



Jukkola Auli

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# **CERTIFICATE POLICY FOR TEMPORARY CERTIFICATE**

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Jukkola Auli

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Prepared by	Ville Aarnio, Auli Jukkola
Inspected by	
Approved by	Mikko Pitkänen

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# Certificate policy for temporary certificate

## Definitions and abbreviations

### Definitions

**Activation data:** Confidential data (PIN code) that is needed to activate private keys stored in a microchip and to use them in public key methods.

**Activation code:** Activation data, which is the certificate holder's personal activation code needed for activating and defining certificate holder's personal PINs. In addition, the activation code can be used to release a locked PIN.

**Key pair:** A pair of interconnected keys, one public and one private, which are used in public key methods. The keys' purpose of use is defined in the certificate (see certificate holder's authentication and encryption certificate).

**Asymmetric encryption:** A pair of one public key and one private key is used in asymmetric encryption. A message that has been encrypted using a public key can only be opened by the private key of the key pair in question.

**Public key:** The public component of a key pair used in asymmetric encryption in public key methods. The CA certifies with its digital signature that the public key belongs to the certificate holder. The public key is part of the data content of the certificate.

**Public key infrastructure:** A data security infrastructure in which security services are provided by public key methods.

**Public key method:** A data security service, such as electronic identification, which is provided by using public and private keys, certificates, and asymmetric encryption.

**Card reader software:** Card reader software is used in workstations as a so-called end-user application. It enables users to use their cards and certificates stored on it in various user and application environments such as public e-services, secure email and logging on to workstations.

**Trusting party:** A party that trusts the certificate data and uses the certificate for various data security services such as electronic identification of the certificate holder.

**Payment card:** Generic term for debit, credit, combination, prepaid and delayed debit cards.

**Microchip:** A technical platform that is used to store the certificate and private keys, integrated into a smart card, identity card, payment card or mobile terminal card.

**Mobile terminal:** A mobile telephone or other mobile terminal that can use a certificate and private keys on a microchip.

**OCSP:** Online Certificate Status Protocol, an online service that checks the status of a certificate.

**Organization certificate:** A qualified certificate issued by the Digital and Population Data Services Agency to a natural person; the data content of the certificate is determined by the Act on Strong Electronic Identification and Trust Services.

**PIN code:** Activation data that activates a private key held on a microchip. PIN 1: the basic code for authentication and encryption.

**Registration authority:** The registration authority identifies the certificate applicant in accordance with the certificate policy and certification practice statement on behalf of and at the responsibility of the Certification Authority.





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**RSA algorithm and RSA key:** The RSA algorithm is a common public key algorithm. The private and public keys associated with a temporary certificate are RSA keys.

**Revocation list:** A list of certificates revoked before the end of their validity period and the revocation dates, electronically signed, and published by the Certification Authority. The revocation list specifies the publication dates of the current and next revocation list. Revoked certificates are added to the list.

**Revocation service:** A technical service provider that receives certificate revocation requests and submits them to the certificate system on behalf of the CA.

**Regulated healthcare professional:** A person who, on the basis of the Act on Health Care Professionals, has been given the right to practice a profession (licensed professional) or the authorization to practice a profession (authorized professional) and a person who, on the basis of the Act, is entitled to use the occupational title of a health care professional as laid down by Government decree (professional with a protected occupational title) and who is registered in the central register of health care professionals.

**ID card for regulated social and health care professional:** An ID card issued by DPDSA to a regulated social and health care professional which contains a professional certificate.

**Non-regulated healthcare workers:** Healthcare service providers, as referred to in the Act on Health Care Professionals (559/1994), who are not regulated healthcare professionals. This group includes e.g. workers in the support services, office, and IT services of a healthcare unit. A person who works for a healthcare service provider organization and is not a regulated healthcare professional.

**ID card for non-regulated social and health care worker:** an ID card issued by DPDSA to other healthcare worker (other than healthcare professionals) which contains a certificate.

**Healthcare student:** Subject to the conditions laid down by Government decree, the tasks of a licensed professional may, on a temporary basis, be conducted by a person studying for the profession in question under direction and supervision of a professional who has been licensed to practice the profession independently. The provisions concerning healthcare professionals laid down in the Act apply to students as appropriate. Medical, dentistry and pharmacy students are issued with an ID card for regulated healthcare professional. Students of other healthcare professions who meet the conditions for practicing the profession in question on the basis of Government decree are issued with an ID card for non-regulated healthcare worker which is specific to the organization in question.

**Non-clinical healthcare sector staff:** Employees of healthcare service providers who are not regulated healthcare professionals or non-regulated healthcare workers. This group includes other individuals and specialist groups who have access to the national information systems, such as data protection officers, IT system suppliers, consultants, etc.

**ID card for non-clinical healthcare sector staff:** An ID card issued by DPDSA to non-clinical healthcare sector staff which contains a certificate.

**Temporary certificate:** A certificate issued by DPDSA to a natural person which can be used for authentication and encryption or authentication, encryption, and electronic signing.

**Replacement card:** A replacement for an organization-specific ID card which contains the cardholder's temporary certificate in its technical component (microchip). In special circumstances, a replacement card can be issued to a person who does not hold an ID card of the organization in question.



**Certificate:** A electronic certificate which enables a person's authentication and data encryption, links the signature verification data to the signatory and identifies the signatory. A certificate contains an OID (object identifier) that identifies the certification practice statement in question.

**Certificate system:** A technical data system used to create certificates and sign revocation lists.

**PKI disclosure statement:** A document that contains the main points of the certificate policy and certification practice statement.

**Certificate policy:** A document that describes the principles of certification and the responsibilities of the trusting parties. The certificate policies published by DPDSA are publicly available. Each certificate policy is identified by an OID.

**Certificate register:** A register maintained by a Certification Authority that issues certificates to the public. Data are held for at least 5 years after the expiry of the certificate.

**Certificate management system:** A data system consisting of certificate systems, data communications, a certificate directory, revocation list service, advice and revocation service, certificate management and card management. CPS OID is part of the data content of the certificate.

**Certification practice statement:** A description of how the Certification Authority implements its certificate policy. Each certification practice statement is identified by an OID.

**Certification authority:** An organization that issues certificates, is responsible for their provision and draws up the certificate policy that describes its operation and the associated certification practice statement.

**CA certificate:** Contains the name, country, and public key of the Certification Authority.

**CA's private key:** The private key used by the Certification Authority to sign its issued certificates and published revocation lists.

**Certificate applicant:** A person who requests a temporary certificate and is reliably identified in conjunction with the request.

**Certificate holder:** A person whose identity and public key are verified by the CA's digital signature and who holds the private keys linked with the certificate in question.

**Certificate holder's authentication and encryption certificate:** A certificate used for electronic personal identification and data encryption. The certificate holder uses the private authentication and encryption key for electronic identification and decryption of encrypted data or messages. The use of the key requires a basic PIN code (PIN 1).

**Certificate usage and purpose:** In this document, certificate usage refers to the use of the certificate and the associated keys.

**Private key:** The private component of a key pair used in asymmetric encryption in public key methods. The private keys of the certificate holder are stored on a microchip to protect them from unauthorized usage.



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## List of abbreviations

<b>CA</b>	Certification Authority
<b>CP</b>	Certificate Policy
<b>CPS</b>	Certification Practice Statement
<b>CRL</b>	Certificate Revocation List
<b>FINEID</b>	Finnish Electronic Identification
<b>HSM</b>	Hardware Security Module
<b>EPI</b>	Electronic Personal Identification
<b>HTTP</b>	Hypertext Transport Protocol
<b>ISO 27001</b>	ISO/IEC 27001
<b>LDAP</b>	Lightweight Directory Access Protocol
<b>OCSP</b>	Online Certificate Status Protocol
<b>OID</b>	Object Identifier
<b>PDS</b>	PKI Disclosure Statement
<b>PIN</b>	Personal Identification Number, PIN
<b>PKI</b>	Public Key Infrastructure
<b>RSA</b>	Rivest, Shamir, Adleman, a public key algorithm, asymmetric algorithm
<b>DPDSA</b>	Digital and Population Data Services Agency



## 1 Introduction

The certificate policy is a document drawn up by the Certification Authority (CA) which describes the practices and principles used in certification. The certification practice statement is a more detailed description of the CA's activities than the certificate policy.

This certificate policy applies to temporary certificates issued by the Digital and Population Data Services Agency. The certificate data are relayed to a public directory for use by a party trusting the certificate with the certificate applicant's approval, or otherwise according to an agreement with the client organization.

A temporary certificate is a certificate that supports the use of DPDSA-issued organization certificates, OID: 1.2.246.517.1.10.303 and 1.2.246.517.1.10.353.

### 1.1 General points

A certificate is an electronic certificate that links the signature authentication data to the signatory and identifies the signatory. The certificate data are signed electronically by the CA's private key. Certificates under this certificate policy are based on a public key infrastructure and public key methods. The data contents of certificates under this certificate policy are determined by the Act on Strong Electronic Identification and Trust Services.

A temporary certificate is an authentication and encryption certificate or a combined authentication and encryption certificate and signature certificate. Identification is verified by the CA.

A temporary certificate under this certificate policy can be issued to organization customers. If the organization customer registers temporary certificates for non-regulated healthcare workers or non-clinical healthcare sector staff, all parties referred to in this certificate policy shall comply with the certificate policy and the requirements of the act on the electronic processing of client data in social and health care (159/2007) and the act on electronic prescriptions (61/2007) and other regulations issued under them.

The CA uses an identifier to identify the certificate holder. This identifier is also a part of the data content of the certificate. The identifier is a technical data item created separately for e-service access, and it does not contain any personal information. A temporary certificate can be stored on various ID cards.

Both the certificate policy and the certification practice statement of DPDSA have a unique object identifier (OID).

The CA's activities include the provision of certification, directory and revocation services, registration, and ID card creation and identification. These activities are described in Chapter 1.3.

The CA draws up a separate certificate policy for each type of certificate issued by it, and a separate certification practice statement for each technical platform. The certificate policy contains a general description of the practices, terms and conditions, responsibility allocation and other matters related to certificate usage for each type of certificate. The certification practice statement contains a detailed description of the applicable practices.

Regulation (EU) No. 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC shall apply with regard to signature certificates in trust services as of 1 July 2016. This document describes the procedural requirements concerning the activities and administrative practices of certification authorities that issue identification and signature certificates



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under the Regulation. The use of a secure signature creation device is described in the procedural requirements specified in this document.

The CA is a certification service provider issuing certificates to the public.

According to the Act on Strong Electronic Identification and Trust Services (617/2009), the DPDSA acts as an identification service provider when it offers certificate-based identification devices to the public. In Finland, identification service providers are supervised by the Finnish Transport and Communications Agency.

In addition, DPDSA has acted as a statutory CA for health care since 1 December 2010 and as a statutory CA for social care since 1 April 2015 following the amendment of the act on the electronic processing of client data in social and health care (159/2007), the act on electronic prescriptions (61/2007) and the act on the population information system and the Digital and Population Data Services Agency's certificate services (304/2019). DPDSA's Certificate Service unit is responsible for the agency's certification activities.

Log data relating to certificate issuing and revocation will be retained for at least seven (7) years after certificate validity.

## 1.2 Identifiers

The title of this certificate policy is the Certification Policy for DPDSA's Temporary Certificate, OID 1.2.246.517.1.10.304 and 1.2.246.517.1.10.354.

This certificate policy refers to the root certificate authority's certificate practice statement, OID 1.2.246.517.1.10.301 and 1.2.246.517.1.10.351.

The CA adheres to a certificate policy concerning signature certificates issued to the public as per trust services under Regulation No. (EU) 910/2014. The document reference as per ETSI EN 319 411-1 [2], QSCD is: OID: 0.4.0.194112.1.2. Signature certificates issued in accordance with this certificate policy can be used to authenticate digital signatures that correspond to approved certificates and creation devices for digital signatures as referred to in the Regulation and provided for in Articles 28 and 29 of the Regulation.

The level of the identification certificate meets the requirements of High level of assurance in accordance with the Regulation and the regulation on levels of assurance.

The certificate policy and the certification practice statement are available at <https://dvv.fi/en/certificate-policy>.

## 1.3 Certification Authority and applications of certificates

The CA provides certificate services according to the terms and conditions specified in this certificate policy and guarantees their functioning to the certificate holder in accordance with Chapter 2.2.1 on the responsibilities of the CA. The CA is responsible for the functioning of the certificate system as a whole, including on behalf of any registration authorities and technical suppliers it may use. This certificate policy has been registered by the CA. It is a government authority that maintains a personal data register and is responsible, under the Act on the Population Information System and the Certificate Services of the Digital and Population Data Service Agency (304/2019), the act on the electronic processing of client data in social and health care (159/2007) and the act on electronic prescriptions (61/2007), for providing certified electronic services. The DPDSA Certificate Service is comprised of the following functions.



### 1.3.1 Certification Authority

The CA's task is to:

- provide certificate and directory services in accordance with its certificate policy and certification practice statement, and certification revocation services
- identify certificate applicants
- ensure the accuracy of the data content of certificates
- revoke certificates and publish certificate revocation lists
- adhere to high data security standards and good data processing practices when processing the personal information of certificate holders
- create client IDs for the purpose of personal identification
- provide a card order and management system for registration and revocation purposes.

### 1.3.2 Registration authority

Temporary certificates are registered in accordance with the Act on Strong Electronic Identification and Trust Services and the practices described in the certification practice statement document. The organization's temporary certificates located on replacement cards are registered by DPDSA's partner with whom DPDSA has concluded a registration agreement. A more detailed procedure is described in the certificate practice statement that describes the technical platform in question.

- The registration authority acts on behalf of and at the responsibility of the CA.
- The registration authority shall comply with the CA's certificate policy and certification practice statement.
- The registration authority identifies certificate applicants in accordance with the certification practice statement.
- Certificates are created based on personal identification details related to the certificate application, which are provided by the registration point.
- The registration authority adheres to the principles of good personal data processing.
- The CA oversees that the client organization adheres to the terms and conditions of the registration agreement and the relevant provisions of the Act on Strong Electronic Identification and Trust Services.
- The registration authority uses the order and management system provided by the CA to conduct registrations and to order replacement cards and revoke temporary certificates.

### 1.3.3 Manufacturer and identifier of the replacement card or microchip

- With regard to certificates, the associated key pairs and activation data, the manufacturer and identifier act on behalf of the CA, at its responsibility and in accordance with the agreement.
- The manufacturer and identifier shall comply with the CA's certificate policy and certification practice statement.
- Replacement cards and microchips are uniquely identified in accordance with data provided by the registration authority.



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### 1.3.4 Revocation service

The certificate revocation service which is in place for other cards does not apply to replacement cards; instead, they are revoked by the registration authority of the certificate holder organization in the card order and management system. A certificate is revoked when the certificate holder wishes to revoke it before its stipulated expiry date. Revoked certificates are added to the revocation list.

### 1.3.5 Publishing the data of a temporary certificate

The directory service is a public Internet-based service which can be used to retrieve the CA's certificates and revocation list. Temporary certificates are not published in the directory. The directory service is available at `ldap://ldap.fineid.fi`.

### 1.3.6 Certificate holder

Temporary certificates under this certificate policy can be issued to persons identified in accordance with the Act on Strong Electronic Identification and Trust Services or, in the case of non-regulated social and healthcare workers or non-clinical social and healthcare staff, they can additionally be assigned in accordance with the act on the electronic processing of client data in social and health care (159/2007) and the act on electronic prescriptions (61/2007) and associated regulations and requirements. Holders of a temporary certificate for non-regulated social and healthcare workers and non-clinical social and healthcare staff can only be issued to these two groups.

The certificate holder must comply with the CA's certificate policy and certification practice statement.

### 1.3.7 The trusting party

The trusting party is a natural person or an organization that trusts the certificate information and uses the certificate for authentication and encryption or electronic signing. The trusting party must verify with the revocation list or OCSP service that the certificate is valid and not on a revocation list.

### 1.3.8 Certificate usage

The CA adheres to this certificate policy when issuing temporary certificates. Certificate holders and trusting parties must comply with this certificate policy.

Temporary certificates issued under this certificate policy can be used for personal authentication and encryption or electronic signing. The certificate can be used without limitation according to its purpose in administrative applications and services and those provided by private organizations.

The certificate policy and certification practice statement contain requirements concerning the obligations of the CA, registration authority, certificate holder and trusting party as well as matters related to legislation and dispute resolution.

## 1.4 Contact details

### 1.4.1 Organization administering the certificate policy

This certificate policy has been registered by the Digital and Population Data Services Agency, a public authority which administers a personal information register and, under the Act on the Population Information System and the Certificate Services of the Digital and Population Data Service



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Agency (304/2019), is responsible for providing certified electronic services in addition to its other tasks. DPDSA is responsible for the administration and updating of this certificate policy.

Copyright under this certificate policy belongs to DPDSA.

### 1.4.2 Contact person

Questions regarding this certificate policy should be addressed to:

#### Digital and Population Data Services Agency

P.O. Box 123 (Lintulahdenkuja 2) Tel. +358 295 535 001

00531 Helsinki [kirjaamo@dvv.fi](mailto:kirjaamo@dvv.fi)

Business ID: 0245437-2

#### Digital and Population Data Services Agency (DPDSA) Certificate Services

P.O. Box 123

FI-00531 Helsinki

[www.dvv.fi/en](http://www.dvv.fi/en)

Questions related to the certificate policy are answered by the Registry of the Digital and Population Data Services Agency, [kirjaamo@dvv.fi](mailto:kirjaamo@dvv.fi).

## 2 General terms and conditions

This certificate policy takes effect at the time stated on the cover page. The amendment and publication procedure of this policy is described in section 8 of this document.

### 2.1 Obligations

#### 2.1.1 Certification authority's obligations

- The DPDSA is a statutory CA.
- The client organization is for its part responsible for revoking certificates in accordance with the agreement made between DPDSA and the client organization.
- The client organization shall verify the accuracy of information about end users in accordance with the agreement made between DPDSA and the client organization.
- The CA shall act in accordance with current legislation.
- The CA shall perform its duties duly and reliably.
- The CA has the necessary technical ability, financial resources, and ability to cover its liability for damages.
- The CA is responsible for all areas of the certification activity, including the reliability and functioning of services and products produced by any technical suppliers or persons who assist the CA, such as registration authorities and card manufacturers.
- The CA draws up and maintains a certificate policy which describes at a general level the procedures for the issuance, maintenance and management of temporary certificates, the





terms and conditions, the allocation of responsibilities, and other matters related to the use of temporary certificates.

- The CA draws up and maintains certification practice statements which describe how the CA applies its certificate policy.
- The CA complies with its certificate policy and certification practice statement.
- The CA makes the certificate policy and the certification practice statement publicly available.
- The CA shall employ a sufficient number of staff with the expertise, experience and competence required for producing certificate services.
- The CA shall use reliable systems and products protected against unauthorized use.
- The CA shall keep information regarding the certificate and certificate activities publicly available, based on which the operations and reliability of the CA can be assessed.
- It is possible that the CA issues a certificate for its own purposes. In that case it follows the same requirements than issuing certificates for other organizations.

### **2.1.2 The registration authority's obligations**

- The registration authority shall comply with the certificate policy and the certification practice statement in its registration activities.
- The registration authority identifies the certificate applicant personally and reliably in a way described in the certification practice statement and so that the applicant's identity and other information pertaining to the applicant's person needed in the granting of the certificate will carefully be inspected.
- The registration authority shall see to the careful handling and confidentiality of personal data.
- The registration authority shall provide the certificate applicant with data of the terms of use of the certificate.
- The registration authority shall adhere to registration procedures agreed upon with the certificate authority.

### **2.1.3 Certificate holder's obligations**

- The purpose of the certificate is specified in the certificate policy and certification practice statement of each certificate type and in the certificate holder's instructions. Certificates may only be used in conformance with their intended use for authentication or data encryption or digital signature.
- The holder of a temporary certificate shall see to it that the data stated when applying for temporary certificates are correct.
- The holder of a temporary certificate is responsible for the use of the temporary certificate, legal actions taken with the temporary certificate and their financial consequences.
- The holder of a temporary certificate shall store its private key contained on a microchip and the PIN code required for using it separately from each other and aim to prevent the loss, access by third parties, alteration, or unauthorized use of the private key. Transferring the microchip or disclosing the PIN code to a third party, for example by lending, releases



the certificate authority and the party trusting the temporary certificate from any liability arising out of the use of the microchip.

- The temporary certificate shall be managed and protected with the same care as other corresponding microchips, cards, or documents, such as credit cards, identity card or passport. Personal PIN codes must be stored physically in a different location than the microchip containing the temporary certificate and private key.
- The loss or potential misuse of the microchip must be reported without delay to the registration authority of the certificate holder's organization, who will close the certificate in the order and administration system.

#### **2.1.4 Obligations of the party trusting a temporary certificate**

It is the obligation of the party trusting a certificate to ensure that the certificate is used according to its intended use. The intended use of an authentication and encryption certificate is the authentication of a person and encryption of data. The intended use of a signature certificate is electronic signing. A party trusting the certificate must adhere to the certificate policy and certification practice statement. A party trusting a temporary certificate may bona fide trust a temporary certificate after verifying that the certification chain is intact, the temporary certificate is valid and is not contained on a revocation list. A party trusting a temporary certificate shall check the certificates on the revocation list. In order to ensure the validity of a temporary certificate, a party trusting a temporary certificate must conform to the below revocation list checks or retrieve the status information from the OCSP service.

If a party trusting a temporary certificate copies the revocation list from a directory, it must verify the genuineness of the revocation list by checking the digital signature of the revocation list's CA. In addition, the validity period of the revocation list must be checked.

If the most recent revocation list cannot be obtained from the directory because of hardware or directory service malfunction, the temporary certificate must not be accepted if the validity period of the last obtained revocation list has expired. All approvals of a temporary certificate after the validity period take place at the risk of the party trusting the temporary certificate.

#### **2.1.5 Obligations pertaining to the publishing of a temporary certificate**

Closed temporary certificates are published on a revocation list where a party trusting the certificate must check the certificate's validity. Temporary certificates are not published in the directory.

## **2.2 Liabilities**

### **2.2.1 Certification authority's liabilities**

The CA is liable for the safety of the entire certificate system. The CA is liable for services it has commissioned as if for its own.

The CA is responsible for the temporary certificate having been created in accordance with the procedures described in the Act on Strong Electronic Identification and Trust Services, the certificate policy and the certification practice statement and according to the data provided by the certificate applicant, and for the temporary certificate meeting the CA's liability for damages prescribed by law or, in case of a temporary certificate created for non-regulated healthcare workers or non-clinical healthcare sector staff, in addition to the above also adhering to the regulations set forth in the act on the electronic processing of client data in social and health care (159/2007) and the act



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on electronic prescriptions (61/2007) and to requirements set on the basis of the above. The CA is liable only for the data it has stored in the certificate.

The CA is liable for the usability of the temporary certificate, when used appropriately, throughout its validity period, unless it has been placed on a revocation list. The temporary certificate has been given to a person identified in a manner required for temporary certificates. The certificate holder has been given instructions pertaining to the use of the temporary certificate prior to the signing of the agreement.

When signing a temporary certificate with its private key, the CA assures it has checked the personal data in the temporary certificate according to the policies described in the certificate policy and the certification practice statement.

The CA is liable for the certificates revoked by the certificate holder's organization being included in the revocation list within the time specified in this certificate policy.

### **2.2.2 Registration authority's liabilities**

The registration authority of a temporary certificate is a registration point that registers the certificate applicant for the CA on the basis of an agreement concluded for this purpose. The registration authority is liable for the registration it has conducted and for revoking the certificate. With respect to registration, the requirements described in the Act on Strong Electronic Identification and Trust Services and the certification practice statement or, in case of a temporary certificate created for non-regulated healthcare workers or non-clinical healthcare sector staff, in addition to the above the regulations set forth in the act on the electronic processing of client data in social and health care (159/2007) and the act on electronic prescriptions (61/2007) and the requirements set on the basis of the above are also adhered to.

### **2.2.3 Certificate holder's liabilities**

The holder of a certificate is liable for the use of the temporary certificate, legal actions taken with it and their financial consequences.

Leaving a card containing a microchip in a reader may enable the abuse of the temporary certificate. When terminating a terminal session, it is the responsibility of the certificate holder to remove the microchip containing the temporary certificate from the reader device and close the applications used appropriately or otherwise closing the technical connection needed for the use of the certificate.

The certificate holder's liability for the use of the certificate ends when they have notified the registration authority of the certificate holder's organization on the need to revoke the certificate and upon receiving a notice of the receipt of the revocation request. In order to terminate liability, the revocation request must be made without delay upon noticing the reason for the request.

### **2.2.4 Liabilities of a party trusting a temporary certificate**

A party trusting a certificate may not bona fide trust the correctness of a temporary certificate if the validity of the temporary certificate has not been verified with the OCSP service or a revocation list. Accepting a temporary certificate in the above cases releases the CA of liability. A party trusting a temporary certificate shall verify that the certificate granted corresponds to its intended use in the legal action in which it is used.



## 2.2.5 Limitations of liability

The CA is bound by the regulations conformant to the Act on Strong Electronic Identification and Trust Services (617/2009) and, where applicable, to the Tort Liability Act (412/1974).

The CA is not liable for damage caused by the disclosure of a PIN code or a certificate holder's private key unless said disclosure is the direct result of the CA's direct actions.

The maximum extent of the CA's liability to the certificate holder and a party trusting the certificate is for direct damage incurred, in case the damage is the result of the CA's direct actions, however at most 15% of the amount of certificate invoicing for the client organization in question for the preceding 3 months (share payable to DPDSA).

The CA is not liable for indirect or consequential damage caused to the certificate holder. Neither is the CA liable for the indirect or consequential damage incurred by a party trusting a temporary certificate or by another contractual partner of the certificate holder.

The CA is not responsible for the operation of public telecommunication connections, such as the Internet, or for the inability to execute a legal transaction because of the non-functionality of a device or card reader software used by the certificate holder or for the use of a certificate in contradiction to its intended use.

The CA has the right to interrupt the service for changes or maintenance. Changes to or maintenance of the revocation list will be announced in advance.

The CA has the right to further develop the certificate service. A certificate holder or a party trusting a certificate must bear their own expenses thus incurred, and the CA is not liable to compensate the certificate holder or a party trusting the certificate for any expenses caused by the CA's development work.

The CA is not liable for errors in the online service or applications intended for end users and based on a certificate or any resulting expenses.

## 2.3 Financial liability

### 2.3.1 Certification authority

The CA is bound by the regulations conformant to the Act on Strong Electronic Identification and Trust Services (617/2009) and, where applicable, to the Tort Liability Act (412/1974).

The CA is liable at most for the direct damage incurred by a party trusting a certificate in accordance with the provisions of the section Limitations of Liability.

### 2.3.2 Other parties

A party trusting a temporary certificate may trust the correctness of a temporary certificate if it has verified that the certification chain is intact, the temporary certificate has not been included in a revocation list, the validity of the certificate has not expired, and the party has no other justifiable reason to doubt the correctness of the use of the certificate. Status information can also be verified with the OCSP service.

The CA is responsible for the temporary certificate in accordance with the CA's commitments in this certificate policy and the certification practice statement on temporary certificates.



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### 2.3.3 Certification authority's financial administration

The certificate services produced by the CA are covered by a financial administration system and supervision as has separately been set forth.

The CA's financial administration is described in detail in the certification practice statement.

## 2.4 Interpretation and implementation

### 2.4.1 Applicable legislation

The CA is bound by the regulations conformant to the Act on Strong Electronic Identification and Trust Services (617/2009) and, where applicable, to the Tort Liability Act (412/1974). In case of a temporary certificate created for non-regulated healthcare workers or non-clinical healthcare sector staff, in addition to the above the regulations set forth in the act on the electronic processing of client data in social and health care (159/2007) and the act on electronic prescriptions (61/2007) and the requirements set on the basis of the above are also adhered to.

The CA conforms to the principles of good personal data processing set forth in the Personal Data Act (523/1999) and to the good information management practices of the Act on the Openness of Government Activities (621/1999). The CA also secures information security with continuous training. The CA has also prepared policy rules for information services and certificate services.

The CA procures the duties pertaining to registration and personal identification under a separate, private-law contract pertaining to registration measures. The CA may obtain a service, for example, by adhering to the regulations set forth in the act on the government's joint services (223/2007).

The position of the CA is prescribed in the act on the Digital and Population Data Services Agency (304/2019).

The CA is responsible for the temporary certificates having been created in accordance with the procedures described in the Act on Strong Electronic Identification and Trust Services, the certificate policy and the certification practice statement and according to the data provided by the certificate applicant or, in case of a temporary certificate created for non-regulated healthcare workers or non-clinical healthcare sector staff, in addition to the above also adhering to the regulations set forth in the act on the electronic processing of client data in social and health care (159/2007) and the act on electronic prescriptions (61/2007) and to requirements set on the basis of the above.

The operations of the CA are supervised by Finnish Transport and Communications Agency (Trafi), a body conformant to the Act on Strong Electronic Identification and Trust Services, which provides the necessary regulations and recommendations for the operations.

With respect to the processing of personal data, the CA conforms to the Personal Data Act. The CA works in constant collaboration with the Office of the Data Protection Ombudsman with respect to the processing of personal data.

Applicable legislation is adhered to in settling appeals and disputes, in administrative supervision and implementation of law.

### 2.4.2 Settling of disputes

When granting certificates, the CA is responsible for the temporary certificate meeting the requirements set in this certificate policy for temporary certificates.

Applicable legislation is adhered to in settling appeals and disputes, in administrative supervision and implementation of law. When issuing a temporary certificate, the Act on Strong Electronic



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Identification and Trust Services and the supervision and appeals procedure described therein must, in particular, be considered.

When granting temporary certificates, the CA is responsible for the temporary certificate meeting the requirements in this certificate policy. Any disputes shall be settled according to Finnish law in the District Court of Helsinki.

## **2.5 Fees**

This section specifies the fees related to the use of a temporary certificate.

### **2.5.1 Granting and renewing a temporary certificate**

Temporary certificates are applied for according to the description of the certification practice statement.

The price of acquiring a backup card is determined according to the then-valid Decree of the Ministry of Finance on the payment of Digital and Population Data Services Agency fees.

Temporary certificates are priced according to the CA's price list pertaining to commercial services.

### **2.5.2 Fees related to the use of a temporary certificate**

The CA does not separately charge the certificate holder for the use of the certificates, the revocation service, or a public directory. Individual online service providers may charge for the use of their services. The use of a certificate does not require a specific announcement or permit from the CA.

### **2.5.3 Fees related to the revocation list entry of a temporary certificate**

Reporting a temporary certificate to a revocation list is free of charge. Also the retrieval of revocation lists from the directory and the checking of the validity of temporary certificates against the revocation list are free of charge.

### **2.5.4 Other fees**

The use of advisory services is subject to a separate fee according to the then-valid price list.

If the service provider wishes to arrange for information maintenance service between the unique identifier of the temporary certificates and the identifiers of its own background system or between other updated data, the service provider may apply for information disclosure permission in the information service from the CA. This service will be priced according to the then-valid Act on Criteria for Charges Payable to the State and the Decree of the Ministry of Finance on the payment of Digital and Population Data Services Agency fees.

The terms of use of a temporary certificate are given to the holder of the temporary certificate when receiving the temporary certificate.

## **2.6 Publishing and availability of data**

### **2.6.1 Publishing of the Certification Authority's data**

The CA publishes the CA's certificates and revocation lists in a non-chargeable, publicly available, public directory. The created temporary certificates are not published. The CA publishes the certificate policy, the certification practice statements, the PKI disclosure statement (PDS) and other public documents pertaining to the production of certificate services on its website.



## 2.6.2 Publication frequency

The CA publishes a revocation list that is valid for eight hours from its publication. This revocation list is updated once per hour with a new one.

## 2.6.3 Availability of data

Directory and revocation list data are publicly available. The FINEID specifications published by the CA are available on the CA's website. In addition, the certificate policies and certification practice statements are available on the CA's website.

## 2.6.4 Repositories

The data published by the CA are available on the CA's website and, in conformance with this certificate policy, in a public directory. The certificate system's confidential data are stored in the CA's own, confidential repository. The CA's data are archived according to the valid archiving rules. Particular attention is paid to the processing of personal data. The CA has published specific policy rules conformant to the Personal Data Act on the production of certificate services. The CA has also prepared the certificate system's register description conformant to the Personal Data Act with respect to the processing of personal data.

## 2.7 Information security audit

Finnish Transport and Communications Agency (Traficom), which supervises the providers of identification services, may audit the operation of an identification service provider under the prerequisites set forth in the Act on Strong Electronic Identification and Trust Services.

### 2.7.1 Audit frequency

The CA audits the facilities, devices, and operations of its technical suppliers in an appropriate fashion.

The detailed audit method is described in the certification practice statement.

### 2.7.2 Auditor

The CA's information security audit is conducted by the CA's Head of Information Management, or an external auditor specialized in auditing technical vendors pertaining to certificate services.

### 2.7.3 Audit objects and scope

The objects of the audit are determined by the Act on Strong Electronic Identification and Trust Services or, if the CA is conducting the audit, the information security standard ISO/IEC 27001, the CA's information security policy or the technical terms of delivery.

The audit is conducted considering the implementation of the eight areas of information security. Audited information security properties include confidentiality, integrity, and availability.

The audit compares the policy, certification practice statement and application instructions to the operation of the entire certificate organization and system. The CA ensures that the application instructions are consistent with the certificate policy.

The audits will consider administrative information security and also service providers.



Observed deviations are recorded in the audit report and reacted to in accordance with legislation, the information security standard ISO/IEC 27001 and the valid terms of delivery.

#### **2.7.4 Communicating the result of an audit**

The results of an audit are communicated according to the law, the information security standard ISO/IEC 27001, the CA's information security policy and the valid terms of delivery. A detailed, fixed-form audit result intended for internal use is confidential and will not be disclosed to the public. Fixed-form reports are prepared separately for use outside of the organization.

The CA communicates the results of audits to Finnish Transport and Communications Agency (Traficom) among others.

### **2.8 Publication of data**

#### **2.8.1 Data published by the Certification Authority**

The data in the certificate system is confidential unless they are based on the regulations on information disclosure set forth in the Personal Data Act, the Act on the Openness of Government Activities, the Act on Strong Electronic Identification and Trust Services or for purposes set forth in the certificate policy or certification practice statement.

#### **2.8.2 Public data**

The data of the public directory and the revocation list are public, as are the certification practice statements and the data specified in the certificate policy and the published FINEID specifications.

#### **2.8.3 Data pertaining to the expiry or revocation of a temporary certificate**

The time of validity start, and the end of a temporary certificate are contained in the temporary certificate. Certificates revoked during their validity period are published on a revocation list available to all.

#### **2.8.4 Data disclosed to authorities**

The data disclosed to authorities is specified according to the valid legislation.

#### **2.8.5 Other data**

The data of the certificate system is not disclosed for purposes other than those listed above in this section.

#### **2.8.6 Disclosure of data on the request of the certificate holder**

The holder of a certificate has the right to receive information pertaining to him/her, for example personal data, in accordance with the applicable legislation.

#### **2.8.7 Other principles concerning disclosure of information**

It is material for the reliability of the CA that the CA shall take all measures to see to the secrecy of confidential material it obtains in connection with the certificate activities and to the good administration of data unless otherwise required by legislation pertaining to the right of authorities to obtain information on the operation of the certificate system.





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The CA conforms to the Personal Data Act and specific legislation in the processing of personal data. The CA has prepared the policy rules for the processing of personal data in connection with information disclosure and with the certificate activities. Special care must be taken when processing personal data.

## **2.9 Intellectual property rights**

The CA owns all data pertaining to the certificates and documentation in accordance with the technical terms of delivery. The CA has full ownership and utilization rights to this temporary certificate policy.

## **3 Identification of certificate applicant**

### **3.1 Registration**

Sections 4.1–4.3 present the procedures and processes that are adhered to in the identification and authentication of certificate holders.

The application document clearly states that the applicant for a temporary certificate confirms the correctness of the information provided with his/her signature and approves the creation of the temporary certificate. At the same time, the applicant accepts the rules and terms pertaining to the use of temporary certificates and sees to the storage of temporary certificates and PIN codes and the reporting of any misuse or lost card.

Agreements have been concluded between the CA, registration authority and other vendors that produce parts of the certificate services, indisputably specifying the rights, liabilities, and obligations of all parties. The applicant of temporary certificates is responsible for the correctness of all material data that the applicant of a temporary certificate has given the CA or registration authority. The holder of temporary certificates must use the temporary certificates only for their intended use.

When the CA grants a temporary certificate, it also approves the application for certificate.

It is the responsibility of the holder of temporary certificates to prevent the use of private keys and the related PIN codes belonging to him/her in a way contradictory to the terms of use and to take care of them as set forth in the terms of use.

The certificate holder must report without delay the need to revoke a temporary certificate to the registration authority of the certificate holder's organization if he/she suspects the possibility of use in contradiction to the terms of contract.

#### **3.1.1 Naming policies**

The naming policies are described in detail in the certification practice statement.

The CA's public key is part of the CA's certificate. The CA's certificate is available in a public directory. If a temporary certificate is located on a backup card, the CA's certificate is also placed on the microchip of the backup card.

Data pertaining to the certificate holder unambiguously identify the certificate holder. The CA will determine the official identity of the certificate holder, if necessary.

#### **3.1.2 Delivery of private keys to the certificate holder**

A private key pertaining to a temporary certificate, created on a microchip or other secure environment, is delivered to the certificate holder in connection with delivery.



A detailed description of the delivery of the private key is described in the certification practice statement.

### **3.2 Renewal of key pair**

The public keys in the temporary certificates and the private keys in the microchip cannot be renewed. The creation of a new key pair requires a new temporary certificate.

The renewal of the temporary certificate adheres to the same procedures as when applying for the certificate for the first time.

### **3.3 Renewing a key pair after inclusion on revocation list**

The public keys in the temporary certificates and the private keys in the microchip cannot be renewed. The creation of a new key pair requires a new temporary certificate.

The renewal of the temporary certificate adheres to the same procedures as when applying for the certificate for the first time.

### **3.4 Identification of the requester of revocation**

The holder of a temporary certificate may have the certificate revoked before the expiration of the temporary certificate's validity period.

The registration authority of the certificate holder's organization conducts the revoking of the certificate upon detecting that the certificate has become misplaced or the possibility of its misuse.

The certificate must be revoked without delay when suspecting the misuse of a certificate, for example because of loss or theft.

All electronic transactions related to the revoking are archived. The revocation of a certificate is described in detail in the certification practice statement.

## **4 Operational requirements**

### **4.1 Applying for a certificate**

The rights and obligations of a certificate applicant are specified in contract documents and general instructions for use, which comprise an agreement concluded with the certificate applicant. The application document contains the details of the rights and obligations of both parties. When an applicant for a temporary certificate applies for a temporary certificate, he/she also accepts the general terms of use.

The application document and instructions for use clearly state that the applicant for temporary certificate, with his/her signature, approves the correctness of the information provided and the creation of the certificate. At the same time, the applicant accepts the rules and terms pertaining to the use of temporary certificate and sees to the storage of temporary certificates and PIN codes and the reporting of any misuse or lost certificates/microchip.

### **4.2 Granting of a certificate**

The CA grants a temporary certificate upon accepting the application for certificate. When granting a temporary certificate, the CA is responsible for its data content being correct at the time of delivery of the certificate.



### 4.3 Receiving a certificate

Temporary certificates are retrieved personally at a point of registration.

At the time of handing out the certificate, it is emphasized to the certificate applicant that there are no copies of the private keys, and no copies can be made later.

### 4.4 Termination and interruption of the validity of a certificate

#### 4.4.1 Prerequisites for revoking a certificate

A temporary certificate must be included in a revocation list when there is reason to suspect misuse, for example because of loss or theft.

#### 4.4.2 Requester of revocation

The revoking of the certificate is done by the registration authority in the certificate holder's organization.

#### 4.4.3 Revocation transaction

The revocation of a certificate can be done through the card ordering and administration system offered by the CA.

Information of the inclusion of a certificate on a revocation list will be publicly available within an hour of the revocation request having been deemed valid and approved. The revocation list is valid for eight hours.

The revoking of a certificate and its effects are described in detail in the certification practice statement.

#### 4.4.4 Closing certificates at the request of the Certification Authority

The CA does not conduct certificate revocation in any cases except the following:

- The CA may revoke certificates signed with its private key if there is reason to believe that the CA's private keys have become disclosed or accessed by unauthorized parties.
- All certificates that are valid and have been granted with the exposed key must be closed with one or several revocation lists whose validity period does not expire until the validity of the last revoked certificate has expired.
- If the private key used by the CA in certificate creation or another technical method has become exposed or otherwise unusable, the CA must notify all cardholders of the event.
- The CA may also revoke a certificate for other special reasons.

#### 4.4.5 Timing of a revocation event

Certificates are revoked without delay in connection with a revocation request. Revoked temporary certificates cannot be reinstated.

#### 4.4.6 Requirements for terminating the validity of a certificate

The validity of temporary certificates cannot be interrupted temporarily.



#### **4.4.7 Creator of revocation request**

The validity of temporary certificates cannot be interrupted temporarily.

#### **4.4.8 Making a revocation request**

The validity of temporary certificates cannot be interrupted temporarily.

#### **4.4.9 Limitations of the revocation period**

The validity of temporary certificates cannot be interrupted temporarily.

#### **4.4.10 Publishing frequency of the revocation list**

Information of the inclusion of a certificate on a revocation list will be publicly available within an hour of the revocation request having been deemed valid and approved. Revocation lists are valid for eight hours.

The revocation list contains the time of publication of the next revocation list.

The new revocation list will be published by the expiration of the validity of the valid revocation list.

In case of system updates and other exceptional situations, the CA may publish revocation lists at a different frequency and extended validity periods.

#### **4.4.11 Revocation list requirements**

The obligations of a party trusting the certificate are described in section 2.1.4.

#### **4.4.12 Online certificate status check**

The CA provides an online certificate status check service that implements OCSP. The CA publishes a revocation list of revoked certificates.

#### **4.4.13 Requirements related to online certificate status check**

The CA provides an online certificate status check service.

#### **4.4.14 Special requirements pertaining to the exposure of the certificate holder's private key**

It is the certificate holder's responsibility to protect the use of their private key by taking care of their microchip or card and PIN code as described in the instructions for use. The certificate holder must report without delay the need to revoke a temporary certificate to the registration authority of the certificate holder's organization if he/she suspects the possibility of use in contradiction to the terms of contract.

### **4.5 System supervision**

The supervision of the system is described in the certification practice statement.



## 4.6 Archiving of data pertaining to certificates

### 4.6.1 Material stored

The provisions of the Archive Act (831/1994) are applied as the general law for archiving. The right to obtain information is determined according to the Act on the Openness of Government Activities (621/1999). With respect to the archiving of certificates, the provisions pertaining to archiving in electronic services legislation are also applied. The data of the certificate register are stored for at least 5 years from the expiration of the certificates or, in case of a temporary certificate created for non-regulated healthcare workers or non-clinical healthcare sector staff, in addition to the above the regulations set forth in the act on the electronic processing of client data in social and health care (159/2007) and the act on electronic prescriptions (61/2007) and the requirements set on the basis of the above are also adhered to.

The data archived by the CA are described in detail in the certification practice statement. The archive data are stored in accordance with regulations pertaining to authorities.

### 4.6.2 Protection of archives

Archived data are stored on high-security premises with access control.

### 4.6.3 Backup methods for archived data

Backups are stored in a place physically separate from the original data.

### 4.6.4 Acquisition and backup methods for archived data

The CA ensures the availability and readability of the archives even in the event that the CA's operations are interrupted or terminated.

## 4.7 Management of the continuity of operations and handling of deviations

The CA has a continuity and preparedness plan that enables the continuity of the operations of the CA.

The preparation for deviations is described in the certification practice statement.

### 4.7.1 The Certification Authority's private key has become disclosed, or the Certification Authority's certificate has been revoked

In each certification practice statement, the CA states the measures that the certificate holders, parties trusting the certificate and registration authorities and the CA's staff must take if the CA's private key has become disclosed or otherwise unusable.

### 4.7.2 Compromised security because of a natural disaster or other catastrophe

The CA's security policy considers the measures necessitated by the compromising of external security. The CA is ISO/IEC 27001 certified with respect to information security, setting the requirements for the CA's operations also after the occurrence of a catastrophe.



## 4.8 End of the Certification Authority's operations

The termination of the CA is considered to be a situation where all services related to the granting of the CA's certificate are permanently terminated. The termination of the CA does not refer to a situation where the certification service is transferred from one organization to another.

The CA communicates the termination of the certificate services to the parties specified in section 4.7.1 without delay, however at least one month before the time of termination.

Before the termination of the CA, at least the following measures will be taken:

- All certificates that are valid and have been granted are closed on one or several revocation lists whose validity period does not expire until the validity of the last revoked certificate has expired.
- The CA will revoke all authorizations of its contractual partners to conduct tasks pertaining to the granting process of certificates on behalf of the CA.
- The CA ensures that access to the CA's archives as set forth in section 4.6 will be maintained also after the termination of the CA.
- The CA sees to the archiving of data conformant to the Act on Strong Electronic Identification and Trust Services and otherwise adheres to the regulations of the Archive Act with respect to the archiving of data or, in case of a temporary certificate created for non-regulated healthcare workers or non-clinical healthcare sector staff, in addition to the above the regulations set forth in the act on the electronic processing of client data in social and health care (159/2007) and the act on electronic prescriptions (61/2007) and the requirements set on the basis of the above are also adhered to.

## 5 Physical, operational and staff security requirements

An information security certificate has been granted to the CA, affirming that the CA's information security meets the requirements of the ISO/IEC 27001 standard.

### 5.1 Arrangements related to physical security

An information security certificate has been granted to the CA, affirming that the CA's information security meets the requirements of the ISO/IEC 27001:1999 standard. The CA uses technical vendors for conducting the information technology tasks of the certificate service. The CA is responsible for the safety and operation of certificate production in an appropriate way in all of its sub-areas.

A detailed description of security-related arrangements is contained in the certification practice statement.

#### 5.1.1 Location and building properties

The CA's systems are located in high-security data centers and meet the instructions and orders imposed on data centers regarding security.

Facility safety has been implemented in such a way that access to the facilities by unauthorized parties is prevented.



### 5.1.2 Physical access to facility

Facilities where production duties for the certificate system are conducted have controlled physical access. The access control system detects authorized and unauthorized entry. Access to data center facilities requires the identification of the person, whereby the person is identified, and the access right is verified, and the transactions are registered. Data center facilities are guarded at all times of the day.

### 5.1.3 Auxiliary arrangements

The hardware solutions have been implemented in accordance with good information administration practice in such a way that in the event of system failure, a backup system can be used without compromising the confidentiality, integrity or availability of the data contained in the system.

The supply and maintenance of spare parts for important devices has been ensured.

## 5.2 Operational requirements

### 5.2.1 Division of responsibility

The CA uses technical vendors for the registration and information technology duties of certificate production. The CA serves is responsible for certificate activities.

The duties of the CA are divided into areas of responsibility by duty, described in detail in the certification practice statement.

### 5.2.2 Number of staff required for the duties

The creation, activation, backup, and recovery of the CA's private key are conducted under supervision when two persons authorized to conduct maintenance on the system are present.

The revocation of the CA's private key is possible only under the supervision of two authorized persons.

At least two persons authorized to conduct maintenance on the system are present when the CA's private key's hardware security module is initialized.

The use of the system requires the presence of at least one person authorized to do so.

The registration and identification of a temporary certificate requires the presence of one person.

### 5.2.3 Task-specific identification

The identification of the registration authority, certificate system administrator and certificate system user and task descriptions are described in detail in the certification practice statement.

## 5.3 Personal security

The CA is responsible for certificate activities. The technical vendors have been selected through competition and work at the responsibility and on behalf of the CA.

The CA pays particular attention to the reliability of both its own staff and the technical vendors and registration authorities and to their skills needed for the execution of the tasks.



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### **5.3.1 Conducting a background check on the staff**

The CA has a basic security clearance done for its staff and the persons of the technical vendors who work with the certificate information system.

### **5.3.2 Procedure adhered to in the security clearance**

The staff's work experience is surveyed when starting the employment. A security clearance is conducted for the person based on the information he/she has provided on a fixed-form form.

The security clearance procedure is described in detail in the certification practice statement.

### **5.3.3 Requirements on training**

The CA's staff must be trained so that duties can be conducted in the best possible way. The CA has a training plan the implementation of which is the responsibility of the CA.

### **5.3.4 Maintenance of expertise and skills**

Staff training is planned and maintained in such a way that the expertise related to the management of the task is always at the best possible level required by the task.

### **5.3.5 Requirements for task rotation**

When task rotation is planned for the CA's tasks, they are organized in such a way that the person can see to his/her new duties in the best possible way. The implementation of task rotation must also consider the retention of good information administration practice and the maintenance of sufficient task-specific skill levels.

Task rotation also adheres to the CA's information security policy and information security plan as well as the CA's other general instructions.

### **5.3.6 Measures resulting from deviations**

The CA's staff work subject to official liability and in accordance with the internal instructions. The position of a public official is set forth in the State Officials Act (750/1994).

### **5.3.7 Staff representing the organization**

When recruiting staff, it must be seen to that the staff's skills correspond to the requirements of the task and that there is nothing detected in the person's background check that would put the person's interests at odds with the production of certificate services.

### **5.3.8 Documents given to the staff**

The staff always has access to the CA's quality and security documents.





## 6 Technical security arrangements

### 6.1 Generation and storage of key pairs

#### 6.1.1 Generating key pairs

##### **Certification authority:**

The CA generates its private signature keys and the public keys corresponding to the private signature keys. The CA's private key is stored in a hardware security module.

##### **Certificate holder:**

A certificate holder's key pair is generated in a safe way. The public key is used for creating the certificate, and the private key is stored on a microchip protected against reading and writing.

#### 6.1.2 Delivery of a private key to certificate holder

The end user of the temporary certificate will generate the PIN-codes when the temporary certificate is issued at the registration point. When generating the PIN-codes, it must be ensured that the generated PIN-codes do not become known to the registration authority.

#### 6.1.3 Delivery of the certificate holder's public key to the Certification Authority

Using the microchip's public keys, a certificate generation request is created, combining the certificate applicant's registration data with the public key in question. This generates a temporary certificate for the certificate holder.

The temporary certificate contains the public key of the certificate holder.

#### 6.1.4 Distribution of the Certification Authority's public key to the certificate holder

The CA's certificate contains the CA's public key. The CA's certificate is stored in a public directory. The CA's certificate is also available in the CA's public directory and the CA's website.

#### 6.1.5 Key lengths

The CA's private key and the public key corresponding to the private key, used in the signing of the temporary certificate, are at least 4096-bit RSA keys and at least 384-bit ECC keys.

The certificate holder's private and public keys are at minimum 2048-bit RSA keys or at minimum 384-bit ECC keys.

#### 6.1.6 Intended use of keys

The data content of the certificate has a field that determines the intended use, determining the intended use of the related key (e.g., authentication and encryption). The use of the key is restricted to its intended use. A key intended for authentication and data encryption must be used only for this purpose and a key intended for signing only for digital signing.

##### **CA certificate:**

Purpose: Signing of certificates and revocation lists.

Technical description in FINEID S2 specifications.

**Certificate holder's authentication and encryption certificate:**

Purpose: Electronic identification or data encryption.

**Certificate holder's signature certificate:**

Purpose: Digital signature.

## 6.2 Protection of private key

### 6.2.1 Standards for the hardware security module

The CA's private keys are stored in hardware security modules administered by the CA, meeting the requirements of the necessary security standard.

The CA sees to it that the CA's private keys are protected against disclosure and unauthorized use. A backup is made of the CA's private keys in a manner conformant with critical information security.

### 6.2.2 Staff participating in the handling of the Certification Authority's private key

The environment required for the generation and use of the private key requires the simultaneous presence of or activation of operation by at least two persons.

### 6.2.3 Disclosure of private key to a trusted party

The certificate holders' private key is generated in a safe way required for the certificate. Key pairs generated by the certificate holder are not accepted. A private key cannot be transferred or copied from a backup card. The CA and the card manufacturer do not have access to the private keys of the persons they certify.

When the keys are generated, they have not been allocated to any person.

### 6.2.4 Backup of a private key

The CA's private keys and their backups are stored with strong encryption in devices that meet the requirements of critical information security.

### 6.2.5 Archiving of private keys

The CA's private keys are stored in hardware security modules administered by the CA.

### 6.2.6 Administration of private keys in hardware security modules

The CA's private signature keys are protected with physical and logical security measures of high reliability. They are used only in a system placed in a secure environment.

The administration of the private key is described in detail in the certification practice statement.

## 6.3 Other topics related to key management

### 6.3.1 Public key archiving

The CA archives all public keys it has certified.



### **6.3.2 Usage period of public and private keys**

The usage period of a temporary certificate is as agreed, however at most three (3) months. The certificate can be revoked during its validity.

## **6.4 Activation data**

### **6.4.1 Creation and commissioning of activation data**

The end user of the temporary certificate will generate the PIN-codes when the temporary certificate is issued at the registration point.

The detailed method is described in the certification practice statement.

### **6.4.2 Protection of activation data**

The PIN code is protected so that it cannot be read or copied from the card. It is the certificate holder's responsibility to protect the use of his/her keys by taking care of his/her microchip or card and PIN code as described in the instructions for use.

### **6.4.3 Other topics related to key management activation data**

It is explained to the holder of a temporary certificate that he/she has the possibility to change the original PIN code to a new one. The program for changing the PIN code is available free of charge for the cardholders at <https://dvv.fi/en/>.

The detailed method is described in the certification practice statement.

## **6.5 Security requirements pertaining to the use of and access to computers**

### **6.5.1 Hardware security**

Only equipment suitable for their intended use is used in the certificate system.

The detailed method is described in the certification practice statement.

## **6.6 Certificate system life cycle management**

The CA maintains a classification of importance on certificate service objects and systems, their backups, priorities, and minimum maintenance levels.

### **6.6.1 Supervision related to developing the system**

The development and testing of the system are done in a separate test environment. Only evaluated, functional and approved solutions are transferred to the production system.

### **6.6.2 Security management**

The CA's information security is managed according to the CA's information security policy and the standard ISO/IEC 27001.



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## 6.7 Telecommunication network security

The security of telecommunication is implemented in such a way that the certificate system's telecommunication network is a consistent whole isolated from other telecommunication networks and has doubled critical components.

A more detailed description of the telecommunication network's security is contained in the certification practice statement.

## 6.8 Monitoring of the use of the hardware security module

The CA sees to it that the CA's private keys are protected against disclosure and unauthorized use. A backup is made of the CA's private keys in a manner conformant with critical information security.

The detailed method is described in the certification practice statement.

## 7 Certificate and revocation list profiles

### 7.1 Technical certificate data

The data content of the root certificate, CA certificate and certificate holder's certificates are described in the document FINEID S2. The document is available at the CA's website at <https://dvv.fi/en/>.

### 7.2 Revocation list profile

The data content of the revocation lists published by the CA is described in the document FINEID S2. The document is available at the CA's website at <https://dvv.fi/en/>.

## 8 Specification document management

### 8.1 Changing of specifications

The CA may change the specifications because of legislation or functional requirements. Changes to the specifications must be recorded in the certificate policy and certification practice statement documents as described below.

### 8.2 Publishing and communication

The CA publishes a certificate policy and a certification practice statement, available at the website <https://dvv.fi/en/certificate-policy>.

The CA's public specifications pertaining to the production of certificates can be obtained from the same websites.

Agreements concluded with information technology vendors on the delivery of certificates and production system descriptions and product-related specifications are confidential.



### **8.3 Certificate policy change and approval procedure**

The CA approves the certificate policy and certification practice statement pertaining to temporary certificates. The documents may be amended according to the CA's internal change policy.

The CA will communicate the changes well in advance of their entry into force on its website.

The CA maintains version management of the documents and archives all certificate policy and certification practice statement documents. Typographic corrections and changes of contact details are possible with immediate effect.

1. All sections of the certificate policy and certification practice statement can be amended by communicating the main upcoming changes 30 days before their entry into force.
2. Items that the CA does not deem to have significant effect on certificate holders and trusting parties may be amended with communication 14 days before their entry into force.