

# Certificate Practice Statement

## PKIoverheid Certificates

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## Revisions

Version	Date	Description
2019-v1	25 February 2019	Initial publication
2019-v2	6 December 2019	Digidentity address modified, removed URL to test certificates G2, aligned CPS with CPS for Digidentity Certificates, added missing sections and removed empty sections to comply to RFC3647 and Mozilla Root Store Policy, updated to Baseline requirements 1.6.6
2020-v1	16 March 2020	Updated to BR 1.6.8, updated to Mozilla Root Store Policy 2.7, updated to PKloverheid PvE 4.8, removed G2 certificates and references (CA expired), updated section on linters (6.1.6), minor text updates, updated Appendix A
2020-v2	9 September 2020	Updated to BR 1.7.1, updated certificates profiles, changed extensions in authorityInfoAccess and cRLDistributionPoints, removed PKloverheid Burger G3 -CA, added Remote Identification and updated face-2-face identification, added clarifications
2020-v3	1 December 2020	Added PKIo SSL G3, adjusted expiry Registered Profession certificate
2021-v1	1 June 2021	Updated to BR 1.7.4, add PKloverheid Issuing CA's, removed PKloverheid Server G3 CA, aligned Section 9 with General Terms & Conditions, processed comments Bugzilla review, add PKloverheid Burger 2021 CA and Organisatie Services 2021 CA
2022-v1	31 January 2022	Updated to BR 1.8.0, updated 6.2.1 with actions in case of revocation HSM certification (ETSI), removed PKloverheid Server 2020 CA, updated remote identification, added handling of attributes, added new ISO certifications
2022-v2	7 October 2022	Updated to BR 1.8.4, added obligations for Seal, updated F2F process, minor corrections, added revocation notification for issuing CA Digidentity PKloverheid Server CA 2020
2023-v1	8 August 2023	Removed issuing CA Digidentity PKloverheid Server CA 2020, updated profiles, removed references to Baseline Requirements, notification to stop issuing encryption certificates

(\*) All changes are marked in grey highlight.

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## 1 Introduction

Digidentity B.V. (Digidentity) is a Certificate Authority (CA) and a Qualified Trust Service Provider (QTSP) in the issuance, management, and revocation of Public Key Infrastructure (PKI) certificates. These certificates offer the highest level of reliability.

This Certificate Practice Statement (CPS) is also known as Trust Service Practice Statement (TSPS) and Identity Proofing Service Practice Statement (IPSPS). When referred to the CPS, the TSPS and IPSPS are included.

### 1.1 Overview

This Certificate Practice Statement (CPS) – describes the practices and procedures that Digidentity Certificate Authority (CA) employs in the life-cycle management containing generation, issuance and revocation of PKI certificates.

This Certificate Practice Statement is structured per RFC 3647 and is divided into nine parts that cover the security controls, practices, certificate profiles and procedures for certificate issuance.

Personal qualified certificates and electronic seal may be used as a signature to legally sign documents.

The Dutch Government are the Policy Authority (PA) and has strict requirements for TSPs and for the issuance of publicly trusted certificates and qualified certificates. This is managed and controlled by the Dutch government organisation Logius with the mandatory requirement for Digidentity CAs to implement the Program of Requirements.

Personal certificates and personal certificates for Registered Professions are also EU Qualified Certificates issued to natural persons and Business Seals are also EU Qualified Certificates issued to legal persons according to Regulation (EU) No 910/2014.

Digidentity is evaluated against the requirements of ETSI EN 319 401, ETSI EN 319 411-1, ETSI EN 319 411-2 (including CA/Browser Forum Network Security requirements), PKI-overheid Programma van Eisen parts 3a (Organisatie & Organisatie Persoon), 3b (Organisatie Services), 3c (Burger), and 3h (Server – Private Services), ISO27001:2013, ISO27701:2019, ISO27017:2015, ISO27018:2019 and ISO9001:2015.

Digidentity is certified against the ETSI EN 319 411-1, ETSI EN 319 411-2, ISO27001:2013, ISO27701:2019, ISO27017:2015, ISO27018:2019 and ISO9001:2015 standards and eIDAS (Regulation (EU) No 910/2014).

This CPS covers the following Certificate Authorities of Digidentity:

CA	OID
Digidentity BV PKloverheid Private Services CA - G1	2.16.528.1.1003.1.2.8.1
Digidentity BV PKloverheid Organisatie Persoon CA - G3	2.16.528.1.1003.1.3.5.8.1
Digidentity BV PKloverheid Burger CA - 2021	2.16.528.1.1003.1.3.3.2.1
Digidentity BV PKloverheid Organisatie Services CA - 2021	2.16.528.1.1003.1.3.5.8.3

## 1.1.1 Intended audience

This document is intended for:

- \* Applicants
- \* Subscribers
- \* Certificate Holders
- \* Company Managers
- \* Relying parties
- \* Registration Authorities
- \* Resellers of Digidentity Products

## 1.1.2 CA Hierarchy

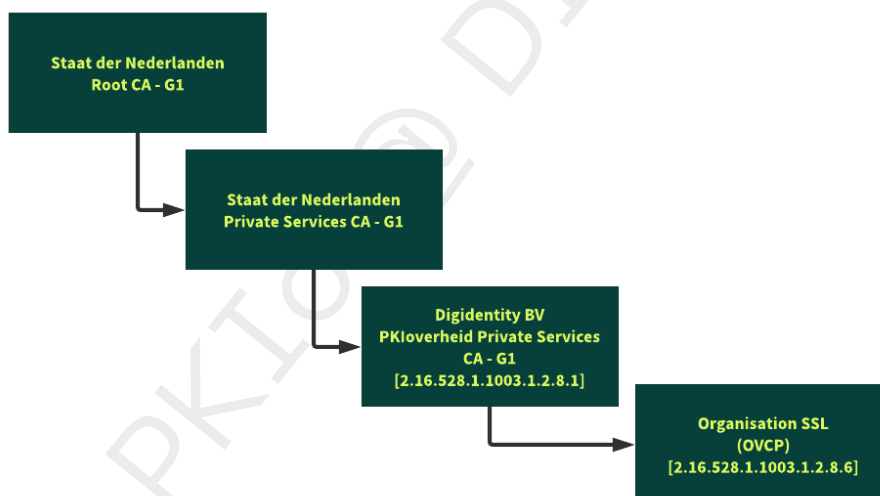


Figure 1 - PKloverheid G1 hierarchy

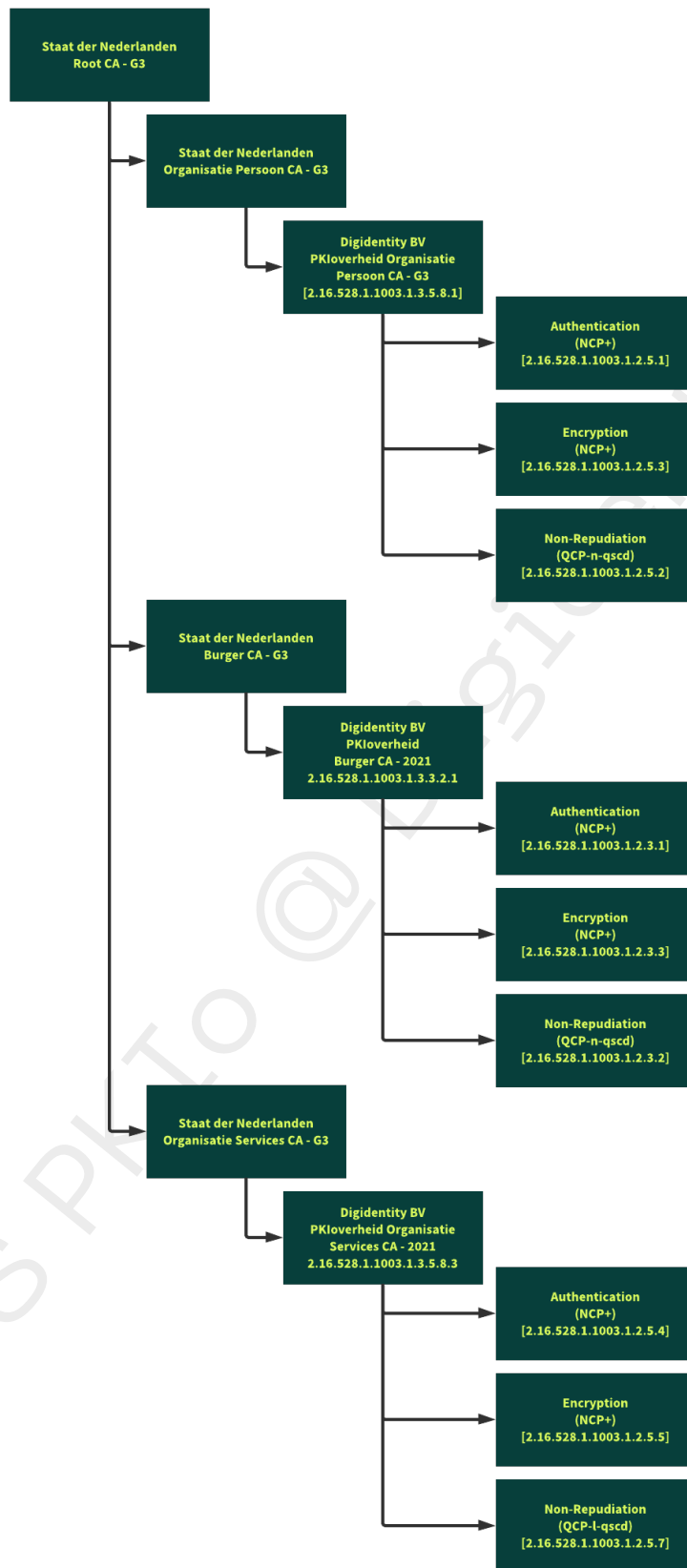


Figure 2 - PKIoverheid G3 hierarchy

## 1.2 Document Name & Identification

This document is identified as Certificate Practice Statement for PKIoverheid Certificates. The Certificate Policies adopted by Digidentity are found in the list within brackets and are equal to the same certificate policies defined in ETSI EN 319 411-1 and ETSI EN 319 411-2.

Digidentity issues subscriber certificates for:

- \* Server certificates for Digipoort (Digidentity BV PKIoverheid Private Services CA - G1) – OID 2.16.528.1.1003.1.3.15.1.1
  - \* Server (OVCP) – OID 2.16.528.1.1003.1.2.8.6
- \* Personal certificates for Registered Professions (Digidentity BV PKIoverheid Organisatie Persoon CA - G3) – OID 2.16.528.1.1003.1.3.5.8.1
  - \* Profession Authentication (NCP+) – OID 2.16.528.1.1003.1.2.5.1
  - \* Profession Encryption (NCP+) – OID 2.16.528.1.1003.1.2.5.3 (\*)
  - \* Profession Non-Repudiation (QCP-n-qscd) – OID 2.16.528.1.1003.1.2.5.2
- \* Personal certificates (Digidentity BV PKIoverheid Burger CA - 2021) – OID 2.16.528.1.1003.1.3.3.2.1
  - \* Personal Authentication (NCP+) – OID 2.16.528.1.1003.1.2.3.1
  - \* Personal Encryption (NCP+) – OID 2.16.528.1.1003.1.2.3.3 (\*)
  - \* Personal Non-Repudiation (QCP-n-qscd) – OID 2.16.528.1.1003.1.2.3.2
- \* Organisation certificates (Digidentity BV PKIoverheid Organisatie Services CA - 2021) – OID 2.16.528.1.1003.1.3.5.8.3
  - \* Organisation Authentication (NCP+) – OID 2.16.528.1.1003.1.2.5.4
  - \* Organisation Encryption (NCP+) – OID 2.16.528.1.1003.1.2.5.5 (\*)
  - \* Organisation Non-Repudiation (QCP-l-qscd) – OID 2.16.528.1.1003.1.2.5.7

(\*) Digidentity will stop issuance of encryption certificates on 1 September 2023.

Qualified certificates for electronic signatures issued to natural persons and Qualified certificates for electronic seals issued to legal persons are also EU Qualified certificates according to Regulation (EU) No 910/2014.

Relying Parties shall recognise a certificate by inspecting the Certificate Policies extension field of the certificate, which shall hold one of the policy OIDs above.

## 1.3 PKI Participants

This document is intended for Registration Authorities, Applicants, Subscribers, Relying Parties, Subcontractors, and Resellers of Digidentity Products.

### 1.3.1 Certificate Authorities

Digidentity is the Certificate Authority for PKIoverheid Certificates listed in section 1.2.



### 1.3.2 Registration Authorities

A Registration Authority (RA) is an entity that performs the validation and verification the identity of the applicant when requesting a certificate. Once the Registration Authority has provided approval, then the CA can issue the certificate to the applicant. Once the certificate is issued, the applicant becomes the Subscriber.

The Registration Authority (RA) is Digidentity. Digidentity may authorise a delegate RA to perform functions of the registration process. Any delegated RA must comply to the requirements of this document. Digidentity will contractually require each RA or delegated third party to comply the policies and applicable standards and regulations.

### 1.3.3 Subscribers, Certificate Holder, Company Manager

Subscribers can be a;

- [1] natural person
- [2] natural person with a registered profession
- [3] legal person represented by natural person(s)

Subscribers use our **Products**. Subscribers are not always the party identified in a certificate, e.g. when a certificate is issued to a device. The Subscriber must accept the General Terms & Conditions regarding the use of the certificate.

The subject of a certificate is the party named in the certificate as the holder of the Private Key associated with the Public Key given in the certificate. The subject can be a;

- [1] natural person
- [2] legal person (e.g. Organisation)
- [3] device or system operated represented by a natural or legal person

A subscriber may refer to the subject of the certificate and the entity that contracted Digidentity for the certificate's issuance. Before the identity of the Subscriber is verified, a Subscriber is an Applicant.

The Certificate Holder is the entity stated in the subject field of the certificate, and the holder of the private key. Holders of personal certificates are natural persons. Holders of server certificates are organisations. The Company Manager is the representative of an organisation and holder of the private key.

### 1.3.4 Relying Parties

Relying parties are parties who rely upon the trusted status of the certificate. Relying parties will assess the status of the issued certificate before continuing communication with the subscriber. The status of the certificate can be valid, revoked or expired.

### 1.3.5 Other Participants

In the provision of Products related to digital certificates, Digidentity has the following participants;

- [1] Identity verification services
- [2] Identity document validation services
- [3] Professional Bodies (e.g. Royal Netherlands Institute of Chartered Accountants)
- [4] Resellers of Digidentity Products
- [5] Organisation verification services (e.g. Chamber of Commerce)

## 1.4 Certificate usage

### 1.4.1 Appropriate certificate usage

Within PKI-overheid Digidentity CAs issues certificates which may be used for the purposes explained in this document, in the Terms & Conditions and as identified in the Key Usage field of the certificate.

#### Personal Certificates (Qualified) – Personal or for Registered Profession

- \* Authentication Certificate: can be used to reliably authenticate a natural person.
- \* Encryption Certificate: can be used for the securing of trusted information/details which are exchanged in electronic form. This includes exchanges between people as well as people and automated systems.
- \* Non-repudiation Certificate: can be used to digitally sign documents. These certificates are issued as Advanced or Qualified certificates and are issued and stored on a Qualified Secure Signature Creation Device (QSCD). Digidentity complies to the EU regulations for electronic signatures No. 910/2014 (eIDAS).

#### Seals (Qualified)

- \* Authentication Certificate: can be used to reliably authenticate a legal person.
- \* Encryption Certificate: can be used for the securing of trusted information/details which are exchanged in electronic form.
- \* Non-repudiation Certificate: can be used to digitally sign documents on behalf of an organisation. These certificates are issued as qualified certificates for electronic seals. The certificates are issued and stored on a Qualified Secure Signature Creation Device (QSCD). Digidentity complies to the EU regulations for electronic signatures No. 910/2014 (eIDAS).

#### Server Certificates

Server certificates can be used for securing the connection between a specific client and server which are related to an organisation

#### **1.4.2 Prohibited certificate usage**

Certificates issued under this CPS are prohibited from being used for any other purpose than described. Certificates do not guarantee that the subject is trustworthy, honest, reputable, safe to do business with, or compliant with any laws. A certificate only establishes that the information in the certificate was verified in accordance with this CPS when the certificate issued.

### **1.5 Policy Administration**

#### **1.5.1 Organisation Administration**

Digidentity B.V.  
Waldorpstraat 13-F  
2521 CA The Hague  
The Netherlands

#### **1.5.2 Contact Person**

For questions about this document please contact;

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Security, Risk & Compliance (SRC)  
Waldorpstraat 13-F  
2521 CA The Hague  
Tel: +31 (0)88 778 78 78  
E-mail: [security@digidentity.com](mailto:security@digidentity.com)

In case of suspected Private Key Compromise, Certificate misuse, or other types of fraud, compromise, misuse, inappropriate conduct, or any other matter related to Certificates or this document, Relying Parties, Application Software Suppliers, and other third parties can contact Digidentity at [security@digidentity.com](mailto:security@digidentity.com).

The process for revocation of certificates, including contact details, is described in paragraph 4.9.3.

#### **1.5.3 Person determining CPS suitability for the Policy**

No stipulation

#### **1.5.4 CPS Approval Procedures**

This document is subject to a review at least once a year and is included in the internal audit schedule. The version of this document and the changelog will be updated even if no changes are made. Compliance of this document with RFC 3647, ETSI EN 319 401, ETSI EN 319 411-1, ETSI EN 319 411-2, PKIoverheid Program of Requirements and eIDAS will be assessed, and any inconsistency remedied. Before publishing, this document is approved by Digidentity Management with a digital signature.

This document will be published signed with a Digidentity Seal, and thus made available after approval from Digidentity Management.

## 1.6 Definitions & Abbreviations

See Appendix A for the table with abbreviations and definitions.

CPS PKIO @ Digidentity

## 2 Publication & Repository Responsibilities

### 2.1 Repositories

Digidentity maintains an online repository, containing:

- [a] Certificate Practice Statement, PKI Disclosure Statement
- [b] General Terms & Conditions, Privacy Statement, Product Specific Terms & Conditions
- [c] Certificates of Digidentity TSP CAs and issuing CAs for PKIoverheid

All information is available in a read-only format and can be accessed via: <https://cps.digidentity-pki.com/>.

### 2.2 Publication of Information

Digidentity maintains a repository and is responsible for the repository functions for the issuing CAs under its control. The Certificate Practice Statement for PKIoverheid Certificates is available 24 x 7 in a read-only format on the Digidentity website (<https://cps.digidentity-pki.com/>).

The Certificate Practice Statement is structured in accordance with RFC 3647 and includes all material required by RFC 3647.

All PKIoverheid certificates issued by Digidentity have a CRL distribution point extension that contains an URL for CRL retrieval. All PKIoverheid Server certificates also have an Authority Information Access extension that contains an URL for the OCSP service.

Subscriber test certificates are hosted by the Policy Authority (see section 2.2 of the applicable CPS of PKIoverheid at <https://cps.pkioverheid.nl/>).

Subscribers can download their certificates in their Digidentity account.

### 2.3 Time or Frequency of Publication

Digidentity publishes updates of this document and other documents in the repository at least once per year or when significant changes are implemented. Changes are documented in the revisions table and incrementing the version number of this document.

### 2.4 Access Control & Repositories

The repository is protected against unauthorised changes. All publications in the repository are available 24 hours a day, 7 days a week. Digidentity aims to restore the website and/or repository within four (4) hours in the event the website becomes unavailable.

## 3 Identification & Authentication

### 3.1 Naming

Digidentity recognises and interprets names per x.500 name standard to define the assignment of certificates, where a distinguished name (DN) is specified in each certificate issued.

#### 3.1.1 Types of Names

The types of names used by Digidentity are shown in the tables below. The “Max. Length” refers to the maximum number of characters which may be used for each field.

##### Personal Certificates

Field	Description	Max. Length
Common Name (CN)	Given Names and Surname as registered on ID	64
Serial Number (SN)	Unique number to identify subject	64
Country (C)	Two-digit country code (nationality or ID issuing country)	2
Given Name (GN)	Given Names as registered on ID	64
Surname (S)	Surname as registered on ID	64

##### Personal Certificates for Registered Professions

Field	Description	Max. Length
Common Name (CN)	Given Names and Surname as registered on ID	64
Serial Number (SN)	Unique number to identify subject	64
Country (C)	Two-digit country code (nationality or ID issuing country)	2
Given Name (GN)	Given Names as registered on ID	64
Surname (S)	Surname as registered on ID	64
Title (T)	Official registered profession title of subscriber	64
Organisation Name (O)	Given Names and Surname as registered on ID	64

##### Organisation Certificates (Seal)

Field	Description	Max. Length
Common Name (CN)	Name of the Organisation as registered in Trade Register	64
Country (C)	Two-digit country code (nationality or ID issuing country)	2
Organisation Name (O)	Name of the Organisation as registered in Trade Register	64
organizationIdentifier	Organisation Trade Register number	64

## Server (G1) certificates

Field	Description	Max. Length
Common Name (CN)	SBR Digipoort	64
Organisation Name (O)	Name of the Organisation as registered in Trade Register	64
Country (C)	Two-digit country code (nationality or ID issuing country)	2
Serial Number (SN)	Organisation Trade Register number	64

### 3.1.2 Need for Names to be Meaningful

The naming of the Distinguished Name in the certificates based on the tables above, should result in names to be meaningful, unambiguous, and unique and allows any relying party to identify the subscriber.

### 3.1.3 Anonymity or Pseudonymity of Subscribers

No stipulation.

### 3.1.4 Rules for Interpreting Various Name Forms

No stipulation.

### 3.1.5 Uniqueness of Names

No stipulation.

### 3.1.6 Recognition, Authentication and Role of Trademarks

Applicants shall not use names which infringe upon the intellectual property rights of others.

Digidentity is not required and do not determine whether a certificate applicant has intellectual property rights, and therefore do not mediate, arbitrate or try to resolve any dispute regarding the ownership of any intellectual property or trademarks.

Digidentity reserves the right, without liability, to reject any application for a certificate.

## 3.2 Initial Identity Validation

All applicants start the registration by creating a personal account on the Digidentity website (<https://auth.digidentity.eu/accounts/new>). Depending on the products, additional identity validation of an individual (see 3.2.4) or organisation (see 3.2.2) is performed.

In the Digidentity Self-Service Portal (<https://selfservice.digidentity.eu>), server certificates can be revoked. A Digidentity account is required to access the Self-Service Portal. An applicant can register for an account on the My Digidentity website ([my.digidentity.eu](https://my.digidentity.eu)).

### 3.2.1 Method to prove possession of Private Key

For Personal Qualified certificates, Personal Qualified certificates for Registered Profession, and Seals, Digidentity generates and stores private keys within Hardware Security Modules (HSMs). The HSM is controlled by Digidentity within the CA operations facilities. During the process of registration, the subscriber will create a PIN code on their mobile device to link the private keys on the HSM to the mobile device (e.g. mobile phone or tablet) and the verified identity of the subscriber to guarantee the private key is under the subscriber's sole control.

The PIN code protecting the private keys is only known to the subscriber. The private keys remain encrypted in the HSM, until a service is accessed by the subscriber, and the correct PIN code is provided via their mobile device. The subscriber will receive a push notification on their mobile phone upon successful instigation of a signing request e.g. using their login details.

For server certificates, Applicants or Subscriber generate their own private key and send a signed Certificate Signing Request (CSR) to prove possession of the private key, which corresponds to the public key in the certificate request. For server certificates the private key is in control of the Company Manager of the subscribing organisation.

### 3.2.2 Authentication of Organisation & Domain Identity

Digidentity does not issue certificates containing a domain name.

#### 3.2.2.1 Identity

Digidentity verifies organisational identities with the Dutch Chamber of Commerce using the Chamber of Commerce registration number (KvK number) of the organisation. After the KvK number is entered, the details are retrieved automatically via a secure connection with KvK. The address, name and country details are taken directly from the KvK register.

The identity of foreign organisations and legal representatives can be verified by local authoritative source or a notary.

For Dutch governmental agencies, an OIN (Organisation Identification Number) is used to verify the identity of the organisation. The OIN is issued by the Dutch government and the organisation details are verified by Digidentity at Logius (Dutch government).

Identification of natural person legally representing an organisation or authorised to act on behalf of an organisation, is described in section 3.2.3.

#### 3.2.2.2 DBA/Tradenname

The organisation tradenname is checked via the details on the Chamber of Commerce Registry. The tradenname must match the one on the registry document. The company must be fully operational, with no limitations recorded e.g. bankruptcy, limitations on trading/operation. If there is a limitation appearing on the registry, Digidentity will reject the application for a certificate.



### **3.2.2.3 Verification of Country**

Digidentity uses the method in section 3.2.2.1.

### **3.2.2.4 Validation of Domain Authorisation or Control**

Digidentity does not use these methods.

### **3.2.2.5 Authentication for an IP Address**

Digidentity does not use these methods.

### **3.2.2.6 Wildcard Domain Validation**

Digidentity does not use this method.

### **3.2.2.7 Data Source Accuracy**

Documents relied upon by Digidentity for the verification may not be expired at the time of certificate issuance. This includes:

- \* Chamber of Commerce data – not older than fifteen (15) days

If the document is older, Digidentity may request updated documents from the applicant. Digidentity impose these time limits to ensure the accuracy and reliability of data.

Upon request for a new certificate, it may be necessary to request a new identity document to reverify information included in the certificate.

### **3.2.2.8 CAA Records**

Digidentity does not use this method.

## **3.2.3 Authentication of Individual Identity**

Digidentity verifies the identity of natural persons for qualified certificates or the legal representative/ delegated authorised person (see below) of an organisation with the data described the next sections.

For detailed description of identity proofing for each context, we refer to the document "Identity Proofing @ Digidentity" on our website (<https://www.digidentity.eu/en/documentation>).

### **3.2.3.1 Personal Details**

Full legal name as shown on a copy of a valid government issued identity document (passport or national ID card), date of birth, place of birth, document expiry date, document number and gender.

Digidentity uses the records of professional bodies to verify the natural person is allowed to use the title of the profession. The professional title must be independently confirmed by a Professional Body.

### 3.2.3.2 E-mail address

Applicants are required to enter an e-mail address during the initial registration process or when requesting a certificate containing an e-mail address. Digidentity verifies the e-mail address by sending a confirmation code to the entered e-mail address. The Applicant enters the confirmation code to confirm control over the e-mail address. If this confirmation code is not entered, or entered incorrectly, registration will not proceed. The confirmation code is generated as Random Value. The confirmation code is valid for seven (7) days.

### 3.2.3.3 Country

The country field in the certificate will be filled with the nationality of the Applicant if present on the identity document or the issuing country of the identity document.

### 3.2.3.4 Phone number

Mobile phone number is used to send messages or contact you for a face-to-face meeting. Digidentity sends a confirmation code to the mobile phone using the applicant's supplied mobile phone number.

### 3.2.3.5 Remote identification

Digidentity has developed and implemented a Remote Identification process as an alternative to face-to-face verification to verify the identity of the natural person, validation of the identity document and linking natural person to the identity document.

Our remote identification process uses the NFC capabilities of the mobile phone to read the NFC chip in the ID or take video and photos from the ID.

Digidentity conforms to ETSI TS 119 461 for the use cases:

- \* 9.2 Use cases for identity proofing of natural person
- \* 9.2.3 Use cases for unattended remote identity proofing
- \* 9.2.3.3 Use case for hybrid manual and automated operation
- \* 9.2.3.4 Use case for automated operation
- \* 9.3 Use case for identity proofing of legal person
- \* 9.4 Use case for identity proofing of natural person representing legal person

Digidentity uses remote identification to perform identity proofing for all identity proofing contexts. The remote identification method is determined by the level of assurance of the **Product** selected:

- \* Level of Assurance 4, EU Qualified or eIDAS High - remote identification using NFC, biometric verification
- \* Level of Assurance 3, EU Advanced or eIDAS Substantial - remote identification using NFC or video of ID, biometric verification
- \* Level of Assurance 2 or eIDAS Low - remote identification using NFC or video of ID

The Digidentity Remote Identification process has been confirmed by an external auditor as equal assurance to physical presence.

#### **3.2.3.5.1 Validation of Identity Documents using NFC**

Digidentity supports the use of Near Field Communication (NFC) to read the NFC chip in modern identity documents (e.g. passports, identity cards and driver's licenses). This chip is standardised as part of Doc 9303, Machine Readable Travel Documents (MRTD), by the International Civil Aviation Organization (ICAO). Digidentity performs an automated validation of the ID and verification of the data using cryptographic controls.

The Applicant uses the Digidentity Wallet (mobile app for iOS and Android) to read the data from the chip in the identity document using passive authentication and if available clone detection. The data uploaded to Digidentity includes the high-resolution photo of the document holder.

This method is used for all Products but is mandatory for Qualified certificates, Seals and eIDAS High or other Level of Assurance level 4 Products.

#### **3.2.3.5.2 Validation of Identity Documents using images**

Digidentity supports the validation of identity documents using photos of the physical identity document. The Applicant uses the Digidentity Wallet (iOS and Android) to take photos of the identity document. The images are uploaded to Digidentity.

An automated of the security features of the document is performed to detect manipulation. The validity of the document is inspected, as well as the date issuance. The data on the document from the Visual Inspection Zone (VIZ) and the Machine-Readable Zone (MRZ) is extracted. The data is compared, analysed, and verified to determine the correctness and plausibility of the data.

The validation process uses a combination of technologies to validate the genuineness of the identity document. This includes sophisticated artificial intelligence analytics (computer vision, machine learning and deep learning) to analyse video of IDs, collecting evidence for identity verification. A higher level of machine learning weighs the results from hundreds of these algorithms, making an intelligent decision about the relative importance of each piece of evidence, then predicts whether the ID is genuine. The analysis will detect if a photo is real and not a photo of a screen or copy of an identity document.

This method is used for Products with a level of assurance 3 and lower.

#### **3.2.3.5.3 Verification of natural person using Liveness Detection**

Digidentity performs liveness detection using artificial intelligence to verify an actual 'live' person is performing the registration process. Liveness detection of the Applicant is performed during the selfie taking process.

The Digidentity Wallet starts a video stream of the Applicant where the Applicant must move their head in a randomly selected direction. The Wallet extracts to images from the video stream which are used for the liveness detection. The **artificial intelligence** system detects natural movement of the head and verifies that the photos are not taken from a screen, video or the Applicant is wearing a mask. The registration process continues when liveness detection was successful. The Applicant is allowed to perform five liveness detection attempts. The registration process stops when liveness is not detected after five attempts.

The biometric validation uses artificial intelligence in several instances of Deep Convolutional Neural Networks (DCNN) to provide Digidentity with a true or false response. The DCNN for face comparison and liveness detections are trained on datasets using more than five million face images.

#### **3.2.3.5.4 Binding a natural person to an Identity Document using Face Comparison**

Digidentity uses face comparison to link or bind the natural person to the identity document provided as evidence. We use the high-resolution image from the NFC chip or the image extracted from the photo of the ID to compare to the selfies taken by the Applicant.

The comparison is performed on our servers. No user profiles are created. Using a combination of sophisticated artificial intelligence analytics (computer vision, machine learning and deep learning) to analyse photos from the IDs and end-users' face selfies, collecting evidence for identity verification. A higher level of machine learning weighs the results from hundreds of these algorithms, making an intelligent decision about the relative importance of each piece of evidence, then predicts whether the ID photo is genuine and belongs to the Applicant. The analysis will detect if a photo is real and not a photo of a screen or copy of an ID and if the live person matches the person on the ID.

#### **3.2.3.6 Face-to-face verification**

For eHerkenning Level 4, Digidentity may verify the identity of the natural person and the identity of a legal representative or authorised representative of an organisation with a face-to-face check. We will make an appointment by phone for this check. During the F2F, Digidentity will verify the identity document.

Digidentity can make exceptions for F2F identification at our office by using a notary. In the event the Applicant cannot visit our office, in person identification by a notary is possible. Digidentity must approve the identification using notary in advance. Costs of identification in person by a notary are for the Applicant/Subscriber.

#### **3.2.3.7 Terms & Conditions and Privacy Statement**

During registration, it is required to agree with the General Terms & Conditions and Privacy Statement.

### 3.2.3.8 General verifications

For all applications, Digidentity verifies:

- \* Organisational information where applicable
- \* All representatives must be identified on the level of assurance of the Product

If the legal representative of an organisation approves, it is possible to authorise another person to handle the application and management of certificates as a Company Manager. The delegated person will be verified via the process described above, including remote identification or when required, a face-to-face check. The delegated person also needs to submit a signed authorisation letter from the legal representative, stating the authorisation for the delegated person. Digidentity verifies the authorisation letter by name and signature match of the legal representative.

If the legal representative of an organisation approves, it is possible to authorise another person to handle the authorisations of the organisation as the Company Manager. The delegated person will be verified via the process described above, including remote identification or when required, a face-to-face check. The delegated person also needs to submit a signed authorisation letter from the legal representative, stating the authorisation for the delegated person. Digidentity verifies the authorisation letter by name and signature match of the legal representative.

### 3.2.4 Non-Verified Subscribers Information

Digidentity does not verify any IP addresses, or intellectual property rights of applicants.

### 3.2.5 Validation of Authority

Digidentity validates the applicant's legal status (described in section 3.2.2) by:

- \* Checking the company registration with an authoritative source (e.g. Chamber of Commerce, PROBAS, other register or notary) for organisational applicants
- \* Checking the identity of the applicant with remote identification or with a face-to-face check.
- \* Where the applicant has been authorised by the legal representative of an organisation, authorisation must be completed, or there must be a completed authorisation available.

### 3.2.6 Criteria for Interoperation or Certification

Digidentity has no interoperation or cross-certification.

## 3.3 Identification & Authentication for Re-Key Requests

Digidentity does not perform re-key of certificates.

## 3.4 Identification & Authentication for Revocation Request

If the subscriber wishes to make an application for revocation (deletion and deactivation included), then the following is applicable;

#### 3.4.1 Website

Subscribers can log into their account and revoke personal certificate(s). If a Subscriber can log into their account, the identity is verified. After selecting 'delete smart card and revoke certificates', the subscriber must confirm revocation on the mobile device by entering the Virtual Smart Card's PIN code. After confirmation on the mobile device, the certificates are revoked and the link between mobile device and certificates is deleted.

To revoke server certificates, the Subscriber or Company Manager must log into their account to access the Self-Service Portal (SSP). In the SSP, the Subscriber or Company Manager can select the certificate to be revoked. A confirmation of the revocation is sent via e-mail.

#### 3.4.2 Account recovery

Digidentity asks Subscribers to revoke their certificates themselves. If a Subscriber is not able to access the account and is unable to revoke the certificate(s), an account recovery process should be started. For personal certificates, the account recovery process verifies possession of the e-mail address in the account by sending a confirmation code to the Subscriber. After the confirmation code is entered, the Subscriber can enter a new password to access the account. After the account recovery, the Subscriber can revoke the certificate themselves in the account as described above.

#### 3.4.3 Recover smart cards

In case the Subscriber has lost the device, forgotten the five-digit PIN code or has deleted the mobile app, the Subscriber has to create a new Virtual Smart Card to recover the 'lost' certificates. The Subscriber can log in to the account and click on "I lost access to these authenticators", when asked for a two-factor authenticator. The account recovery process is started where, for additional verification, the date of birth is requested. After providing the correct confirmation code and date of birth, the Subscriber has access to the account.

The Subscriber can request a new Virtual Smart Card with certificates by clicking "recover". In the account, the evidence collected from the identity document during registration is deleted, the product status is moved to 'pending' and the authenticator is deactivated. The Subscriber can now start the process to create a new smart card and certificates by scanning a QR-code and uploading an identity document. After verification, a QR code can be scanned to create the Virtual Smart Card with Certificates as well as a new five-digit PIN code. The Virtual Smart Card with new certificates is then activated.

#### 3.4.4 Phone

If the Subscribers or Company **Administrators** cannot login to the account, it is possible to receive support to access the account by calling Digidentity. The Service Desk is available during office hours. Outside office hours, you can call the emergency revocation line (see Section 4.9.3).

Digidentity will always support the subscriber to revoke the certificates themselves on the website. In case, access to the account is lost or access to the smart card on the mobile device is lost, we support the subscriber with the recovery process as described in 3.4.1.

Digidentity recognises that it is not always possible for Company Administrators to revoke certificates. In these instances, Company Administrators may call Digidentity (see Section 4.9.3 for the revocation procedure).

Company Administrators are required to answer questions to confirm their identity, and the certificate that requires revocation:

- \* Official Name
- \* Company registration number
- \* Organisation name
- \* E-mail address
- \* Certificate to be revoked

If answered correctly, Digidentity will send an e-mail, requesting confirmation for the revocation, to the Company Administrators' e-mail address, as shown in the account. The Company Administrator must reply to this for the revocation to take place. If the Company Administrators no longer has the e-mail address in the account, we request a copy of their identity document to verify their identity.

#### **3.4.5 E-mail**

Digidentity does not accept revocation requests via e-mail or other means. We are required to revoke certificates within four (4) hours after the request is made which we cannot guarantee if the revocation request is not performed according to the three procedures described.

If the subscriber has lost access to the e-mail address in the account, the account cannot be recovered.

#### **3.4.6 Professional Bodies**

The NBA can request revocation of certificates for Registered Professions issued to a natural person. Digidentity and NBA agreed on a procedure for revocation requests to revoke these certificates in case a registered accountant is no longer entitled to the title of the registered profession.

## 4 Certificate Life–Cycle Operation Requirements

### 4.1 Certificate Application

#### 4.1.1 Who Can Submit a Certificate Application

A certificate application can be submitted by a:

- [1] Natural person applying for a personal qualified certificate
- [2] Natural person applying for a personal qualified certificate for Registered Professions
- [3] Natural person legally representing an Organisation (legal entity) and applying for a business qualified certificate for electronic seals,
- [4] Natural person legally representing an Organisation (legal entity) and applying for a server certificate for that Organisation.

Before applying for a certificate, an Applicant must register via the Digidentity website or the Digidentity mobile app.

#### 4.1.2 Enrolment Process and Responsibilities

The Applicant is responsible for providing Digidentity with correct and up-to-date data required for the generation and issuance of certificates and for the correct use of the certificates. The Applicant warrants to Digidentity and Relying Parties that they will abide by the General Terms & Conditions, Product Terms & Conditions, and the CPS.

The Applicant is required to accept the General Terms & Conditions, Product Terms & Conditions and Privacy Statement. If any of the information required to issue a certificate is missing/incomplete or produces a negative outcome e.g. the organisation is in bankruptcy, or the identification document is indicated not to be genuine, then Digidentity will reject the application for a certificate. Certificates linked to an organisation require an authorisation process during registration, to determine the legal status of the applicant as an organisational representative and a verification of the organisation details.

For certificates for Registered Professions, a Chamber of Commerce registration is required.

Subscribers have obligations for the use of the certificate, which are set out in General Terms & Conditions, Product Terms & Conditions, the CPS and a contract where applicable. Prior to any certificate issuance the subscriber will be required to accept the applicable Terms & Conditions.

### 4.2 Certification Application Processing

Digidentity carries out verification procedures during the registration process (see Section 3.2).

Digidentity does not issue certificates that contain FQDN so no CAA Records for FQDN are processed.

#### 4.2.1 Performing Identification and Authentication Functions

See section 3.2.



#### **4.2.2 Approval or Rejection of Certificate Applications**

Digidentity rejects any certificate application that cannot be verified. Digidentity does not issue certificates containing Internal Names.

If any steps in the registration process fail, Digidentity will reject the certificate request.

#### **4.2.3 Time to Process Certificate Applications**

Digidentity can process certificate application information during Service Desk opening hours. Completion of the certification issuing process is dependent on type of certificate and the availability of both parties (Digidentity and applicant) to make an appointment for the face-to-face identity check if applicable. The total processing time from application to issuance of a certificate is approximately fifteen (15) minutes to five (5) working days.

### **4.3 Certificate Issuance**

The issuance of any certificate by Digidentity is carried out per the information in this CPS, per the requirements (legal and regulatory) described in Section 1.1.

For Qualified Certificates, and Seals, once the Virtual Smart Card creation is completed, the Subscriber has possession. The Virtual Smart Card is used/activated by entering the PIN code upon receiving a push notification on their mobile phone. The Subscriber can download the certificates from their Digidentity account. Company Managers are able to download server certificates by signing into Self Service Portal using their account credentials.

#### **4.3.1 CA Actions During Certificate Issuance**

Certificate issuance by the Root CA's is only performed by the Policy Authority operations facility.

#### **4.3.2 Notification of Certificate Issuance**

Upon successful application and issuance of a certificate, the applicant will receive a notification via e-mail.

### **4.4 Certificate Acceptance**

#### **4.4.1 Conduct Constituting Certificate Acceptance**

Upon successful issuance of the certificate, the Applicant is known as the Subscriber. The certificate is deemed to have been accepted by the subscriber once:

- \* The Virtual Smart Card is linked with a PIN code to the Subscriber
- \* The certificate has been downloaded, used and/or installed.
- \* A period of more than one (1) calendar month has passed and no communication has been received from the Subscriber.

#### **4.4.2 Publication of the Certificate by the CA**

Digidentity has published all CA certificates of the Digidentity CA hierarchy as described in section 1.1.2 in the repository on the Digidentity website (<https://cps.digidentity-pki.com/>).

#### **4.4.3 Notification of Certificate Issuance by the CA to Other Entities**

Digidentity only notifies the Subscriber of a certificate. Other relying parties are able to enquire certificate statuses via the CRL and possibly the OCSP.

### **4.5 Key Pair & Certificate Usage**

#### **4.5.1 Subscriber Private Key and Certificate Usage**

The Subscriber has the obligation to use the certificate in accordance with this CPS, the General Terms & Conditions, Product Terms & Conditions and the Key Usage field on the certificate itself. Relying parties may only use the public key of the certificate for the purposes described in the relying party agreements with Digidentity, and as described in this document. The appropriate certificate usage is denoted by the Key Usage field provided in the certificate.

#### **4.5.2 Relying Party Public Key and Certificate Usage**

Relying parties are responsible for verifying:

- [1] certificate validity.
- [2] validity of the complete chain of certificates, up to the root certificate.
- [3] revocation status of the certificate.
- [4] limitations on any use of the certificate
- [5] authenticity of all Certificate Status information is verified by the electronic signature by which the information has been signed

### **4.6 Certificate Renewal**

Digidentity does not perform renewal of issued certificates. Digidentity renews a certificate by issuing new certificate.

#### **4.6.1 Circumstance for certificate renewal**

No stipulation

#### **4.6.2 Who may request renewal**

No stipulation

#### **4.6.3 Processing certificate renewal requests**

No stipulation

#### **4.6.4 Notification of new certificate issuance to subscriber**

No stipulation

#### **4.6.5 Conduct constituting acceptance of a renewal certificate**

No stipulation

#### **4.6.6 Publication of the renewal certificate by the CA**

No stipulation

#### **4.6.7 Notification of certificate issuance by the CA to other entities**

No stipulation

### **4.7 Certificate Re-Key**

Digidentity does not perform re-key of certificates.

#### **4.7.1 Circumstance for certificate re-key**

No stipulation

#### **4.7.2 Who may request certification of a new public key**

No stipulation

#### **4.7.3 Processing certificate re-keying requests**

No stipulation

#### **4.7.4 Notification of new certificate issuance to subscriber**

No stipulation

#### **4.7.5 Conduct constituting acceptance of a re-keyed certificate**

No stipulation

#### **4.7.6 Publication of the re-keyed certificate by the CA**

No stipulation

#### **4.7.7 Notification of certificate issuance by the CA to other entities**

No stipulation

### **4.8 Certificate Modification**

Digidentity does not perform modification of certificates.

#### **4.8.1 Circumstance for certificate modification**

No stipulation

#### **4.8.2 Who may request certificate modification**

No stipulation

#### **4.8.3 Processing certificate modification requests**

No stipulation

#### **4.8.4 Notification of new certificate issuance to subscriber**

No stipulation

#### **4.8.5 Conduct constituting acceptance of modified certificate**

No stipulation

#### **4.8.6 Publication of the modified certificate by the CA**

No stipulation

#### **4.8.7 Notification of certificate issuance by the CA to other entities**

No stipulation

## 4.9 Certificate Revocation & Suspension

### 4.9.1 Circumstances for Revocation

Revocation occurs when the certificate is permanently revoked before the natural expiration time of the certificate. Digidentity reserves the right to revoke certificates at its own discretion and/or based on information received.

#### 4.9.1.1 Reasons for Revoking a Subscriber Certificate

Digidentity will revoke a certificate when:

- [1] Subscriber notifies the CA that the original certificate request was not authorised and does not retroactively grant authorisation;
- [2] CA obtains evidence that the Private Key corresponding to the Public Key in the Certificate suffered a Key Compromise or no longer complies with the requirements of Section 6.1.5 and 6.1.6;
- [3] CA obtains evidence that the certificate was misused;
- [4] CA is made aware that a Subscriber has violated one or more of its material obligations under the Subscriber Agreement, General Terms & Conditions or Product Terms & Conditions;
- [5] CA is made aware of a material change in the information contained in the certificate;
- [6] CA is made aware that the certificate was not issued in accordance with the requirements or the CAs Certificate Policy or Certification Practice Statement;
- [7] CA determines that any of the information appearing in the certificate is inaccurate or misleading;
- [8] CA ceases operation for any reason and has not made arrangements for another CA to provide support for revocation of the Certificate;
- [9] Revocation is required by the CA's Certificate Policy and/or Certification Practice Statement; or
- [10] Technical content or format of the certificate presents an unacceptable risk to Subscribers, Relying Parties and third parties (e.g. that a deprecated cryptographic/signature algorithm or key size presents an unacceptable risk and that such Certificates should be revoked and replaced within a given period of time);
- [11] The Subscriber ceases operation;
- [12] The Subscriber is deceased

#### 4.9.1.2 Reasons for Revoking a Subordinate CA Certificate

Revocation of Subordinate CA Certificate is performed by the Policy Authority PKloverheid.

### 4.9.2 Who can request Revocation?

Revocation can be requested by:

- [a] The Subscriber (or Certificate Holder)
- [b] A legal representative or authorised person of the organisation (Company Administrator)
- [c] Digidentity
- [d] Professional Bodies
- [e] Authorities/regulators who are involved in the regulation of PKloverheid activities, e.g. Logius

Digidentity has the mandatory requirement to revoke certificates if there is notification that the Subscriber/or legal representative in the certificate is deceased.

#### **4.9.3 Procedure for Revocation Request**

Revocation of certificates can be performed:

- [1] By the Subscriber themselves, by logging into their account and requesting the revocation of issued certificates. The Subscriber is able to click "Change two-factor authentication", "Revoke Certificates".
- [2] During office hours (8.30 – 17.00 hours) by calling the Service Desk at +31 (0)88 778 78 78
- [3] Outside of office hours by calling the emergency revocation line at +31 (0)88 778 78 00

Revocation must be performed by the Subscriber. If you call Digidentity for revocation, we will support you in accessing your account and enable you to revoke your certificates yourself. Digidentity will not revoke the certificate on your behalf.

Subscriber is able to log into their account and click "Revoke certificates". The Subscriber is able view their Virtual Smart Cards which contains their certificates. By deleting a specific Virtual Smart Card, all three (3) associated certificates (authentication, encryption and non-repudiation) will be revoked. Revocation occurs immediately.

To revoke server certificates, the Subscriber or Company Manager must log into their account in the Self-Service Portal (SSP) using two factor authentication. In the SSP, the certificate to be revoked.

Third parties can request revocation of a Subscriber certificate by contacting Digidentity to request revocation and provide evidence to support the revocation request.

The Subscriber or Company Manager will receive confirmation of the revocation of the certificates. The procedure for identity validation for revocation is described in section 3.4.

#### **4.9.4 Revocation Request Grace Period**

For certificates the revocation is immediate. There is no grace period.

#### **4.9.5 Time within which Certificate Authority must process the Revocation Request**

Digidentity processes and completes the revocation of certificates within four (4) hours of receiving the request to revoke from the Subscriber.

#### **4.9.6 Revocation Checking Requirement for Relying Parties**

Relying Parties are responsible for checking the certificate status and CRL. Relying Parties that fail to check the status of the certificate cannot legitimately rely on the certificate.

#### **4.9.7 CRL Issuance Frequency**

Digidentity publishes the CRL for the issuing CA every **four (4) hours**, whereby the CRL is valid for 24 hours.

All Digidentity certificates issued by Digidentity have a CRL distribution point extension that contains an URL for CRL retrieval.

#### **4.9.8 Maximum Latency for CRLs**

The maximum latency for the CRL is ten (10) seconds.

#### **4.9.9 Online Revocation/Status checking Availability**

All Digidentity server certificates have an Authority Information Access extension that contains an URL for the OCSP service. OCSP is updated within 4 hours when a certificate is revoked. OCSP responses are valid for seven (7) days. All OCSP responses conform to RFC6960.

All responses are digitally signed by the private key of Digidentity TSP CA, or by a Digidentity issuing CA which issued the related certificate.

#### **4.9.10 Online Revocation checking Requirements**

Relying parties are responsible for checking the certificate status and CRL. Relying parties that fail to check the status of the certificate cannot legitimately rely on the certificate.

Digidentity supports an OCSP capability using the HTTP GET method for certificates as described in RFC6960 and RFC5019. OCSP Responders under Digidentity's control will respond to a request for the status of a certificate serial number that is "unused" with an "unknown" status.

#### **4.9.11 Other Forms of Revocation Advertisements available**

No stipulation

#### **4.9.12 Special Requirements related to Key Compromise**

Digidentity has implemented measures to notify relying parties if there is discovery or suspicion that a CA's private key has been compromised. For more information refer to section 4.9.1.

Revocation of a domain or a TSP certificate (or distrust in case of a root certificate) will be considered if the signing key belonging to the certificate is compromised or suspected to be compromised. Indicators of private key compromise may include:

- [a] Theft or loss of device holding a private key;
- [b] Audit findings indicating private key compromise;
- [c] Incidents reported by third parties which may indicate key compromise.

All indicators are registered, analysed, and followed up accordingly.

#### **4.9.13 Circumstances for Suspension**

Digidentity does not perform suspension of certificates.

#### **4.9.14 Who Can Request Suspension**

Digidentity does not perform suspension of certificates.

#### **4.9.15 Procedure for Suspension Request**

Digidentity does not perform suspension of certificates.

#### **4.9.16 Limits on Suspension Period**

Digidentity does not perform suspension of certificates.

### **4.10 Certificate Status Services**

#### **4.10.1 Operational Characteristics**

Digidentity makes certificate status information available on the CRL and via an OCSP responder. The serial number of a revoked certificate remains on the CRL until one additional CRL is published after the expiration date of the certificate. For Qualified certificates, the serial number of a revoked certificate remain on the CRL permanently.

#### **4.10.2 Service Availability**

Digidentity operates and maintains a CRL and OCSP with sufficient resources to provide a response time of ten seconds or less under normal operating conditions. Digidentity maintains an online 24 x 7 repository that application software can use to automatically check the current status of all unexpired certificates issued by the CA. Digidentity maintain a continuous 24x7 ability to respond internally to a high-priority Certificate Problem Report.

Digidentity aims to restore the service within four (4) hours in the event the service becomes unavailable.

#### **4.10.3 Optional Features**

No stipulation.

### **4.11 End of Subscription**

See General Terms & Conditions for information on ending a Subscription.

### **4.12 Key Escrow & Recovery**

Digidentity does not use key escrow and key recovery.

#### **4.12.1 Key escrow and recovery policy and practices**

No stipulation

#### **4.12.2 Session key encapsulation and recovery policy and practices**

No stipulation

## **5 Facility, Management & Operational Controls**

Digidentity has implemented and maintains an Information Security Management System (ISMS) which is certified against ISO27001:2013 and a Privacy Information Management System (PIMS) which is certified against ISO27701:2019 and subject to annual audit by an external auditor.

### **5.1 Physical Security Controls**

#### **5.1.1 Site Location & Construction**

All Digidentity's operations facilities are specifically designed for computer operations and have been customised to meet the security requirements that apply to Digidentity as a Certificate Authority. Relevant prevention and detection mechanisms are to address environmental incidents, such as power loss, loss of communication, water exposure, fire and temperature changes.

#### **5.1.2 Physical Access**

Access to Digidentity's facilities is restricted to authorised personnel only. Non-authorised personnel, including visitors, are only allowed to access the facilities under escort and continuous surveillance by authorised personnel. Controls have been implemented for physical access to the CA operations facilities.

Access to the Digidentity offices is controlled. Access is permitted to employees with an electronic key system. Visitors receive access on appointment only. All visitors are required to identify themselves with a legal identity document and register their arrival and departure from the offices.

Physical access to the data centre is limited to specific employees in specific roles. All access to the data centre is logged. Employees accessing the data centre are subjected to multi-factor authentication using ID card and a biometric authentication.

#### **5.1.3 Power and Air Conditions**

See section 5.1.1.

#### **5.1.4 Water Exposures**

See section 5.1.1.

#### **5.1.5 Fire Prevention and Protection**

See section 5.1.1.

#### **5.1.6 Media Storage**

See section 5.1.1.

#### **5.1.7 Waste Disposal**

See section 5.1.1.

#### **5.1.8 Off-Site Backup**

See section 5.1.1.



## 5.2 Procedural Controls

### 5.2.1 Trusted Roles

Digidentity has safeguards to ensure that operations are as secure as they can be. All employees at Digidentity are required to register for their own administrative account, details of accounts are never shared. The types of accounts assigned to users is dependent on their role.

The Trusted Roles within Digidentity are:

- \* Registration Authority Officers (RA): responsible for verifying information that is necessary for certificate issuance and approval of certification requests.
- \* Revocation Officers (RO): Responsible for operating certificate status changes.
- \* System Administrators (SA): Authorised to install, configure and maintain systems
- \* System Operators (SO): responsible for the day-to-day operation of systems. Authorised to perform backup and restore procedures.
- \* System Auditors (SAU): Authorised to view archives and audit logs of Digidentity systems for the purposes of auditing.
- \* Chief Security Officer (CSO): overall responsibility for maintenance and implementation of the security policies and practices.
- \* Data Protection Officer (DPO) - Responsible for the handling of all security incidents involving Person Data Breach/Leakage.

### 5.2.2 Number of Individuals required per task

Digidentity ensures that the number of staff available for tasks is adequate to meet demand, but also adequate to ensure that all security, risk and compliance regulation requirements are met.

Issuance of intermediate CA certificates by the Digidentity root CAs and maintenance operations involving CA private keys is under dual control by authorised, trusted personnel.

### 5.2.3 Identification & Authentication for Trusted Roles

Employees in Trusted Roles at Digidentity undergo background screening, and all employees are verified and authenticated, including face-to-face checks and identification checks based on government issued identity documents.

### 5.2.4 Roles requiring Separation of Duties

Digidentity has a comprehensive list of roles (see 5.2.1) and associated access rights. Privileges are assigned based on the tasks for the role, and a "need-to-know" and "least privilege" principle for access, rather than a default permission. Digidentity keeps a record of all access rights held by employees. Digidentity performs regular reviews on issued authorisations and privileges.

Personnel who have a specific trusted role will, in some circumstances, be unable to participate as a second trusted role e.g. System Auditors cannot have the joint role of System Operators.

## **5.3 Personnel Controls**

### **5.3.1 Qualifications, Experience, and Clearance Requirements**

For every role in Digidentity there is a written set of requirements. Any employee at Digidentity must meet the qualifications and experience requirements to fulfil the role. The background check results are stating that there are no objections to perform the role in the category/categories it was requested for.

### **5.3.2 Background Check Procedures**

Digidentity carries out background check procedure for all employees. These checks will consist of;

- \* Previous employment and references
- \* Qualifications
- \* Good conduct (requested by the individual for the purpose of employment at Digidentity and performed by a Dutch Government Judicial Service. Result is communicated to the individual).

### **5.3.3 Training Requirements and Procedures**

Digidentity provides all personnel performing information verification duties with skills-training that covers basic Public Key Infrastructure knowledge, authentication and vetting policies and procedures (including the CA's Certificate Policy and/or Certification Practice Statement), common threats to the information verification process (including phishing and other social engineering tactics), and the relevant Trust Service Provider and CA requirements.

Digidentity maintains records of such training and ensure that personnel entrusted with Validation Specialist duties maintain a skill level that enables them to perform such duties satisfactorily. Digidentity document that each Validation Specialist possesses the skills required by a task before allowing the Validation Specialist to perform that task. Digidentity requires all Validation Specialists to pass an examination provided by Digidentity on the information verification requirements outlined in this document.

Upon employment, all new employees follow a training plan. The training includes security awareness and other training related training associated with their specific function, which includes (where applicable) software, hardware, office procedures and security awareness.

### **5.3.4 Retraining Frequency and Requirements**

All employees are required to take regular security awareness training. Service Desk employees are required to participate in the annual validation specialist training.

### **5.3.5 Job Rotation Frequency and Sequence**

Digidentity does not use this method.

### **5.3.6 Sanctions for Unauthorized Actions**

Digidentity has a disciplinary procedure. In the event of unauthorised employee actions, the procedure will be followed. Disciplinary action can result in termination of employment and/or legal action where applicable.

### 5.3.7 Independent Contractor Controls

Digidentity employs contractors. Contractors employed in roles at Digidentity are background checked per the procedures used for direct personnel.

### 5.3.8 Documentation Supplied to Personnel

All employees are provided with a contract of employment, a defined job role, and a personnel handbook. Collectively these documents provide necessary information regarding role, rights, laws and procedures pertaining to employment at Digidentity.

## 5.4 Audit Logging Procedures

### 5.4.1 Types of Events Recorded

The logging system records the following types of events;

[1] Key Lifecycle Events;

- [a] Key generation, backup, storage, recovery, archival and destruction
- [b] Cryptographic device lifecycle management events

[2] Certificate Lifecycle Events;

- [a] Certificate requests and revocation
- [b] Verification activities
- [c] Date, time, phone numbers, contact persons, and verification of those
- [d] Acceptance and rejection of certificate requests
- [e] Issuance of certificates
- [f] Generation of CRLs and OCSPs

[3] Security Events;

- [a] Access attempts
- [b] System actions performed
- [c] Profile changes
- [d] System activity
- [e] Firewall and router activity
- [f] Entries to and from Digidentity controlled areas

All log entries provide the date and time, the identity of the person and a description of the event.

### 5.4.2 Frequency of Processing Audit Log

Daily backups are made of all data resulting from CA key lifecycle and certificate lifecycle management, including systems thereof.

### 5.4.3 Retention Period for Audit Logs

Logs associated with CA key lifecycle and certificate lifecycle management events are kept for seven (7) years, per the regulatory and legal requirements.

#### **5.4.4 Protection of Audit Logs**

All audit events recorded are digitally signed to ensure logs have not been tampered. The audit log data is available in a read-only format and subject to access restrictions.

#### **5.4.5 Audit Log Backup Procedures**

Digidentity performs daily backups.

#### **5.4.6 Audit Log Collection System (Internal vs. External)**

The internal Audit Logger records events as they pass through the system. Upon unavailability of the Audit Logger, dependent services stop functioning.

#### **5.4.7 Notifications to Event-Causing Subject**

Digidentity does not notify people of their actions creating an event.

#### **5.4.8 Vulnerability Assessments**

Digidentity performs an annual risk assessment to maintain the risk register. In case of significant changes, a risk assessment for the significant change must be performed.

Digidentity's systems are assessed via internal and external vulnerability scans and penetration tests. The tests are carried out per the schedule. Penetration tests are carried out by external contractors at least once per year. All foreseeable internal and external threats are assessed with the risk analysis of Digidentity at least once per year or in case of significant changes to the infrastructure or applications.

### **5.5 Records Archival**

#### **5.5.1 Types of Records Archived**

Digidentity archives the following types of records:

- |                                  |                        |
|----------------------------------|------------------------|
| * identity proofing data,        | * authentications,     |
| * certificate life cycle events, | * revocation,          |
| * authorisations,                | * face-to-face checks, |
| * configurations,                | * name,                |

#### **5.5.2 Retention Period for Archive**

All records are kept for a maximum of seven (7) years and then destroyed, as per regulatory and legal requirements.

#### **5.5.3 Protection of Archive**

Archive data associated with the key lifecycle management and certificate lifecycle processes are subject to access restrictions and controls. Data is only available in a read-only format. The archive data is encrypted and subject to access restrictions. Paper-based archives are subject to access restrictions and controls. Only authorised personnel have access to those areas.

#### **5.5.4 Archive Backup Procedures**

Digital archive data is automatically generated via the internal systems processes. Backups of systems are made daily and in accordance with the backup procedures and policies at Digidentity.

#### **5.5.5 Requirement for Time–Stamping of Records**

Digidentity CA time-stamps all records related to CA activities.

#### **5.5.6 Archive Collection System (Internal or External)**

The archive collection systems are in the Digidentity data centres. The data centres are described in Section 5.1.1).

#### **5.5.7 Procedures to Obtain & Verify Archive Information**

Archive data access is strictly limited. Only very specific authorised employees may access this system. Digidentity will further only release information from the archive upon a legal court order to do so.

### **5.6 Key Changeover**

Digidentity do not do key changeover for any of its issuing CA. Digidentity's PKIoverheid issuing CA expire on the same date as their respective root CA.

### **5.7 Compromise & Disaster Recovery**

Digidentity has a business continuity plan to ensure continuity when a disaster occurs. The aim of the plan is to ensure the orderly recovery of business operations, communication to subscribers and relying parties, and continuity of **Products** for the Subscriber affected. The business continuity plan is a confidential document and has been audited and approved by external auditors.

#### **5.7.1 Incident and Compromise Handling Procedures**

Digidentity has an Incident Response Plan and a Disaster Recovery Plan. Digidentity documents a business continuity and disaster recovery procedure designed to notify and reasonably protect Application Software Suppliers, Subscribers, and Relying Parties in the event of a disaster, security compromise, or business failure. Digidentity makes its business continuity plan and security plans available to auditors upon request. Digidentity annually tests, reviews, and updates these procedures.

#### **5.7.2 Recovery Procedures if Computing Resources, Software, and/or Data Are Corrupted**

No Stipulation

#### **5.7.3 Recovery Procedures After Key Compromise**

No Stipulation

#### **5.7.4 Business Continuity Capabilities after a Disaster**

No Stipulation

## 5.8 CA or RA Termination

Digidentity has a CA Termination plan in the event of a CA operation ends. This termination plan aims to manage the termination, while carrying out actions per regulatory and legal requirements. Digidentity has the necessary arrangements and agreements with third parties for continued operations and fulfilment of obligations in case of CA termination. Digidentity's CA Termination plan is confidential and has been audited by external auditors.

CPS PKIO @ Digidentity

## 6 Technical Controls

### 6.1 Key Pair Generation & Installation

#### 6.1.1 Key Pair Generation

##### 6.1.1.1 CA Key Pair Generation

Digidentity has a procedure key pair generation. Digidentity maintains a record of all key ceremony performed. All key ceremonies are audited by qualified external auditors conform the requirements. All attendees who have roles in the key ceremony are recorded. In addition, a sign-off is required for the documented key ceremony.

Digidentity does not perform key pair generation for the PKloverheid root CA.

All key generation takes place in a physically secured environment, using personnel in trusted roles, and within cryptographic modules in accordance with this CPS as described in chapter 5. All keys are generated conform the specified key lengths and algorithms as per ETSI TS 119 312.

##### 6.1.1.2 RA Key Pair Generation

No stipulation.

##### 6.1.1.3 Subscriber Key Pair Generation

Digidentity generates and stores the key pair for qualified, advanced and seals in the HSM. For server certificates, the Subscriber generates a new key pair for each certificate and is required to keep the private key secret as defined in the applicable Terms & Conditions.

Digidentity reject a certificate request if the requested Public Key does not meet the requirements set forth in Sections 6.1.5 and 6.1.6 or if it has a known weak Private Key (such as a Debian weak key, see <http://wiki.debian.org/SSLkeys>) or the Key Pair was previously generated by Digidentity.

#### 6.1.2 Private Key Delivery to Subscriber

See section 3.2.1.

#### 6.1.3 Public Key Delivery to Certificate Issuer

Public Keys for SSL/SBR certificates are delivered to Digidentity via the CSR, since they are generated by the applicant during the registration process and submitted via the online secure interface.

#### 6.1.4 CA Public Key Delivery to Relying Parties

The root CA of Digidentity for this CPS is Staat der Nederlanden, which means that the public key does not require delivery by Digidentity. Digidentity CA public keys of can be downloaded from the repository online: <https://cps.digidentity-pki.com/>.

### 6.1.5 Key sizes

All PKloverheid CAs makes use of 4.096 bits RSA keys. All PKloverheid Root Certificates and Subordinate CA are defined and configured by PKloverheid.

All Digidentity Subscriber Certificates makes use of 2.048 bits or 4.096 bits RSA keys.

### 6.1.6 Public Key Parameters Generation & Quality Checking

Digidentity employs several certificate validators (linters) where applicable. The (pre-)certificate issuance process will abort if a linter detects any non-conformities to the requirements.

#### ZLint

The ZLint linter verify compliance to X.509 RFCs and ETSI standards. Digidentity has implemented these linters for distinct issuance phases: pre-issuance and post-issuance of final certificates.

#### RSA Key Validator

The RSA Key Validator checks if the public key of the certificate has:

- \* Modulus is 2.048 or 4.096 bits,
- \* the value of the public exponent is an odd number equal to 3 or more;
- \* the public exponent is in the range between  $2^{16+1}$  and  $2^{256-1}$
- \* the modulus is an odd number, not the power of a prime, and have no factors smaller than 752
- \* Key passes a ROCA vulnerability test (recovery of Private Key from the Public Key)
- \* Key is not a Debian Weak Key (entropy check)

Digidentity has implemented the RSA Key Validator on issuance of all certificates.

#### Digidentity Linters

Digidentity has developed and implemented own linters to verify compliance to CPS. These linters are available for:

- \* **Generation** of PKloverheid Private Root certificates (PvE 3h)
- \* **Generation** of PKloverheid Qualified certificates (PvE 3a, 3b, 3c)

Digidentity has implemented these linters for pre-issuance of all Subscriber certificates, post-issuance of pre-certificates (if applicable) (SSL) and post-issuance of all final certificates.

### 6.1.7 Key Usage Purposes

Keys may be used in accordance with the certificate uses described in this CPS, for the signing of public keys and signing of the CRLs and OCSPs.



## **6.2 Private Key Protection & Cryptographic Module Engineering Controls**

### **6.2.1 Cryptographic Module Standards and Controls**

Digidentity uses certified Hardware Security Modules to store private keys for subscribers. Digidentity actively monitors the QSCD certification of the HSM to verify compliance and update systems in case certification will expire. The CA Private Keys are stored and protected by an HSM.

If the QSCD certification of the HSM is revoked before expiration, Digidentity will contact the manufacturer, the external auditor and supervisory body to determine the course of actions to resolve the issue.

### **6.2.2 Private Key (n out of m) Multi-person Control**

All physical access to the CA Private Key requires dual control.

### **6.2.3 Private Key Escrow**

Digidentity do not use escrow.

### **6.2.4 Private Key Backup**

Digidentity CAs' private keys are encrypted backed up by authorised personnel in trusted roles and under dual control. The backup of the CA Private Key is only activated and used within the CA operations facility.

### **6.2.5 Private Key Archival**

Digidentity archives CA private keys for a period of seven (7) years.

### **6.2.6 Private Key Transfer into or from a Cryptographic Module**

Digidentity does not do key transfer.

### **6.2.7 Private Key Storage on Cryptographic Module**

The CA Private Keys are stored and protected by an HSM where access control mechanisms ensure that the Private Key is not accessible outside the module. Our HSM are compliant to FIPS 140-2 level 3 and accepted under eIDAS article 51. Digidentity verifies that the secure cryptographic modules are functioning correctly at startup. Dual control is required for all physical access to cryptographic devices containing a copy of the CA Private Key.

### **6.2.8 Activating Private Keys**

Digidentity Private Keys are protected by and used within an HSM. The CA Private Key is only activated and used within the CA operations facility.

### **6.2.9 Deactivating Private Keys**

Digidentity do not deactivate private keys.

#### **6.2.10 Destroying Private Keys**

Private keys are destroyed when they are no longer required, or when the corresponding certificate expired or is revoked. On retirement of an HSM, all keys necessary to decrypt CA private signing keys are destroyed.

#### **6.2.11 Cryptographic Module Rating**

Digidentity maintains procedure that cover the secure lifecycle management (generation, backup, archival, destruction) of all cryptographic modules containing the CA Private Key. All cryptographic modules containing copies of the CA Private Key is physically protected under dual control.

All signing operations with the CA Private Key is performed in Digidentity's secure operations facility.

### **6.3 Other Aspects of Key Pair Management**

#### **6.3.1 Public Key Archival**

Public keys are registered and archived digitally. All public key material is archived for a mandatory requirement of seven (7) years once the key is expired. These archives are encrypted.

#### **6.3.2 Certificate Operational Periods & Key Pair Usage Periods**

Certificates are issued for a specific period, where the associated keys will only be valid for the same length of time. Once a certificate is revoked, the associated key pair is also deemed revoked.

- \* Digidentity BV PKloverheid Private Services CA – G1 is valid until 12 November 2028
  - \* Certificates are valid for three (3) years
- \* Digidentity BV PKloverheid Organisatie Persoon CA – G3 is valid until 12 November 2028
  - \* Certificates are valid for 365 days
- \* Digidentity BV PKloverheid Organisatie Services CA – 2021 is valid until 12 November 2028
  - \* Certificates are valid for 365 days
- \* Digidentity BV PKloverheid Burger CA – 2021 is valid until 12 November 2028
  - \* Certificates are valid for 365 days

### **6.4 Activation Data**

See section 3.2.

#### **6.4.1 Activation data generation and installation**

No stipulation.

#### **6.4.2 Activation data protection**

No stipulation.

#### **6.4.3 Other aspects of activation data**

No stipulation.

### **6.5 Computer Security Controls**

#### **6.5.1 Specific Computer Security Technical Requirements**

All computer equipment and systems are under strict security measures:

- \* Dual Control on all CA systems
- \* All systems that are capable of causing certificate issuance are adequately protected with multi-factor authentication or other technical controls
- \* Multifactor authentication for online portals/interfaces
- \* The use of encryption certificates (SSL/TLS) on all systems
- \* Separation of duties and use of trusted roles
- \* Use of x.509 certificates for all administrators

#### **6.5.2 Computer Security Rating**

All environments, including staging, pre-production and production are “live” under these security controls. Digidentity has a policy that only authorised personnel have access to systems under its control. Digidentity will never permit visitors to access its systems.

### **6.6 Life Cycle Technical Controls**

#### **6.6.1 System Development Controls**

All software development is carried out by Digidentity, by approved and screened Digidentity employees. The measures are strict so that Digidentity can meet the stringent legal and regulatory requirements.

Access to code and systems related to development is strictly limited to personnel approved to carry out their roles.

#### **6.6.2 Security Management Controls**

All operational systems and networks of Digidentity are monitored, managed and controlled to ensure their integrity and correct operation.

Digidentity has procedures and schedules for the systems and the related maintenance of them. The team responsible are required to carry out regular systems monitoring and checks. Additional to manual monitoring, it is also an automated process, where the relevant trusted personnel are alerted upon any activity which is out of the expected behaviour.

### 6.6.3 Life Cycle Security Controls

Digidentity ensures that all systems with respect to the registration service, certificate generation service, subject device provision service, dissemination service, revocation management service and revocation status service:

- \* have the latest security updates and;
- \* web application controls and filters all input from users;
- \* web application encodes the dynamic output and;
- \* web application maintains a safe session with the user and;
- \* web application uses a database in a secure manner.

### 6.7 Network Security Controls

Digidentity performs all technical actions, described in this document, using secure networking measures to prevent unauthorised and malicious activity. All access to systems is under the conditions of strict access controls. Digidentity protects data by using encryption and digital signatures. The controls are preventive, detective, repressive and corrective in nature. Controls include regular (at least monthly) vulnerability scans and (at least annually) a penetration test.

### 6.8 Time Stamping

Digidentity performs time-stamping using an external supplier.

## 7 Certificate, CRL & OCSP Profiles

Digidentity use only approved Certificate Profiles for the issuance of PKI certificates. This document describes the approved certificate profiles for all certificates issued from PKloverheid (PKIo) issuing CA. CA Hierarchy is documented in Section 1.1.2.

### 7.1 Certificate Profiles

Digidentity generates non-sequential certificate serial number using 128 bits resulting in serial numbers that have at least 64 bits of output.

#### 7.1.1 Version Number(s)

All certificates are of type X.509 v3.

#### 7.1.2 Certificate Content & Extensions

All Root Certificates and Subordinate Certificates are defined and configured by PKloverheid.

All Subscriber Certificates are configured per eIDAS and/or ETSI EN 319 411-1/ 411-2.

All other fields and extensions in the certificates are set in accordance with RFC 5280.

#### 7.1.3 Algorithm Object Identifiers

Digidentity uses RSA encryption with SHA-2 algorithm. All Certificates are configured per eIDAS and/or ETSI EN 319 411-1/411-2.

#### 7.1.4 Name Forms

See Certificates Profiles in section 7.1.10.

#### 7.1.5 Name Constraints

Deleted

#### 7.1.6 Certificate Policy Object Identifier

All policy object identifiers are described in section 1.2

Root certificates are defined and configured by Policy Authority PKloverheid.

#### 7.1.7 Usage of Policy Constraints Extension

No stipulation.

#### 7.1.8 Policy Qualifiers Syntax and Semantics

No stipulation.

#### 7.1.9 Processing Semantics for the Critical Certificate Policies Extension

No stipulation.

## 7.1.10 Certificate Tables

### 7.1.10.1 PKIoverheid Private Services CA – G1

Certificate Profile CA managed by PKIoverheid.

#### Server – PKIoverheid Private Services CA – G1 (Subscriber Certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		< date of issuance >		Required
NotValidAfter		< +3 years >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Private Services CA – G1		Required
organizationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=SBR Digiport		Required
organizationName	(2.5.4.10)	O=<Organisation Name>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
serialNumber	(2.5.4.5)	SERIALNUMBER=<OIN or KVK filled out>		Optional
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2.048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	digitalSignature, keyEncipherment	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-serverAuth (1.3.6.1.5.5.7.3.1) id-kp-clientAuth (1.3.6.1.5.5.7.3.2)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.8.6 (server) QualifierID1=1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Method#2: 1.3.6.1.5.5.7.48.1 (ocsp) Contains CA Issuers URL and OCSP URL. URLs vary based on Issuing CA.	No	Optional
subjectAltName	(2.5.29.17) {id-ce 17}	<Permanent Identifier: UUID, TSP-OID>	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required

## 7.1.10.2 PKIoverheid Organisatie Persoon CA – G3

Certificate Profile CA managed by PKIoverheid.

### Registered Profession Authentication – G3 (Subscriber certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance>		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Organisatie Persoon CA – G3		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<Full Name as displayed on identity document>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
givenName	(2.5.4.42)	GN=<Given names as displayed on identity document>		Required
surname	(2.5.4.4)	SN=<Surname as displayed on identity document>		Required
serialNumber	(2.5.4.5)	SERIALNUMBER=<Virtual Smart Card Identifier>		Required
organizationName	(2.5.4.10)	O=<Identical to CommonName>		Required
title	(2.5.4.12)	TITLE=<Recognised Profession>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2.048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	digitalSignature	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-clientAuth (1.3.6.1.5.5.7.3.2) id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_KP_DOCUMENT_SIGNING (1.3.6.1.4.1.311.10.3.12)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.5.1 (authentication) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-OID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required

## Registered Profession Encryption – G3 (Subscriber certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance>		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Organisatie Persoon CA – G3		Required
organizationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<Full Name as displayed on identity document>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
givenName	(2.5.4.42)	GN=<Given names as displayed on identity document>		Required
surname	(2.5.4.4)	SN=<Surname as displayed on identity document>		Required
serialNumber	(2.5.4.5)	SERIALNUMBER=<Virtual Smart Card Identifier>		Required
organizationName	(2.5.4.10)	O=<Identical to CommonName>		Required
title	(2.5.4.12)	TITLE=<Recognised Profession>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2.048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	dataEncipherment, keyEncipherment	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_EFS_CRYPT0 (1.3.6.1.4.1.311.10.3.4)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.5.3 (encryption) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-OID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required



## Registered Profession Non-Repudiation – G3 (Subscriber certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance>		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Organisatie Persoon CA – G3		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<Full Name as displayed on identity document>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
givenName	(2.5.4.42)	GN=<Given names as displayed on identity document>		Required
surname	(2.5.4.4)	SN=<Surname as displayed on identity document>		Required
serialNumber	(2.5.4.5)	SERIALNUMBER=<Virtual Smart Card Identifier>		Required
organizationName	(2.5.4.10)	O=<Identical to CommonName>		Required
title	(2.5.4.12)	TITLE=<Recognised Profession>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2.048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	nonRepudiation	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_KP_DOCUMENT_SIGNING (1.3.6.1.4.1.311.10.3.12)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.5.2 (non-repudiation) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unnotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-OID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required
<b>qcStatements</b>				
esi4-qcStatement-1	id-etsi-qcs-1	id-etsi-qcs-QcCompliance (0.4.0.1862.1.1)		Required
esi4-qcStatement-4	id-etsi-qcs-4	id-etsi-qcs-QcSSCD (0.4.0.1862.1.4)		Required
esi4-qcStatement-5	id-etsi-qcs-5	id-etsi-qcs-QcPDS (0.4.0.1862.1.5) URL= https://cps.digidentity-pki.com Language = EN		Required
esi4-qcStatement-6	id-etsi-qcs-6	id-etsi-qct-esign {id-etsi-qcs-QcType 1} (0.4.0.1862.1.6)		Required

### 7.1.10.3 Digidentity BV PKIoverheid Organisatie Services CA – 2021

Certificate Profile CA managed by PKIoverheid.

#### Authentication – PKIoverheid BV Organisatie Services CA – 2021 (Subscriber Certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance>		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Organisatie Services CA – 2021		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<name commonly used by subject to represent itself>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
organizationIdentifier	(2.5.4.97)	NTRNL-<Chamber of Commerce Number>		Required
organizationName	(2.5.4.10)	O=<Identical to CommonName>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2.048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	digitalSignature	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-clientAuth (1.3.6.1.5.5.7.3.2) id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_KP_DOCUMENT_SIGNING (1.3.6.1.4.1.311.10.3.12)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.5.4 (authentication/NCP+) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-0ID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required
<b>qcStatements</b>				
qcStatement-2		id-etsi-qcs-semantics-identifiers 2 (0.4.0.194121.1.2)		Required

## Encryption – PKIoverheid BV Organisatie Services CA – 2021 (Subscriber Certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance>		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Organisatie Services CA – 2021		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<name commonly used by subject to represent itself>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
organizationIdentifier	(2.5.4.97)	NTRNL-<Chamber of Commerce Number>		Required
organizationName	(2.5.4.10)	O=<Identical to CommonName>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2.048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	keyEncipherment, dataEncipherment	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_EFS_CRYPT0 (1.3.6.1.4.1.311.10.3.4)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.5.5 (encryption/NCP+) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-0ID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required
<b>qcStatements</b>				
qcStatement-2		id-etsi-qcs-semantics-identifiers 2 (0.4.0.194121.1.2)		Required

## Non-Repudiation – PKIoverheid BV Organisatie Services CA – 2021 (Subscriber Certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance>		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Organisatie Services CA – 2021		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<name commonly used by subject to represent itself>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
organizationIdentifier	(2.5.4.97)	NTRNL-<Chamber of Commerce Number>		Required
organizationName	(2.5.4.10)	O=<Identical to CommonName>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2.048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	nonRepudiation	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_KP_DOCUMENT_SIGNING (1.3.6.1.4.1.311.10.3.12)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.5.7 (non-repudiation/QCP-n-qscd) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-0ID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required
<b>qcStatement</b>				
esi4-qcStatement-1	id-etsi-qcs-1	id-etsi-qcs-QcCompliance (0.4.0.1862.1.1)		Required
esi4-qcStatement-4	id-etsi-qcs-4	id-etsi-qcs-QcSSCD (0.4.0.1862.1.4)		Required
esi4-qcStatement-5	id-etsi-qcs-5	id-etsi-qcs-QcPDS (0.4.0.1862.1.5) URL= URL=https://cps.digidentity-pki.com Language = EN		Required
esi4-qcStatement-6	id-etsi-qcs-6	id-etsi-qcs-eseal {id-etsi-qcs-QcType 2} (0.4.0.1862.1.6.2)		Required
qcStatement-2		id-etsi-qcs-semantics-identifiers 2 (0.4.0.194121.1.2)		Required

#### 7.1.10.4 Digidentity BV PKIoverheid Burger CA – 2021

Certificate Profile CA managed by PKIoverheid.

##### Authentication – PKIoverheid BV Burger CA – 2021 (Subscriber Certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance >		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Burger CA – 2021		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<Given Names and Surname as registered on ID>		Required
serialNumber	(2.5.4.5)	SERIALNUMBER=<Virtual Smart Card Identifier>		Required
givenName	(2.5.4.42)	GN=<Given names as displayed on ID>		Required
surname	(2.5.4.4)	SN=<Surname as displayed on ID>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2.048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	digitalSignature	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-clientAuth (1.3.6.1.5.5.7.3.2) id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_KP_DOCUMENT_SIGNING (1.3.6.1.4.1.311.10.3.12)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.3.1 (authentication/NCP+) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-OID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required

## Encryption – PKIoverheid BV Burger CA – 2021 (Subscriber Certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance >		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Burger CA – 2021		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<Given Names and Surname as registered on ID>		Required
serialNumber	(2.5.4.5)	SERIALNUMBER=<Virtual Smart Card Identifier>		Required
givenName	(2.5.4.42)	GN=<Given names as displayed on ID>		Required
surname	(2.5.4.4)	SN=<Surname as displayed on ID>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2,048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	keyEncipherment, dataEncipherment	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_EFS_CRYPT0 (1.3.6.1.4.1.311.10.3.4)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.3.3 (encryption/NCP+) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-OID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required

## Non-Repudiation – PKIoverheid BV Burger CA – 2021 (Subscriber Certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance >		Required
NotValidAfter		< +365 days >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Burger CA – 2021		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<Given Names and Surname as registered on ID>		Required
serialNumber	(2.5.4.5)	SERIALNUMBER=<Virtual Smart Card Identifier>		Required
givenName	(2.5.4.42)	GN=<Given names as displayed on ID>		Required
surname	(2.5.4.4)	SN=<Surname as displayed on ID>		Required
countryName	(2.5.4.6) {id-at-6}	C=<Two letter Country Code e.g. NL>		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		2,048 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	nonRepudiation	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-emailProtection (1.3.6.1.5.5.7.3.4) szOID_KP_DOCUMENT_SIGNING (1.3.6.1.4.1.311.10.3.12)	No	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.3.2 (non-repudiation/NCP+) QualifierID1: 1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectAltName	(2.5.29.17) {id-ce 17}	SAN= <Permanent Identifier: UUID, TSP-OID>	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
authorityInfoAccess	{id-pe 1}	Method#1: 1.3.6.1.5.5.7.48.2 (caIssuers) Contains CA Issuers URL. URLs vary based on Issuing CA.	No	Required
cRLDistributionPoints	(2.5.29.31) {id-ce 31}	Contains a CRL URL. URL varies based on Issuing CA.	No	Required
<b>qcStatement</b>				
esi4-qcStatement-1	id-etsi-qcs-1	id-etsi-qcs-QcCompliance (0.4.0.1862.1.1)		Required
esi4-qcStatement-4	id-etsi-qcs-4	id-etsi-qcs-QcSSCD (0.4.0.1862.1.4)		Required
esi4-qcStatement-5	id-etsi-qcs-5	id-etsi-qcs-QcPDS (0.4.0.1862.1.5) URL= URL=https://cps.digidentity-pki.com Language = EN		Required
esi4-qcStatement-6	id-etsi-qcs-6	id-etsi-qct-esign {id-etsi-qcs-QcType 1} (0.4.0.1862.1.6.1)		Required

## 7.2 CRL Profile

### 7.2.1 Version Number(s)

All CRL certificates are of type X.509 v2.

### 7.2.2 CRL & CRL entry extensions

Any revocation of a CRL entry for a Root CA and Subordinate CA Certificate, is performed by Policy Authority PKloverheid.

### 7.2.3 G3 CRL Profiles

Field	OID	Value	Critical	Type
Version		x.509 version 2		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=<Issuer CA Name>		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Extensions</b>				
ThisUpdate		Issue date and time of this CRL		Required
NextUpdate		< +24 hours >		Required
revokedCertificates		Provides the status e.g. revoked		Required
CRLNumber		Provides the sequential order of the published CRLs		Required
reasonCode	(2.5.29.21) {id-ce 21}	Provides a reason for revocation		Optional

## 7.3 OCSP Profile

The OCSP responses and OCSP signing certificates fulfil the requirements laid down in IETF RFC 6960. OCSP signing certificates are compliant with the X.509v3 standard for public key certificates. Any OCSP responses for a Root CA and Subordinate CA Certificate, is performed by Policy Authority PKloverheid.

### 7.3.1 Version number(s)

All certificates are of type X.509 v3.

### 7.3.2 OCSP extensions

Any OCSP responses for a Root CA and Subordinate CA Certificate, is performed by Policy Authority PKloverheid.



### 7.3.3 PKIoverheid Private Services CA – G1 (OCSP Signing certificate)

Field	OID	Value	Critical	Type
Version		x.509 version 3		Required
SerialNumber	2.5.4.5	Automatically created unique number		Required
SignatureAlgorithm	1.2.840.113549.1.1.11	sha256WithRSAEncryption		Required
<b>Validity</b>				
NotValidBefore		<date of issuance>		Required
NotValidAfter		< +2 years >		Required
<b>Issuer DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Private Services CA – G1		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
organizationIdentifier	(2.5.4.97)	NTRNL-27322631		Required
<b>Subject DN</b>				
commonName	(2.5.4.3) {id-at-3}	CN=Digidentity BV PKIoverheid Private Services CA – G1 OCSP		Required
organisationName	(2.5.4.10)	O=Digidentity B.V.		Required
countryName	(2.5.4.6) {id-at-6}	C=NL		Required
<b>Public Key</b>				
algorithm	(1.2.840.113549.1.1.1)	sha256WithRSAEncryption		Required
keySize		4.096 bits		Required
signature		512 bits		Required
<b>Extensions</b>				
keyUsage	(2.5.29.15) {id-ce 15}	digitalSignature	Yes	Required
extKeyUsage	(2.5.29.37) {id-ce 37}	id-kp-OCSP-signing (1.3.6.1.5.5.7.3.9)	Yes	Required
certificatePolicies	(2.5.29.32) {id-ce 32}	PolicyID1=2.16.528.1.1003.1.2.8.6 (server) QualifierID1=1.3.6.1.5.5.7.2.2 (id-qt-unotice) UserNotice=For the use of this certificate the associated CPS applies. QualifierID2: 1.3.6.1.5.5.7.2.1 (id-qt-cps) URL=https://cps.digidentity-pki.com	No	Required
subjectKeyIdentifier	(2.5.29.14) {id-ce 14}	160-bit SHA-1 hash	No	Required
authorityKeyIdentifier	(2.5.29.35) {id-ce 35}	160-bit SHA-1 hash	No	Required
ocspNoRevocationCheck		1.3.6.1.5.5.7.48.1.5 (id-pkix-ocsp-nocheck)	No	Required

## 8 Compliance Audit & Other Assessments

Digidentity is a Qualified Trust Service Provider (QTSP) as defined in EU Regulation 910/2014 also known as eIDAS. As a QTSP within PKIoverheid, Digidentity must comply to the applicable requirements from Dutch government defined in the Program of Requirements (PvE). Digidentity is compliant to the applicable requirements of the following standards, requirements and regulations:

- \* ISO27001:2013 Information Security Management System (ISMS)
- \* ISO27701:2019 Privacy Information Management System (PIMS)
- \* ISO27017:2015 Information Security in the Cloud
- \* ISO27018:2019 Securing Personal Data in the. Cloud
- \* ISO9001:2015 Quality Management System (QMS)
- \* ETSI EN 319 401 General Policy Requirements for Trust Service Providers
- \* ETSI EN 319 411-1 Electronic Signatures and Infrastructures (ESI) - Policy and security requirements for Trust Service Providers issuing certificates – Part 1: General requirements
- \* ETSI EN 319 411-2 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
- \* ETSI TS 119 461 Electronic Signatures and Infrastructures (ESI) - Policy and security requirements for trust service components providing identity proofing of trust service subjects
- \* eIDAS Regulation (EU) N 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC, Chapter III – Trust Services
- \* GDPR Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)
- \* CA/Browser Forum Network and Certificate System Security Requirements
- \* PKIoverheid Programma van Eisen (PvE)
  - \* PvE Part 3 General requirements
  - \* PvE Part 3 Additional requirements
  - \* PvE Part 3a Organisatie (G2) & Organisatie Persoon (G3)
  - \* PvE Part 3b Certificate Policy – Organisatie Services (G3)
  - \* PvE Part 3c Certificate Policy – Domein Burger
  - \* PvE Part 3h Certificate Policy Server Certificaten – Domein Private Services
- \* UK Trust Framework UK Digital Identity and Attributes Trust Framework



## 8.1 Frequency or Circumstances of Assessment

Digidentity is under supervision and inspected by the Dutch Authority for Digital Infrastructure (RDI) for compliance with the EU Regulation on electronic signatures No. 910/2014 eIDAS.

Digidentity is certified against the ETSI EN 319 401, ETSI EN 319 411-1, ETSI EN 319 411-2, eIDAS, ISO27001:2013, ISO27701:2019, ISO27017:2015 ISO27018:2019 and ISO9001:2015 standards and audited annually by an independent auditor.

## 8.2 Identity/Qualifications of Assessor

Digidentity is annually audited by BSI Group The Netherlands for the ETSI and ISO certifications to assess compliance with national laws, regulations and standards mentioned. BSI Group The Netherlands is accredited by RvA (Dutch Accreditation Body) for assessments under ISO17021, ISO17065 and the requirements defined in ETSI EN 319 403. BSI Group The Netherlands is bound by law, government regulation, or professional code of ethics.

Digidentity is audited annually by DNV on compliance to ISO9001:2015. DNV is accredited by RvA (Dutch Accreditation Body) for assessment under ISO17021.

Digidentity is audited annually on compliance to the Trust Framework requirements by DISC from Age Check Certification Scheme from the UK. DISC from Age Check Certification Scheme is accredited by UKAS (UK Accreditation Service) for assessment under ISO17065.

## 8.3 Assessor's Relationship to Assessed Entity

External auditors are independent and have no business interests in Digidentity. No external auditor has any business affiliation with Digidentity.

## 8.4 Topics Covered by Assessment

The scope of the audit covers all requirements from the standards with subjects;

- |                                    |                                  |
|------------------------------------|----------------------------------|
| * Registration Service             | * Network Security               |
| * Certificate Generation Service   | * Logical and Physical Access    |
| * Revocation Management Service    | * Logging and Monitoring         |
| * Revocation Status Service        | * Compliance                     |
| * Dissemination Service            | * Human Resource Security        |
| * Subject Device Provision Service | * Business Continuity Management |
| * Risk Management                  | * Remote Identification          |

## 8.5 Actions Taken as a Result of Deficiency

In case the auditor registers a nonconformity during the audit, Digidentity addresses the nonconformity in a Corrective Action Plan (CAP). In the CAP the actions and planning are documented to resolve the nonconformity within 90 days.

## 8.6 Communication of Results

All Conformity Assessment Reports are available in the repository <https://cps.digidentity-pki.com/>.

## 8.7 Self-Audits

Digidentity carries out regular internal audits to continuously assess compliance with the laws, regulations, internal policies, and requirements mentioned in this document.

All other internal audits are carried out at least once a year for high-risk processes and at least once every two years for low-risk processes and per an approved and externally audited schedule.

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## 9 Other Business & Legal Matters

### 9.1 Fees

#### 9.1.1 Certificate Issuance or Renewal Fees

All fees are published on the Digidentity website (<https://www.digidentity.eu>), on pages for the relevant Products.

#### 9.1.2 Certificate Access Fees

There are no certificate access fees.

#### 9.1.3 Revocation or Status Information Access Fees

There are no revocation or status information access fees.

#### 9.1.4 Fees for Other Services

Products described in this CPS may be subject to face-to-face checks, where the identity of the applicant is checked in person, along with the identity document. For this service Digidentity charges a fee. Fees related to the face-to-face checks are available online.

Once the relevant certificate has been issued the subscriber will receive a request for payment.

Digidentity can provide additional Products to subscribers for a consultancy fee. Digidentity will provide a quote for any Products requested by subscribers before any consultancy is carried out.

In cases where it has been necessary to repeatedly replace certificates due to the fault of the subscriber, Digidentity reserves the right to charge an administration fee at their discretion. The administration fee will be proportionate to the amount of work/costs to issue repeated replacement certificates.

#### 9.1.5 Refund Policy

Digidentity does not refund paid invoices.

## 9.2 Financial Responsibility

### 9.2.1 Insurance Coverage

Digidentity has an appropriate liability insurance policy which provides coverage of at least €1.000.000. Provisions concerning liability can be found in the General Terms & Conditions (also: "Terms") of Digidentity, which form an integral part of any contractual agreement between the subscriber and Digidentity.

### 9.2.2 Other Assets

No Stipulation

### 9.2.3 Insurance or Warranty Coverage for End-Entities

No Stipulation

## **9.3 Confidentiality of Business Information**

### **9.3.1 Scope of confidential information**

All business information, which is not released for public view, is confidential. This applies to all information which is exchanged and communicated in procedures and processes with participants.

### **9.3.2 Information Not within the scope of confidential information**

Information which is available for public view, including information on the Digidentity website, the information and documentation in the repository online and other publicly available information is outside the scope of confidential information.

### **9.3.3 Responsibility to protect confidential information**

Digidentity and all participants described in this CPS have a responsibility to protect confidential information.

## **9.4 Protection of Personal Data**

### **9.4.1 Privacy Plan**

Digidentity is fully compliant with EU laws and Regulations currently in force for the protection of personal data. Digidentity undergoes regular internal and external audits to verify its privacy compliance.

More information about the processing, and protection of personal data by Digidentity can be found in our Privacy Statement (<https://www.digidentity.eu/en/documentation/>)

### **9.4.2 Information Treated as Private**

Digidentity treats all personal data as private, meaning that Digidentity only processes personal data in accordance with applicable privacy law and its Privacy Statement.

### **9.4.3 Information Not Deemed Private**

Information which is not confidential information (as defined in section 9.3.1 above) and not personal data (as defined in accordance with the Privacy Statement and applicable law) is not deemed private. All personal data will be handled in accordance with applicable data protection laws.

### **9.4.4 Responsibility to protect private information**

Digidentity will not publish, disclose or otherwise make personal data available for unauthorised view/use. Digidentity has implemented appropriate technical and organizational security measures to protect personal data.

### **9.4.5 Notice and consent to use private information**

During the registration process all applicants are provided with the applicable Terms, the Privacy Statement and any contractual terms associated with products provided by Digidentity. The use of personal data is based on execution of a contract, or another valid legal basis, in accordance with the Privacy Statement and applicable law.

#### **9.4.6 Disclosure pursuant to judicial or administrative process**

Digidentity will fulfil the requirements to supply data for forensic purposes as required by law enforcement and for the judicial process, per the legal administrative procedures. Digidentity has the right to inform the relevant authorities of fraudulent or other criminal activity, in accordance with Digidentity's Terms.

#### **9.4.7 Other information disclosure circumstances**

There are no other information disclosure circumstances.

### **9.5 Intellectual Property Rights**

Any intellectual property rights associated with products and services supplied by Digidentity, and associated materials, remain the property of Digidentity, the licensor or supplier. All information regarding conditions pertaining to intellectual property rights can be found in the associated Terms and any contractual agreements with Digidentity.

### **9.6 Representation & Warranties**

#### **9.6.1 CA Representations & Warranties**

Upon the issuance of a certificate Digidentity make the following warranties that;

- [a]** at the time of issuance Digidentity has followed the procedures in this CPS and verified that the subject authorised the issuance of the certificate, and that the applicant representative of the subject was authorised to request the certificate.
- [b]** at the time of issuance Digidentity has followed the procedures in this CPS to verify the accuracy of the information provided by the applicant.
- [c]** at the time of issuance Digidentity has followed the procedures in this CPS to reduce the likelihood that the information contained in the certificate is misleading.
- [d]** Digidentity has followed the procedures in this CPS to verify the identity of any applicant for a certificate.
- [e]** Digidentity and the subscriber have a legally enforceable subscriber agreement, and that Digidentity's General Terms & Conditions have been provided to the subscriber so that these apply to the agreement.
- [f]** Digidentity maintains a 24 x 7 publicly accessible repository available for checking certificate status.
- [g]** Digidentity will revoke a certificate for reasons already described in this CPS.
- [h]** Digidentity, as the issuing CA for Root Staat der Nederlanden certificates takes no other responsibilities which are for the Root CA.

PKlooverheid can impose restrictions on the use of Non-Repudiation Certificates, as long as those restrictions are clear to the third party. Digidentity is not liable for the consequences of using a Non-Repudiation certificate that violate these restrictions.

#### **9.6.2 RA Representations & Warranties**

Digidentity operate the RA functions or uses delegates RA functions. Please refer to 9.6.1.

### 9.6.3 Subscriber Representations & Warranties

Subscriber represents and warrants:

- [a] that all information and documents provided by the subscriber are accurate and authentic to the best of the subscriber's knowledge;
- [b] that any certificates issued to the subscriber will be used solely in accordance with this CPS and applicable law, and will never be used to violate applicable law or the rights of any other party;
- [c] to take all reasonable measures to assure control of, keep confidential, and protect the private key which corresponds to the public key of the issued certificate. As a personal subscriber, you ensure the private key is under your sole control. As an organisational subscriber (legal subscriber) you ensure the private key is under the control of the organisation.

Additionally, in case of application and use of a Qualified Certificate for a Legal Person (Seal), the Subscriber represents and warrants:

- [d] All Subscribers and Company Administrators must be identified according to the requirements applicable for qualified certificates.
- [e] Subscriber acknowledges that its Users and Company Administrators have the authority to use and apply EU Qualified Electronic Seals to documents on behalf of Subscriber.
- [f] The Subscriber acknowledges full responsibility for use and control of the Seal during the subscription period. This includes ensuring authorised use and management of the Seal by (appointed) authorised representatives, control of documents.
- [g] If applicable, Subscriber acknowledges full responsibility for corresponding document hashes sent to Digidentity, and implementation of any necessary security measures, and any delegated usage or management of the Seal by third parties.
- [h] Subscriber implements internal control mechanisms to ensure that only Subscribers' authorised Users and Company Administrators can use the Seal.
- [i] The Subscriber shall maintain and is required to be able to demonstrate up to date (internal) access control systems during the entirety of the subscription period. This also applies to third parties that manage and/or use the Seal on behalf of Subscriber.
- [j] The Subscriber shall provide and maintain fair, current, accurate and complete information on authorised representatives and/or Users who have the authority to manage and apply EU Qualified Electronic Seals to documents on behalf of Subscriber. This also applies to authorised representative(s) and/or Users belonging to a third party.
- [k] The Subscriber shall ensure that all persons authorised to manage and apply EU Qualified Electronic Seals on behalf of the Subscriber are and remain fully aware of their role and corresponding responsibilities and are able to perform their role in line with any obligations stipulated in this CPS.
- [l] The Subscriber expressly acknowledges and agrees to carry full liability for any damage or loss that may be caused by the provision by the Subscriber of outdated, incomplete, or otherwise incorrect, misleading, or deceptive information and/or documents to Digidentity, or by assigning representatives to manage and use the Seal without the necessary capacity or formal authorisation, or by violation of any other obligations stipulated in this CPS that are related to the Seal. This includes any acts or omissions by appointed authorised representatives or third parties who manage or use the Seal on behalf of the Subscriber.



Additionally, in case of application and use of a Qualified Certificate for a Legal Person (Seal) in automatic signing configuration, the Subscriber represents and warrants:

- [m] The Subscriber acknowledges that it may only provide hashes of documents to Digidentity. This also applies to any transactions facilitated by third parties.
- [n] The Subscriber must inform Digidentity if a third-party service provider is involved in the management or usage of the Seal.
- [o] The Subscriber must formally authorise any third parties acting on behalf of the Subscriber in matters related to management or usage of the Seal.
- [p] Upon request by Digidentity, the Subscriber must be able to provide clear demonstrable evidence of formal authorisation(s) provided to third parties.

#### **9.6.4 Relying Party Representations & Warranties**

No stipulation

#### **9.6.5 Representations and Warranties of Other Participants**

No stipulation

### **9.7 Disclaimers of Warranties**

Digidentity provides no warranties concerning certificates other than the warranties which have been explicitly provided under 9.6.1 above. Any implied warranties, including merchantability and fitness for a particular purpose, are explicitly disclaimed to the extent permitted under applicable law.

### **9.8 Limitations of Liability**

Digidentity's liability is limited as set forth in Digidentity's Terms.

Digidentity will in no way be liable for any loss concerning or arising from one (or more) of the following circumstances or causes:

- \* If the Certificate, held by the claimant, has not been used in accordance with the certificate usage described in section 1.4;
- \* If the Certificate, held by the claimant or otherwise subject of any claim, has expired or been revoked before the date of the claim;
- \* If the private key, which corresponds to the Certificate, held by the claimant or otherwise subject to any claim, is compromised;
- \* Novel computer hardware or software, or mathematical algorithms can be used to break or circumvent the encryption or other safety measures used to ensure the validity of certificates insofar as such encryption and measures are commonly deemed appropriate in accordance with industry practices.

### **9.9 Indemnities**

#### **9.9.1 Indemnification by CAs**

No stipulation.

### **9.9.2 Indemnification by Subscribers**

The subscriber shall indemnify and hold harmless Digidentity from and against any damages, claims or other negative consequences which may arise as a result of a breach of the subscriber's warranties in accordance with 9.6.3 above.

### **9.9.3 Indemnification by Relying Parties**

No stipulation

## **9.10 Term & Termination**

### **9.10.1 Term**

This CPS applies for as long as any certificate issued by Digidentity under this CPS remains valid.

### **9.10.2 Termination**

This CPS is valid until a new version takes its place in the Digidentity repository. This CPS will remain applicable to the services of Digidentity which have the Root certificate "Staat der Nederlanden" if services are still offered by Digidentity. If Digidentity cease to issue certificates with Root Staat der Nederlanden, this document will cease to be relevant.

### **9.10.3 Effect of termination and survival**

The provisions within this CPS terminate in the event of termination by Digidentity of its provision of PKI-overheid certificates.

## **9.11 Individual Notices & Communications with Participants**

Digidentity provides notifications to participants in the following ways;

- \* Website: Notifications and announcements.
- \* E-mails: Sent to the Subscriber's confirmed e-mail address.
- \* Telephone calls: Made to the Subscriber's confirmed telephone number.
- \* Self Service Portal: notifications and announcements
- \* Account page: notifications and announcements

## **9.12 Amendments**

### **9.12.1 Procedure for Amendment**

Digidentity has the right to amend or supplement this document. Digidentity will review and update this document when;

- [a] The scheduled yearly review is performed;
- [b] There are changes to the process, procedures or policy described in this document;
- [c] There are changes to the law, regulations or requirements;
- [d] There are changes to the business interests of Digidentity and changes are required.
- [e] Any changes which are not noted in the document history are grammatical, typographical or format changes which do not impact the underlying information pertaining to processes, procedures and policy.

### **9.12.2 Notification Mechanism and Period**

When this CPS is modified, the new version will be published on Digidentity's website (<https://www.digidentity.eu/en/documentation/>).

Subscribers can comment on the content of this CPS, however, Digidentity reserves the right to decide whether to implement any changes in response to such comments. All changes will be carried out per the change release management process, where final approval is provided by management.

Digidentity has an obligation to inform the PA if there are any changes to be made to the hierarchical structure of Digidentity CAs.

Digidentity will announce any changes to this document. The CPS is published at least seven (7) days prior to the date of validity.

### **9.12.3 Circumstances under which OID must be changed**

No stipulation.

### **9.13 Dispute Resolution Provisions**

Digidentity has a complaint procedure published on the website, which is available via: <https://www.digidentity.eu/en/documentation/>.

Complaints will be handled with by Digidentity per the described procedure. Complaints can be handled via e-mail: [info@digidentity.com](mailto:info@digidentity.com), via the website chat facility and via telephone. All contact details are available on the website.

### **9.14 Governing Law**

The Agreement is governed by the laws of the Netherlands. Any provisions within these laws that may lead to the applicability of any other legal system or laws will not be applied.

### **9.15 Compliance with Applicable Law**

Digidentity complies with all applicable laws, regulations and requirements for the provision of products and services described in this document. Compliance includes, but is not limited to, hardware, software, systems, business information, data processes and all related undertakings during the daily operations of business practices.

## **9.16 Miscellaneous Provisions**

### **9.16.1 Entire Agreement**

No stipulation.

### **9.16.2 Assignment**

No stipulation.

### **9.16.3 Severability**

No stipulation.

### **9.16.4 Enforcement**

No stipulation.

### **9.16.5 Force Majeure**

No stipulation

## **9.17 Other Provisions**

No stipulation

## Appendix A – Definitions & Abbreviations

Term	Description
Applicant	New customer that applies for a certificate.
CA	Certificate Authority - within a PKI area the delivery and control of certificates.
CC	Common Criteria
Certificate Holder	the entity stated in the subject field of the certificate, and the holder of the private key. Holders of personal certificates are natural persons. Holders of server certificates are organisations or natural persons.
CP	Certificate Policy
CRL	Certificate Revocation List
Cryptographic Key	A string of bits used by a cryptographic algorithm to transform plain text into cipher text or vice versa. This key remains private and ensures secure communication. A cryptographic key is the core part of cryptographic operations.
CSP	Certificate Service Provider
CSR	Certificate Signing Request - a request by a PKI user for their certificate to be signed by the CA. This signing means that the CA confirms the identity of the requester according to the PKI regulations.
ETSI	European Telecommunications Standards Institute
FIPS	Federal Information Processing Standards
FQDN	Fully Qualified Domain Name
GDPR	General Data Protection Regulation
HSM	Hardware Security Module - special equipment which generates and stores digital keys securely.
NCP	Normalized Certificate Policy
OCSP	Online Certificate Status Protocol
Phishing	The fraudulent practice of sending e-mails purporting to be from reputable companies to induce individuals to reveal personal information, such as passwords and credit card numbers.
PKI	Public Key Infrastructure - a combination of processes and systems for the allocation and management of digital certificates.
Private Key	The private key of the asymmetric key pair that is used to digitally sign or decrypt data. The private key may not be distributed.
Professional Body	an organisation with individual members practicing a profession or occupation in which the organisation maintains an oversight of the knowledge, skills, conduct and practice of that profession or occupation.
Pseudonym	The use of a unique string of characters (numbers and letters) to identify a specific user. A name substitute.
Public Key	The public key of an asymmetric key pair used to digitally sign or decrypt data. The public key can be distributed.
PTC	Publicly Trusted Certificates
QCP	Qualified Certificate Policy
QCP-l-qscd	Qualified Certificate Policy for legal persons stored on qualified signature creation device
QCP-n-qscd	Qualified Certificate Policy for natural persons stored on qualified signature creation device
RA	Registration Authority - within PKI secure environment the control of client's personal details via the CA.
RDI	Rijksinspectie Digitale Infrastructuur (Dutch Authority for Digital Infrastructure)
Registration	The process of a user signing up and the subsequent verification of their identity and/or entity (organisation).

Term	Description
SSCD	Secure Signature Creation Device.
SSL	Secure Sockets Layer
Subject	<p>The subject of a certificate is the party named in the certificate as the holder of the Private Key associated with the Public Key given in the certificate. The subject can be a;</p> <ul style="list-style-type: none"> <li>* natural person</li> <li>* legal person (e.g. Organisation)</li> <li>* device or system operated represented by a natural or legal person</li> </ul>
Subscriber	<p>An Applicant who has been verified and been issued a certificate. Subscribers use our <b>Products</b>. Subscribers are not always the party identified in a certificate, e.g. when a certificate is issued to an organisation. Before the identity of the Subscriber is verified, a Subscriber is an applicant.</p>
TLS	Transport Layer Security
TSP	Trust Service Provider
Validation	The process of checking the validity of information e.g. validation of passport details.
Verification	The process of verifying the user's identity in order to complete registration for a product - to the required Level of Assurance (LoA).
VSC	Virtual Smart Card
WID	Wet op Identificatieplicht. Law regarding mandatory provision of identification.

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