certificates for website authentication. The set of documents describing the service is [17], [48], and [49].
- 49 In addition, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a39f3adfaaffabco1fffd3e62ea6 (hex)

Valid from: 25. May 2021 13:41:08

Valid to: 20. May 2041 14:11:08

Certification Authority: CN = DVV Social Welfare and Healthcare Prof. Certificates - G2R, OU = Sosiaali- ja terveydenhuollon ammattivarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 b5 5a b4 5d 75 fo df 45 2c 78 ff 3a cf be b1 da 89 52 ae
1f 4a aa af 35 e9 98 b4 a9 59 99 71 49 29 3d 51 94 4a 7d 71 28 4e 71 51 8c 9c 12 79
db d7 57 67 7e 98 a3 b9 b4 52 78 6f e1 95 34 ce 53 fd 2a 5e fb 39 ad 88 e5 o3 fo fe
25 c6 e3 7a ba fc 81 36 16 aa 7c d4 31 5f ff a4 a1 61 78 3c 82 54 9f a6 ab 96 d9 65 ee
43 d9 ed ef 2b 8d 7d fc 82 43 4e 60 21 f8 74 2f 42 9a 59 2e 26 8c eb 97 co b2 64 24
e5 2f dd 6c e3 e5 15 80 71 3c 33 45 6b 63 40 1d 9e 90 48 48 b7 fe c1 34 71 f6 88 8a
4f 10 c7 58 cb d5 17 53 19 45 c9 c3 83 c7 da 66 20 8f 50 f1 o3 a7 63 8a o2 bb 71 ob
4e d2 58 bf 46 24 82 71 b5 ad 79 41 b3 bf 45 4a d1 65 79 54 f4 ce ba 63 8b 70 32 e6
9c 3c oc 3a 10 b6 2d 6c 69 d8 d3 d8 92 63 82 57 62 a1 oa c4 20 6a d3 c8 e4 9d 22
27 4c 99 ac 7d 81 68 74 48 16 d1 ee a9 2e o8 66 1e cb b2 cf b3 e1 b8 e3 96 21 e4 ed
7a 4a a5 f9 7e c5 o1 44 2c 1c af 16 fb 83 e4 ba 74 59 oa 4a 93 24 30 1e 2a 99 b3 c4
60 73 1a 43 1b 7e 90 7b f6 f2 7e 7e 5d ce dd 9d 2a 80 5d d4 5e 79 4f a4 64 60 50
40 bd 4d dc 34 of b7 aa 7d 7f bb dd 23 64 1e 73 9c 21 9c a8 77 c7 73 7c o4 f3 91 8b
f2 57 o5 oc 98 81 of 10 8c 9d 3b a5 53 1e 62 cc 87 62 82 50 bc e8 eb d2 a8 f3 1e 45
7a 9f eb 22 cd cc 6b 9f 3e 55 b4 25 df 61 d6 74 bo a8 c4 d9 6a af 1b 72 7f 62 9a 3d
a9 5f 20 2e 11 e4 83 f3 7b 68 6e 54 42 31 bc 52 84 34 44 79 2e a1 b6 60 e2 83 68 f1
5c 63 91 51 56 e5 8e e6 28 44 d3 fb b9 fo d3 da d8 25 71 c5 74 ff e4 62 a6 ab ed 56
53 ec 84 91 b3 6c 8d 74 2e fd 4e 57 22 o7 o6 bo 6b o8 ao 1a a2 4b ff 68 of 8e c9
84 e6 c6 72 39 6e b3 10 e5 60 e2 e7 bf co of 50 5d 31 85 o2 o3 o1 oo o1

SHA256 thumbprint:

6073359DE6BDFBF83874CBD53D4BDE3D8165A8E7A9F772Fo2A7C6A48A8E7B77
B

- 50 This service is referred to as “Social Welfare and Healthcare Professional Certificates - G2R”. The service issues certificates for authentication and nonrepudiation to social welfare and healthcare regulated personnel, where the private keys reside in a secure signature creation device. The set of documents describing the service is [14] and [39].
- 51 In addition, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a3a6e94664d8c5feg7c2aegdca (hex)

Valid from: 25. May 2021 13:43:57

Valid to: 20. May 2041 14:13:57

Certification Authority: CN = DVV Social Welfare and Healthcare Service Certificates - G3R, OU = Sosiaali- ja terveydenhuollon palveluvarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

30 82 02 0a 02 82 02 01 00 e3 dd 50 f4 d3 e2 1c a3 7b d4 4e fb 4c c9 cc db bo 50
d2 fb f8 07 9d 44 6c 60 56 06 09 15 c2 67 14 0a 77 dc e8 45 a6 ob a4 b7 d7 93 86
b7 73 a4 ff f6 10 2f 2b 10 d1 2a 25 c7 69 5e db a3 3e 27 cf a7 f1 fd b9 46 42 d7 a8 79
55 46 8f 92 f6 eb 7e 3c 5d 7e 6b dd ea d1 a6 d3 40 83 72 92 eo eo co c6 f1 78 82 49
b6 40 c3 ed od 80 65 41 fo df 4b d8 88 93 ad de 4f e8 95 42 ob 6a 9c 6d 04 5e fa
76 29 08 oc 96 73 10 f1 44 59 3a e7 09 f1 54 9d 7c df a7 2b fg 31 b2 6a d7 5f ef 56
07 6b 96 9c 9b af af de c3 37 01 37 11 5c b9 59 9b b3 72 c5 8c 76 e5 od c8 95 dc e6
of 8b dd 9f b9 e9 6e 4d d8 43 f3 a4 a5 a8 5d 16 d2 d9 38 8e f5 fg cf af 2a 15 oe 2f
ad 3f 6f 18 5f fe b2 14 fa 10 60 6c 86 2c ce 70 c6 99 00 43 85 bd cf ad 67 2e 84 c9
57 96 ad 1c 22 84 ae 21 ab 51 08 9c f1 19 ed 46 65 d3 a8 de 5f 25 3c 2f 59 c8 13 c1 f1
ba 5e 50 76 97 e7 ea ce 30 bo f3 4a ob 48 67 7c bc 97 4c 7c aa 27 ee 92 46 ff b2 f7
6c 5e b5 30 a4 69 93 26 a1 d5 bf c3 3a 5b bd de 2d 1c 71 b5 f1 bd c7 53 84 dd 1e fa
ed 71 81 8f ee ef 32 9a 95 56 dd 3a 55 20 1e 81 b9 bb 68 32 f6 07 8a bc 84 d1 bb ff
10 b6 4f 4c 00 6c e6 c6 61 33 83 9f 5f cc 78 de c1 3e ae dc 7a 74 fo 28 ea 46 77 2d
a9 c5 ce 7f aa 82 fd 6c ab 7e 92 e4 c4 f7 a2 ca ba 43 e6 57 e9 47 22 81 08 35 1b 2d
eo d1 30 13 89 6d f3 42 fo af 3f 9a 16 f1 20 b5 5b 49 4d a9 a9 ef 8c e4 c6 7c a6 60
ea 09 50 3b 7a 2d c5 72 co 8e c5 55 ed a8 c5 40 d8 9e 19 97 65 e8 09 53 9b f3 03
e8 5f c9 b5 63 27 38 57 co 81 7c oc 46 2b 9d 4a 94 9e 69 a5 c7 d4 ba 6e 97 97 73
bf 41 bc 2b f5 a6 46 51 3d e6 96 ff 4f 96 87 2f 54 f5 a7 5d 02 03 01 00 01

SHA256 thumbprint:

9D433C237C3AEE7A676C9A2ED4ECCB9E40ED17914655571624FoA89969B634B
F

- 52 This service is referred to as “Social Welfare and Healthcare Service Certificates - G3R”. The service issues certificates for website authentication to registered social welfare and healthcare providers. The set of documents describing the service is [17], [48], and [49].
- 53 In addition, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a3978c5aee5f5d9606cedfc144 (hex)

Valid from: 25. May 2021 13:35:03

Valid to: 20. May 2041 14:05:03

Certification Authority: CN = DVV Temporary Certificates - G3R, OU = Tilapaisvarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

```

30 82 02 0a 02 82 02 01 00 9b 7f 1f 1f a4 56 c8 58 73 89 5c d7 f9 7d 1c ed 04 3c oc
ed e5 22 d7 20 a6 fe 56 5a b7 a4 8e 09 73 35 b3 5f 3f 36 60 10 ff 2c 07 8f ca 49 b4
ce 1f 41 db 95 e1 61 3f dd 79 33 72 56 29 b1 7c ac 39 6d 76 47 7d d8 cd 15 79 49 4e
79 93 8a 18 4b c8 0b bf fa 9f 3a 77 fb ca 2f 3d bf 77 ec 4e 6e 12 1f 7a 6a 7a 64 62 2a
2f 48 84 07 do 60 2d 17 00 fc 23 1f 07 63 37 fa 18 43 03 d1 56 1e 1f 7a f8 9b 7d 80
5b 3f da 3b c3 eo 69 36 40 3f 66 66 7c 33 6b fe e4 f3 ao 2e cb 75 b5 db fb 34 9d 7f
a4 b7 38 8c f8 oa 6a fa a4 2e 73 80 95 30 46 d5 66 03 78 12 ff 53 d7 ao 15 b7 03 90
b3 49 e2 c1 ac 79 72 2a ab 34 86 8a 8b e1 a4 37 c5 ff 46 99 c1 6b b4 5f a3 eb 41 b1
42 4b 43 eb cc bb c9 ae e8 ac f4 b8 a6 09 ce 64 ed 76 75 9d ec a9 39 c2 37 97 86
70 2c f3 63 c6 e3 08 d2 bd bf 36 c2 fe 39 69 do 3d 56 a8 96 87 1c 15 e8 3d 7a 2d c7
9e 29 6b 05 3e 9f f5 fo e8 76 4c 91 65 f7 af 84 77 31 c6 c7 8b 6a 6d 09 dc 48 e2 5f
ef f3 24 2f 09 01 f5 bf oa 3a 39 01 a1 02 44 bf 06 89 ea c6 db 9a 3d df 2b 2f oc cb
ca 5f 64 ce 4d 62 4a b4 7b e5 6e 8c bo d5 56 ao 2a af 8a ae 6f 05 2d ee a3 od 38
3e d6 89 fd ac ab ba 28 a6 da 98 oe 44 95 8d a5 b2 cd c5 7a 7f a3 99 82 55 37 26
d2 9d fe 71 do 7a cf 45 84 23 7e 3a d1 31 25 77 37 42 21 c7 80 26 b7 82 3a 6d b1 75 ff
f8 35 88 7a 42 aa 2d 67 20 00 a6 de ce 60 20 8f 81 cf d8 29 73 c6 ed 8f d8 f9 97
06 28 6a 45 f2 6e fo 1e a4 d4 fe 25 fb 27 b6 38 00 bb 08 bo 66 08 ee dc e6 7e b3
a9 29 12 84 5e 01 01 40 dd 27 d9 1d 30 c5 5a a5 ef 97 94 51 20 e8 78 06 6f 9e 6f 69
ac 28 66 c5 of f5 77 ao e6 23 df 93 14 co c4 4e 21 48 a5 5b 02 03 01 00 01
  
```

SHA256 thumbprint:

428089726472CA75A47F8E011AEB6483036973C72CF05478953B2FC2E012B731

- 54 This service is referred to as “Temporary certificates - G3R”. The service issues certificates for authentication and nonrepudiation to organisational personnel, healthcare non-regulated personnel and healthcare national operator personnel, where the private signing keys reside in a secure signature creation device. The set of documents describing the service is [11] and [36].

- 55 In addition, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a3a390119317475e07e2dd4fc8 (hex)

Valid from: 25. May 2021 13:38:35

Valid to: 20. May 2041 14:08:35

Certification Authority: CN = DVV Social Welfare and Healthcare Prof. Temp. Certificates - G2R, OU = Sosiaali- ja terveydenhuollon tilapaisammattivarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

```
30 82 02 0a 02 82 02 01 00 ac 7f 46 a2 98 f4 12 ae 6c 63 1b a5 be ea 9b ag 26 0e
a1 af f3 df 49 3f 6b 2b b2 fo 20 50 45 1a dc c4 87 9b e1 30 59 97 05 d8 6e e4 6e 65
0a ce 36 21 28 e5 1c 08 ef 41 58 13 3c 92 e8 6d ba 17 45 31 d7 d3 dc dc bc 83 34 80
fd d2 84 5e 09 70 6f 49 f7 c3 86 68 eo 5d 61 15 19 e8 b3 cd 05 ao 84 do 7a 40 86
5d 12 2a 7c 17 18 dd 46 20 03 85 d9 do 18 9d 08 ao 03 ao eo 40 ff 23 c4 b5 9d 73
19 e6 90 82 71 42 58 6d cc f5 d2 fe 4f 2c be 2a 73 fe 36 33 6f 8e 58 of 07 91 bc 8c
4c 98 do c1 b3 5f a3 87 d9 b7 c4 c9 66 47 f6 1e e3 db 4b d9 a7 38 f3 80 fa fo ag d5
77 b4 18 2b 93 36 bc ac fc b3 5b de dc 97 59 5a ba 7d 65 96 ea f6 ae 52 a4 1e 78 9f
58 db dd d1 c8 de ef 4a 3a 44 b8 ce be a2 3e c1 f8 6b 4b 51 2b ea a3 3b 3d 45 68 73
78 52 d6 7d e5 1c be 1f 89 f9 a1 fe 8c 4e e4 47 74 9b a6 ba b3 4b f1 co aa bc 6a 3d
bf da 40 c4 31 c1 72 82 56 56 c6 2b f9 a1 4c 88 3d 33 b1 75 36 a9 2c da 1c a3 26 9b
2a 2a 1a e9 c9 do cd 18 03 68 1d 4d 1a b7 b8 93 3d 4e 97 fe 17 e7 a8 fa d7 oa 2e 64
87 65 6b ag 10 a3 01 a8 b7 45 6f d1 of d2 30 21 4f 51 c2 14 9d 88 2f 6a 9d eg a5 06
46 do 98 bd f2 19 oe 7f 13 12 57 a5 4b 88 7b 2b 3d ab 60 c6 bc d4 24 86 03 9e 48
5a 44 c8 cd d2 57 c5 8d eo 7e e1 89 do f7 8f f3 16 4e f1 44 14 2f 47 36 7f 90 do 19
b8 49 af 66 1a 5a a9 32 e9 5d e6 bd e7 01 1a 45 co c8 53 9b 09 of ec 96 76 40 35
19 1b 8f 73 3a 05 d2 f3 af 2c 23 05 11 5b 21 3b f7 43 90 16 a2 61 3e 51 7f 73 19 e7 9b
f3 74 9b 4c do 88 2f 7f e7 3e 61 82 37 cd 9e f6 eb 99 f6 3a bo 94 do 74 e4 ao c3 85
fc 14 9a ff 20 47 02 b4 b8 c5 f5 3c 03 1d 30 ad fe 9c 29 00 45 02 03 01 00 01
```

SHA256 thumbprint:

6E73C6A3422AE3BB37AF6D3933092A1F6959C09EB17FoA7E14F539665F50C949

- 56 This service is referred to as “Temporary certificates for social welfare and healthcare professionals - G2R”. The service issues certificates for authentication and nonrepudiation to social welfare and healthcare regulated personnel, where the private signing keys reside in a secure signature creation device. The set of documents describing the service is [19] and [41].

Root Certificate DVV Gov. Root CA - G3 RSA

- 57 The full annual audit covered the root CA certificate, which issued the aforementioned subordinate CA certificates. It is identified by

Issuer: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 017940cbf49afec66649c9fo7905db (hex)

Valid from: 6. May 2021 10:30:42

Valid to: 5. May 2042 10:30:42

Certification Authority: CN = DVV Gov. Root CA - G3 RSA, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha512RSA

Public key (ASN.1-notation): 4096 bits

```
30 82 02 0a 02 82 02 01 00 c1 9f 02 80 81 2d 89 84 61 66 4b 1b 3b a3 04 e1 51 9a
1d 20 08 8a 16 60 a4 f3 3c 4c ea 1b 90 3c 61 29 2c ff 1e 4a 29 df 44 2f a7 67 95 e7
c4 77 92 86 0b 5a ad 3e 25 67 8e bc f8 c2 fo 2b 9f b1 95 90 5d 11 5c a7 93 5e 49 31
8b 52 12 ad fe bo 1e e7 e1 31 63 c4 25 74 e2 ac 39 e5 09 56 36 3a 62 f8 08 6a 69 71
41 4a eo 8f bb 78 f6 78 eb dd 12 69 f4 9e 48 3b 87 c7 04 ea ff 3b 88 5f 7f 44 dc 2c
45 34 da 6a ec 36 84 04 7b 1f 4c 01 1a a9 62 1f 9c 77 03 d4 9b d9 88 bc 46 d1 eb cd
51 1f 2a ed 3d 4d 06 07 11 bf c1 73 36 32 e9 c1 1a 82 de 43 46 ad 82 96 ee eo a8 a9
3e 6e b9 f2 2b ob 64 f3 d1 93 4d 7b 8e fo c5 16 7b cd 13 04 85 9f b3 d5 ef 6d d7 13
b9 2f 7e 1b dd 17 9b 6b 84 d4 9c f2 66 7b 75 92 d7 91 42 03 1e e9 a9 f9 b6 10 03 e6
dd 26 2f 46 ef a2 45 33 53 9d 97 be 55 7b ae 22 85 84 62 e6 38 21 09 15 a3 25 07 57
62 8d d7 3d f3 oc dc 64 2a 26 83 6a 07 2f c3 09 5f 4b f3 fo 4e d8 ea 36 5f 66 35 9d
e2 2d f8 3b ao ec d3 ob 25 82 58 cf bf 02 03 18 e3 70 ba 64 ba aa 2b 86 of 3a f7 ba
e8 55 9f e6 e8 fb 72 94 ae b9 22 99 ed a1 58 ca 77 07 ba 55 eb 79 a8 ba 73 96 43
80 ac d3 98 e1 73 5e 56 77 94 ae 41 17 59 15 6c 80 4b cf 5a bo 41 de ob ac c6 16 2d
c7 e3 39 d8 c5 ac 39 ce 3f 9a df b7 d6 4f 7e be 8a 9f c2 29 16 4f 05 ca 00 c9 28 89
8c 91 19 1a 05 cd 75 5b oa 37 27 eo 22 52 58 2d 58 3a b4 62 f3 09 3f bc cc eo 63 3d
7a e9 f1 ed ao bc fc e9 f9 e1 27 af 45 4b d2 44 34 7a ao 16 48 72 33 a9 5d 27 4f 15
da 4d 8e 1d 9e 56 b1 64 57 90 a8 f9 dc 48 ed 66 05 40 f4 54 1b d6 81 e2 7a d1 73
36 07 8c 3b f3 da da 83 5b 5f oc 78 76 a3 fd 9d 15 25 de 87 02 03 01 00 01
```

Thumbprint of the certificate (SHA256):

D3ED3FC40AD26B52E001E1E18F4B9449529DEB75A81D5EB680D7B62DB23BA96
D

- 58 The audit was completed successfully without critical findings.
- 59 For contact information, see page 2.

Issuing Certificates signed by DVV Gov. Root CA - G3 ECC

- 60 Furthermore, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 ECC, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a35efb50ba611d7e96320b2aa3 (hex)

Valid from: 25. May 2021 13:21:23

Valid to: 20. May 2041 13:51:42

Certification Authority: CN = DVV Citizen Certificates - G4E, OU = Valtion kansalaisvarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha384ECDSA

Public key (ASN.1-notation): ECDSA_P384, 384 bits

```
04 81 28 90 7f 81 39 af 78 98 81 4d f3 5a 98 a6 76 97 76 8a ac 6e 8b 3a 2c 0b 17 c7
c7 ad ba 77 9a 2e e6 ec od 4f 05 6e 50 94 f7 c3 25 87 71 96 78 8d 6b ca 03 74 d5 39
79 41 f3 30 a9 65 e0 28 cf b5 84 15 4c a6 1f 47 5e ce 84 51 14 b2 8b oe 4c eb 1d 7e
do b5 be e5 53 6a ae 2e 1f 75 bf eb 84
```

SHA256 thumbprint:

```
AAD1BEAC4696102A88BF9D518D64F8B014F78F9B152579C959998313197924D7
```

- 61 This service is referred to as “Citizen qualified certificate - G4E”. The service issues certificates for nonrepudiation and authentication to citizens, where the private signing keys reside in a secure signature creation device. The set of documents describing the service is [3] and [22].
- 62 Furthermore, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 ECC, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a3670fb3ccc2e867398a0103ae (hex)

Valid from: 25. May 2021 13:30:38

Valid to: 20. May 2041 14:00:38

Certification Authority: CN = DVV Organisational Certificates - G4E, OU = Organisaatiovarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha384ECDSA

Public key (ASN.1-notation): ECDSA_P384, 384 bits

```
04 4d 62 ec 9e 17 64 5d ba 74 e3 6d 17 33 3c 20 67 5b 29 2e 6f 88 36 4f 77 e9 c8 b6
4a 5c 76 d5 7d 3b e1 7c 9b 2b 69 1b 2a 4c ac 3d eo 00 15 ef 15 47 f6 b3 64 9b 49 56
```

74 91 91 16 51 03 45 b4 of do 7b cf 23 fb bc ef 41 f6 bf 11 bc 14 od 51 65 ad 9d c3 1a
40 1e 51 29 9c 23 64 9f 41 a3 8a 33

SHA256 thumbprint:

8FDBDCCB5820F1C79EF8BCE190E2B3CD2CC3DoB6BD8311B1F75FBD48BBC230D
4

- 63 This service is referred to as “Organisation Qualified Certificates - G4E”. The service issues certificates to for authentication and nonrepudiation to organisational personnel, healthcare non-regulated personnel and healthcare national operator personnel, where the private keys reside in a secure signature creation device. The set of documents describing the service is [6], [31], [32], [33] and [34].
- 64 Furthermore, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 ECC, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a39cdd1496bf683b2044650e56 (hex)

Valid from: 25. May 2021 13:40:27

Valid to: 20. May 2041 14:10:27

Certification Authority: CN = DVV Service Certificates - G5E, OU = Palveluvarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha384ECDSA

Public key (ASN.1-notation): ECDSA_P384, 384 bits

04 3b 72 4c b1 a1 6d ce f5 bo 2e 57 47 ef 44 dc ec cb 44 f4 ao 6e 88 8b fc 98 b9 2c
94 ff 7a b9 16 75 01 94 9e 37 a4 f4 17 ec 3f a1 65 ao 01 36 a2 89 4a oc 80 15 18 e8
52 66 e5 c3 da 5f 9b 09 96 12 a6 a3 05 do d5 4e 8f 01 e1 e5 o8 15 f6 d8 a5 fe df 6d
53 ab 1f 33 ac 14 eo 8f of d8 f4 aa e3

SHA256 thumbprint:

93C176167ECA02A1B262B16517AC5FB5FC25D3568D97ECDDDo4E3A6126B6C7BA

- 65 This service is referred to as “Server Certificates - G5E”. The service issues certificates for website authentication. The set of documents describing the service is [17], [48], and [49].
- 66 Furthermore, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 ECC, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a3a1683ec94b58d9233e0e78aa (hex)

Valid from: 25. May 2021 13:41:41

Valid to: 20. May 2041 14:11:41

Certification Authority: CN = DVV Social Welfare and Healthcare Prof. Certificates - G2E, OU = Sosiaali- ja terveydenhuollon ammattivarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha384ECDSA

Public key (ASN.1-notation): ECDSA_P384, 384 bits

04 84 dc 74 67 6c 04 a4 df 9a 99 49 c4 89 96 1d 21 14 bc 9c 91 c4 12 19 5b f5 3b fd
e1 b3 b6 5e 26 75 09 dd 06 f4 9f d7 8d ce 8c b3 48 96 86 8c 82 81 84 cd co 07 16
1f fc 21 oc be 85 38 fb 7b 44 25 fe 72 35 ec f8 a1 64 fe df b5 eo 23 05 ef ob 05 oa 86
24 1a 8e e7 e4 d6 bc ae 7e e3 71 62 1b

SHA256 thumbprint:

A155B9FB8A372683A3825054F9A5265C55430A68616BAD8A1726E70F09F95A26

- 67 This service is referred to as “Social Welfare and Healthcare Professional Certificates - G2E”. The service issues certificates for authentication and nonrepudiation to social welfare and healthcare regulated personnel, where the private keys reside in a secure signature creation device. The set of documents describing the service is [14] and [39].
- 68 Furthermore, the recommendation refers to the service provided under the CA certificate:

Issuer: CN = DVV Gov. Root CA - G3 ECC, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 0179a3a8d9ce45add46f9d72bbc99b (hex)

Valid from: 25. May 2021 13:44:24

Valid to: 20. May 2041 14:14:24

Certification Authority: CN = DVV Social Welfare and Healthcare Service Certificates - G3E, OU = Sosiaali- ja terveydenhuollon palveluvarmenteet, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha384ECDSA

Public key (ASN.1-notation): ECDSA_P384, 384 bits

04 6f 81 5b 83 39 c6 c4 64 7c 2e c6 2a 75 47 fe 51 d0 55 27 ec 7c c3 5a 5c d8 b1 25
40 a7 46 1f 7c 4c 39 b9 fb 1d 46 d7 97 ba 48 86 cd d6 c9 06 7e bo 9a 7b 90 6b 72
f9 b4 61 3b f9 72 ed a2 fd ea a3 05 67 83 5c 39 b3 84 8f 9f 52 6f 95 b5 69 cf af 7e
11 od ob f9 95 83 73 3d dd 9d 9f 67 fb ed

SHA256 thumbprint:

A5C53CF6843A395E6EC244E9B27D58413295428DED97586FD4F67AA4AB8D49A
0

- 69 This service is referred to as “Social Welfare and Healthcare Service Certificates - G3E”. The service issues certificates for website authentication to registered social welfare and healthcare providers. The set of documents describing the service is [17], [48], and [49].

Root Certificate DVV Gov. Root CA - G3 ECC

- 70 The full annual audit covered the root CA certificate, which issued the aforementioned subordinate CA certificates. It is identified by

Issuer: CN = DVV Gov. Root CA - G3 ECC, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Serial No.: 017940a7b5da7d901ca94bf25aaeae (hex)

Valid from: 6. May 2021 09:51:30

Valid to: 5. May 2042 09:51:30

Certification Authority: CN = DVV Gov. Root CA - G3 ECC, OU = Varmennepalvelut, OU = Certification Authority Services, O = Digi- ja vaestotietovirasto CA, C = FI

Information on Algorithm: sha384ECDSA

Public key (ASN.1-notation): 384 bits

04 b3 2d ca 3f 8a ae 92 24 0a 92 ca 05 e6 e2 6b od 7d cf 2f 89 ab a7 5a 55 f7 06
a6 60 5e a3 2e af 48 6d dd oe c4 33 2a ca ab 54 99 7a 88 8a cf b3 2f 13 28 d6 dd
eb b3 a8 d6 59 ca e7 c5 1a oe dc 8d 8a ac bo 6b 6d 51 86 ef 94 4a fa e8 be 4b ed
56 71 fo 1d ea 4b b5 f5 63 59 12 b8 af 89 b1 30

Thumbprint of the certificate (SHA256):

5546A52504FBA74F61FFD4890067529ADE3B9C9D07E502592831CCDA9B369F
D3

- 71 The audit was completed successfully without critical findings.
- 72 For contact information, see page 2.

References

- (A) ETSI EN 319 411-2 V2.2.2 (2018-04): Electronic Signatures and Infrastructures (ESI); Policy and security requirements for Trust Service Providers issuing certificates; Part 2: Requirements for trust service providers issuing EU qualified certificates
- (B) ETSI EN 319 411-1 V1.2.2 (2018-04): Electronic Signatures and Infrastructures (ESI); Policy and security requirements for Trust Service Providers issuing certificates; Part 1: General Requirements
- (C) ETSI EN 319 401 V2.2.1 (2018-04): Electronic Signatures and Infrastructures (ESI); General Policy Requirements for Trust Service Providers
- (D) DIN EN ISO/IEC 17065:2013-01 „Konformitätsbewertung – Anforderungen an Stellen, die Produkte, Prozesse und Dienstleistungen zertifizieren“
- (E) ETSI EN 319 403 V2.2.2 (2015-08): Electronic Signatures and Infrastructures (ESI); Trust Service Provider Conformity Assessment – Requirements for conformity assessment bodies assessing Trust Service Providers, Version 2.2.2, 2015-08, European Telecommunications Standards Institute
- (F) ETSI EN 319 421 V1.1.1 (2016-03): Electronic Signatures and Infrastructures (ESI); Policy and Security Requirements for Trust Service Providers issuing Time- Stamps

End of Audit Attestation