BANCO DE ESPAÑA
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Banco de España's Public Key Infrastructure

Certificate Policies for Internal User Certificates

OVERVIEW This document sets out the Certificate Policies (CP) governing the internal user certificates issued by the Corporate Certification Authority of Banco de España's Public Key Infrastructure (PKI).

Control Sheet

Title	Certificate Policies for Internal User Certificates
Author	Information Systems Department
Version	1.0
Date	20.10.2014

Change Log

Version	Date	Change Reason
1.0	20.10.2014	First version of the certificate policies that consolidates in a single document all the certificates issued for internal users by Banco de España's Corporate CA

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1 Introduction

1.1 Overview

This document sets out the Certificate Policies (CP) governing the internal user certificates issued by the Corporate Certification Authority of the Public Key Infrastructure (hereinafter, PKI) of Banco de España (hereinafter, PKIBDE).

From the perspective of the X.509 v3 standard, a CP is a set of rules that define the applicability or use of a certificate within a community of users, systems or specific class of applications that have a series of security requirements in common.

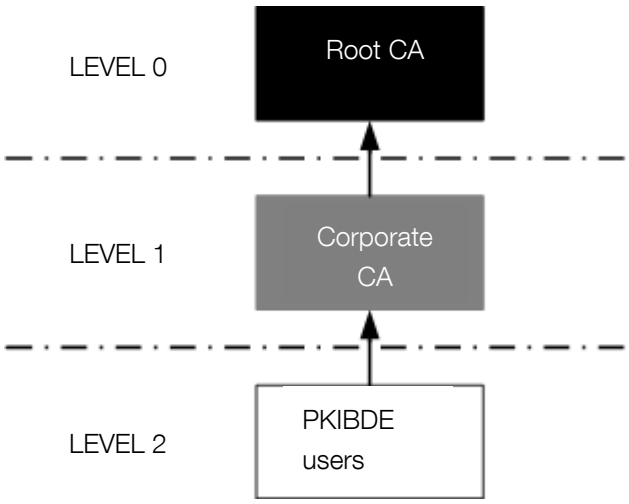
This CP details and completes the "Certification Practice Statement" (CPS) of Banco de España's PKI (PKIBDE), containing the rules to which the use of the certificates defined in this policy are subject, as well as the scope of application and the technical characteristics of this type of certificate.

This CP, with the exception of section 9, which contains a slight variation, has been structured in accordance with the guidelines of the PKIX work group in the IETF (Internet Engineering Task Force) in its reference document RFC 3647 (approved in November 2003) "Internet X.509 Public Key Infrastructure Certificate Policy and Certification Practices Framework". In order to give the document a uniform structure and facilitate its reading and analysis, all the sections established in RFC 3647 have been included. Where nothing has been established for any section the phrase “No stipulation” will appear. Additionally, apart from the headings established in RFC 3647, a new chapter has been included that deals with personal data protection in order to comply with Spanish legislation on this matter.

The CP includes all the activities for managing internal user certificates throughout their life cycle, and serves as a guide for the relations between Corporate CA and its users. Consequently, all the parties involved must be aware of the content of the CP and adapt their activities to the stipulations therein.

This CP assumes that the reader is conversant with the PKI, certificate and electronic signature concepts. If not, readers are recommended to obtain information on the aforementioned concepts before they continue reading this document.

The general architecture, in hierarchic terms, of the Banco de España's PKI is as follows:



1.2 Document Name and Identification

Document name	Certificate Policies (CP) for Internal User Certificates
Document version	1.0
Document status	Approved
Date of issue	20.10.2014
OID (Object Identifier)	1.3.6.1.4.1.19484.2.2.20: Certificate Policies for internal user certificates (this document) 1.3.6.1.4.1.19484.2.2.6: Certificate Policy for authentication certificates 1.3.6.1.4.1.19484.2.2.12: Certificate Policy for electronic signature certificates 1.3.6.1.4.1.19484.2.2.17: Certificate Policy for encryption certificates recoverable in software 1.3.6.1.4.1.19484.2.2.8: Certificate Policy for encryption certificates (obsolete) 1.3.6.1.4.1.19484.2.2.15: Certificate Policy for administrator certificates 1.3.6.1.4.1.19484.2.2.13: Certificate Policy for provisional authentication certificates 1.3.6.1.4.1.19484.2.2.10: Certificate Policy for provisional electronic signature certificates 1.3.6.1.4.1.19484.2.2.16: Certificate Policy for provisional administrator certificates
CPS location	http://pki.bde.es/politicas
Related CPS	Certification Practice Statement of Banco de España's PKI OID 1.3.6.1.4.19484.2.2.1

1.3 PKI Participants

The participating entities and persons are:

- Banco de España, as owner of PKIBDE.
- The Policy Administration Authority.
- The Certification Authorities.
- The Registration Authorities.
- The Validation Authorities.
- The Keys Archive.
- The Applicants and Subscribers of the certificates issued by PKIBDE.
- The Relying Parties of the certificates issued by PKIBDE.

1.3.1 The Policy Administration Authority

The Policy Administration Authority is defined in accordance with the PKIBDE Certification Practice Statement.

1.3.2 Certification Authorities

The Certification Authorities are defined in accordance with the PKIBDE Certification Practice Statement.

The Certification Authorities that make up PKIBDE are:

- **Root CA**: First-level Certification Authority. This CA only issues certificates for itself and its Subordinate CAs. It will only be in operation whilst carrying out the operations for which it is established. Its most significant data are:

Unique Name	CN= BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA, C=ES
Serial Number	F16D 7586 5D7C CF92 41AD A17A CD9A 3DE2
Unique Name of Issuer	CN= BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA, C=ES
Validity Period	From 08-07-2004 11:34:12 to 08-07-2034 11:34:12
Message Digest (SHA-1)	2B60 DE7D 3337 8BF7 5B67 8B10 77BB F951 6029 D6A8

- **Corporate CA**: Certification Authority subordinate to the Root CA. Its function is to issue certificates for PKIBDE users. This CP refers to the authentication certificates issued by said entity. Its most significant data are:

Unique Name	CN= BANCO DE ESPAÑA-AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES
Serial Number	366A 524D A5E4 4AF8 4108 A140 9B9B 76EB
Unique Name of Issuer	CN= BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA, C=ES
Validity Period	From 29-07-2004 9:03:28 to 29-07-2019 9:03:28
Message Digest (SHA-1)	ABE6 1ED2 5AF6 4253 F77B 322F 6F21 3729 B539 1BDA

1.3.3 Registration Authorities

The Registration Authorities are defined in accordance with the PKIBDE Certification Practice Statement.

Authentication Certificate issuance is carried out with the intervention of the Corporate RA, with requests managed remotely.

1.3.4 Validation Authority

The Validation Authority is defined in accordance with the PKIBDE Certification Practice Statement.

1.3.5 Keys Archive

The Key Archive enables escrow and recovery of the private keys of encryption certificates. The Key Archive guarantees the confidentiality of the private keys and their recovery requires the intervention of at least two people. This CP regulates the request and processing procedures for recovery of private keys of the encryption certificate (obsolete) or encryption certificate recoverable in software, that is comprised in the personal certificate package (see section 1.3.6).

1.3.6 Certificate Subscribers

The Certificate Subscribers are defined in accordance with the PKIBDE Certification Practice Statement.

The types of persons who may be subscribers of internal user certificates issued by the Corporate CA are limited to those included in the following chart:

Certification Environment	Subscribers
Corporate CA	Banco de España's internal users, that can be employees, collaboratos and personnel in contracted companies with access to Banco de España's information systems

The Banco de España's PKI issues the following types of personal certificates:

- **Personal certificates**. This is a package of certificates stored in the same cryptographic device (typically a smartcard) intended for general use of any Banco de España's internal user. This comprises the following certificates:
  - Authentication certificate, used to authenticate the subscriber to IT systems that accept this mechanism.
  - Electronic signature certificate, used to sign electronic documents, e-mail and electronic transactions.
  - Encryption certificate (deprecated[1]) or software recoverable encryption certificate, used to encrypt electronic documents and e-mail.

- **Administrator certificate**. This is a certificate stored in a cryptographic device (typically a smartcard) used to authenticate subscribers that have got an administration account to IT systems that accept this mechanism.

- **Provisional personal certificates**. This is a package of certificates stored in the same cryptographic device (typically a smartcard) intended for the case that the subscriber has forgotten his smartcard with personal certificates.

These certificates have a maximum expiration period of 7 days, although User Administrators can request a lower period.

This package comprises the following certificates:

  - Authentication certificate, used to authenticate the subscriber to IT systems that accept this mechanism.
  - Electronic signature certificate, used to sign electronic documents, e-mail and electronic transactions.

- **Provisional administrator certificate**. This is a certificate stored in a cryptographic device (typically a smartcard) intended for the case that the subscriber has forgotten his smartcard with an administrator certificate. This certificate has a maximum expiration period of 7 days, although User Administrators can request a lower period.

1.3.7 Relying Parties

Relying parties are those that make use of the certificates to identify the subscribers of authentication certificates issued by the PKIBDE Corporate CA.

[1] This certificate type is not issued by the Corporate CA any more, but it is still possible to recover the key pairs corresponding to old encryption certificate from the Key Archive

1.3.8 Other affected parties

Applicants: individuals who have requested issuance of a PKIBDE certificate.
User Administrators: individuals within Banco de España who process the personal certificate requests and verify that they are obtained correctly.

1.4 Certificate Usage

1.4.1 Appropriate certificate use

1 Certificates for internal users issued by Banco de España may only be used by its employees or contracted personnel, both in the internal and external relations necessary for the internal, inherent or operational running of the institution.

2 Within the scope of the paragraph above, certificates issued by PKIBDE may be used for financial activities, with the constraints established in each case pursuant to Section 7.3 and Section 11, letters h) and i) of the Electronic Signature Act.

The certificates regulated by this CP shall be used for personal authentication, signing and/or encryption purposes, depending on the corresponding keyUsage extension and OID attribute in the certificatePolicies extension.

1.4.2 Certificate Usage Constraints and Restrictions

Any other use not included in the previous point shall be excluded.

1.5 Policy Administration

1.5.1 Banco de España, as PKIBDE owner

This CP belongs to Banco de España:

Name	Banco de España		
E-mail address	pkibde@bde.es		
Address	C/Alcalá, 48. 28014 - Madrid (Spain)		
Telephone	+34913385000	**Fax**	+34915310059

1.5.2 Contact Person

This CP is managed by the Policy Administration Authority (PAA) of Banco de España's PKI:

Name	Banco de España's PKI Policy Administration Authority		
E-mail address	pkibde@bde.es		
Address	C/Alcala, 522. 28027 - Madrid (Spain)		
Telephone	+34913386666	**Fax**	+34913386875

1.5.3 Establishment of the suitability of a CPS from an External CA as regards the PKIBDE Certificate Policies

As specified in PKIBDE's CPS.

1.5.4 Approval Procedure for this CP

As specified in PKIBDE's CPS.

1.6 Definitions and Acronyms

1.6.1 Definitions

Within the scope of this CP the following terms are used:

Authentication: the process of verifying the identity of an applicant or subscriber of a PKIBDE certificate.

Electronic Certificate: a document signed electronically by a certification services provider, which links signature verification data (public key) to a signatory and confirms their identity. This is the definition contained in Law 59/2003, which this document extends to cases in which the signature verification data is linked to a computer component.

Public Key and Private Key: the asymmetric cryptography on which the PKI is based employs a key pair in which what is enciphered with one of these can only be deciphered by the other, and vice versa. One of these keys is "public" and includes the electronic certificate, whilst the other is "private" and is only known by the certificate subscriber and, when appropriate, by the Keys Archive.

Session Key: key established to encipher communication between two entities. The key is established specifically for each communication, or session, and its utility expires upon termination of the session.

Computer Component (or simply, "component"): refers to any software or hardware device that may use electronic certificates, for its own use, for the purpose of its identification or for exchanging signed or enciphered data with relying parties.

Directory: data repository that is accessed though the LDAP protocol.

Identification: the process of establishing the identity of an applicant or subscriber of a PKIBDE certificate.

User Identifier: a set of characters that are used to uniquely identify the user of a system.

Public Key Infrastructure: set of individuals, policies, procedures, and computer systems necessary to provide authentication, encryption, integrity and nonrepudiation services, by way of public and private key cryptography and electronic certificates.

Trust Hierarchy: set of certification authorities that maintain a relationship of trust by which a CA of a higher level guarantees the trustworthiness of one or several lower level CAs. In the case of PKIBDE, the hierarchy has two levels, the Root CA at the top level guarantees the trustworthiness of its subordinate CAs, one of which is the Corporate CA.

Provider of Certification Services: individual or entity that issues electronic certificates or provides other services related to the electronic signature.

Applicants: individuals who apply for a certificate for themselves or for a computer component.

Relying Parties: individuals or entities other than subscribers that decide to accept and rely on a certificate issued by PKIBDE.

Subscribers: individuals or computer components for which an electronic certificate is issued and accepted by said individuals or, in the case of component certificates, by the component manager.

1.6.2 Acronyms

PAA: Policy Administration Authority

CA: Certification Authority

RA: Registration Authority

VA: Validation Authority

CRL: Certificate Revocation List

C: (Country). Distinguished Name (DN) attribute of an object within the X.500 directory structure
CDP: CRL Distribution Point
CEN: Comité Européen de Normalisation
CN: Common Name Distinguished Name (DN) attribute of an object within the X.500 directory structure
CSR: Certificate Signing Request: set of data that contains the public key and its electronic signature using the companion private key, sent to the Certification Authority for the issue of an electronic signature that contains said public key.
CWA: CEN Workshop Agreement
DN: Distinguished Name: unique identification of an entry within the X.500 directory structure
CPS: Certification Practice Statement
ETSI: European Telecommunications Standard Institute
FIPS: Federal Information Processing Standard
HSM: Hardware Security Module: cryptographic security module used to store keys and carry out secure cryptographic operations
IETF: Internet Engineering Task Force (internet standardisation organisation)
LDAP: Lightweight Directory Access Protocol
O: Organisation. Distinguished Name (DN) attribute of an object within the X.500 directory structure
OCSP: Online Certificate Status Protocol: this protocol enables online verification of the validity of an electronic certificate
OID: Object Identifier
OU: Organisational Unit. Distinguished Name (DN) attribute of an object within the X.500 directory structure
CP: Certificate Policy
PIN: Personal Identification Number: password that protects access to a cryptographic card.
PKCS: Public Key Infrastructure Standards: internationally accepted PKI standards developed by RSA Laboratories
PKI: Public Key Infrastructure
PKIBDE: Banco de España's PKI
PKIX: Work group within the IETF (Internet Engineering Task Group) set up for the purpose of developing PKI and internet specifications.
PCS: Provider of Certification Services.
PUK: PIN UnlocK Code: password used to unblock a cryptographic card that has been blocked after repeatedly and consecutively entering the wrong PIN.
RFC: Request For Comments (Standard issued by the IETF)

2 Publication and Repository Responsibilities

2.1 Repositories
As specified in PKIBDE's CPS.

2.2 Publication of Certification Data
As specified in PKIBDE's CPS.

2.3 Publication Timescale or Frequency
As specified in PKIBDE's CPS.

2.4 Repository Access Controls
As specified in PKIBDE's CPS.

3 Identification and Authentication (I&A)

3.1 Naming

3.1.1 Types of names

The certificates issued by PKIBDE contain the Distinguished Name (or DN) X.500 of the issuer and that of the certificate subject in the fields *issuer name* and *subject name*, respectively.
The CN (Common Name) attribute of the DN contains a prefix that identifies the certificate usage, and the following are accepted:

Personal certificates

- [A] Authentication certificate
- [F] Electronic signature certificate
- [C] Encryption certificate

Administrator certificate

- [X] Administrator certificate

Provisional personal certificates

- [A] Provisional personal certificate
- [F] Provisional electronic signature certificate

Provisional administrator certificate

- [X] Provisional administrator certificate

This prefix is followed by the name and two surnames of the certificate subscriber.

Additionally, the following fields are used:

- SerialNumber= <Doc. Identification> (OID: 2.5.4.5)
- PS= <User Code> (OID: 2.5.4.65)

The rest of the DN attributes shall have the following fixed values:

- For Banco de España's employees and collaborators:
  OU=PERSONAS, O=BANCO DE ESPAÑA, C=ES
- For subcontractor's employees:
  OU=PERSONAS, OU=EMPRESAS EXTERNAS, O=BANCO DE ESPAÑA, C=ES

3.1.2 The need for names to be meaningful

In all cases the distinguished names of the certificates must be meaningful and are subject to the rules established in the previous point in this respect.

3.1.3 Rules for interpreting various name formats

The rule applied by PKIBDE for the interpretation of the distinguished names for subscribers of the certificates it issues is the ISO/IEC 9595 (X.500) Distinguished Name (DN) standard.

3.1.4 Uniqueness of names

Certificate DNs may not be repeated. The use of the user's unique code guarantees the uniqueness of the DN.

3.1.5 Name dispute resolution procedures

Any dispute concerning ownership of names shall be resolved as stipulated in point *9.13 Claims and Jurisdiction* in this document.

3.1.6 Recognition, authentication, and the role of trademarks

No stipulation.

3.2 Initial Identity Validation

3.2.1 Means of proof of possession of the private key

Depending on the specific certificate type, the means of proof of private key possession will be different:

Personal certificates

- [A] Authentication certificate: the key pair will be created by the subject in the private zone into a cryptographic token and the public key will be provided to the Corporate CA for its certification.
- [F] Electronic signature certificate: the key pair will be created by the subject in the private zone into a cryptographic token and the public key will be provided to the Corporate CA for its certification.
- [C] Encryption certificate (obsolete) and encryption certificate recoverable in software: the key pair will be created by the Corporate CA so this section does not apply.

Administrator certificate

- [X] Administrator certificate: the key pair will be created by the subject in the private zone into a cryptographic token and the public key will be provided to the Corporate CA for its certification.

Provisional personal certificates

- [A] Provisional personal certificate: the key pair will be created by the subject in the private zone into a cryptographic token and the public key will be provided to the Corporate CA for its certification.
- [F] Provisional electronic signature certificate: the key pair will be created by the subject in the private zone into a cryptographic token and the public key will be provided to the Corporate CA for its certification.

Provisional administrator certificate

[X] Provisional administrator certificate: the key pair will be created by the subject in the private zone into a cryptographic token and the public key will be provided to the Corporate CA for its certification.

3.2.2 Identity authentication for an entity

Issue of certificates for entities is not considered.

3.2.3 Identity authentication for an individual

Authentication of identity of an individual requires their physical presence. Applicants must go to their Users Administrator, duly identified by way of their identification card or any other identification document valid at law.

3.2.4 Non-verified applicant information

All the information stated in the previous section must be verified.

3.2.5 Validation of authority

No stipulation, given that the issue of certificates for entities is not considered.

3.2.6 Criteria for operating with external CAs

As specified in PKIBDE's CPS.

3.3 Identification and Authentication for Re-key Requests

3.3.1 Identification and authentication requirements for routine re-key

The individual authentication process shall be in person with the same criteria as for identity validation.

3.3.2 Identification and authentication requirements for re-key after certificate revocation

The individual authentication process shall be in person with the same criteria as for routine renewal.

4 Certificate Life-Cycle Operational Requirements

This chapter contains the operational requirements for the life cycle of internal user certificates issued by the Corporate CA. Despite the fact that these certificates will be stored on cryptographic devices (typically smartcards), it is not the purpose of the Certificate Policy to regulate the management of said cards and, therefore, it is also assumed that the certificate applicants have previously obtained their cryptographic devices.
On the other hand, in this chapter some illustrations will be provided for better understanding. In the event of any difference or discrepancy between the text and the illustrations, the text will prevail in all cases, given the necessary synthetic nature of the illustrations.

4.1 Certificate Application

4.1.1 Who can submit a certificate application?

Internal user certificate applications refer to two types of groups:

- Employees: the application is deemed to have been made automatically by the mere fact of joining Banco de España's staff. Employees must contact the Users Administrator assigned to them with their identification card for the latter to identify them, register them in the PKI and then activate the certificate issue.
- Collaborators and subcontractors: The request must be made by the department to which they are assigned, depending on their need to access the information systems. Collaborators or subcontractors must contact the Users Administrator assigned to them with their identification card or any other document valid in law for said Administrator to identify them, register them in the PKI and then activate the certificate issue.

Application for a certificate does not mean it will be obtained if the applicant does not fulfil the requirements established in the CPS or in this CP. The PKI Administrator may request that the applicant provide the documentation it deems appropriate.

4.1.2 Enrolment process and applicants' responsibilities

This process consists on the following steps:

1 Once applicant has the cryptographic device (typically a smartcard), he must go to his Users Administrator assigned to hi.

2 The Users Administrator validates that the applicant has got a valid cryptographic device and, if the device is new, he checks that the applicant changes the default PIN and PUK.

3 The Users Administrator identifies the applicant by means of his identification card or any other document valid in law. Afterwards using the certificate management application, he enters the applicant’s data, selects the required certificate type, and activates the certificate request. The Registration Authority enrols the request and keeps waiting for the applicant to activate it.

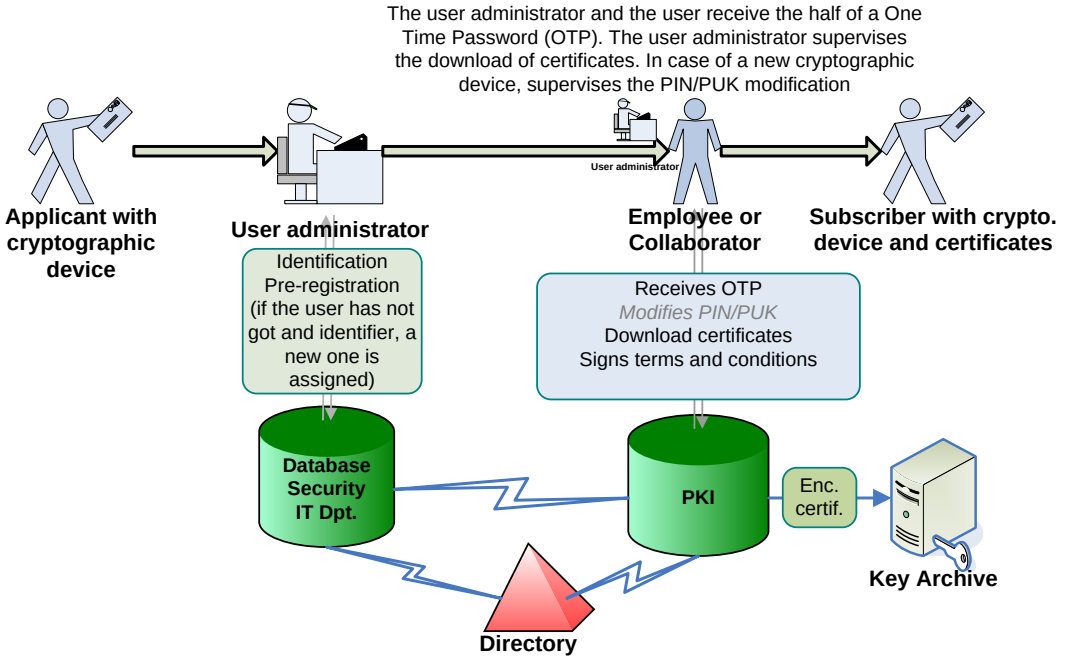
4 The applicant accesses the Registration Authority, downloads the Terms and Conditions Acceptance document for internal user certificates, and signs it with handwritten signature to acquire the condition of certificate subscriber. The Registration Authority generates a one-time password that will be required to download the certificate package. The password is split into two parts, one of them sent to the applicant (user password) and the other to the Users Administrator (administrator password).

5 The applicant delivers the Terms and Conditions document to the Users Administrators, who also signs it with his handwritten signature and keep it for archival. Afterwards, the Users Administrator provides the applicant with the administrator password.

6 The applicant accesses the Registration Authority by means of the user and administrator passwords. Then he activates the certificate generation process in the Registration Authority.
7 The Registration Authority interacts with the cryptographic device and the applicant is requested to type the PIN. The required key pairs are generated inside the cryptographic token (see chapter 3.2.1)
8 The Registration Authority sends the public keys to the Corporate CA, which issues the certificates and also generates the encryption key pair (see chapter 3.2.1)
9 The Registration Authority inserts into the cryptographic device the applicant's certificates and encryption key pair, issued by the Corporate CA.

The responsibilities of applicants not contained in this section are included in the PKIBDE CPS.
The following illustration offers a summary of the process for obtaining internal user certificates:

INTERNAL USER CERTIFICATES ENROLLMENT PROCESS



Apart from the process described, a remote CA Administrator may enter certificate applications directly and download the internal user certificate package into the applicant's cryptographic device.

4.2 Certificate Application Processing

4.2.1 Performance of identification and authentication procedures

Applicant identification and authentication are carried out by the Users Administrator in all the cases: initial issuance, renewal for loss or replacement of the cryptographic device and renewal for certificate expiration.

4.2.2 Approval or rejection of certificate applications

Certificates will be issued once PKIBDE has completed the verifications necessary to validate the certificate application.

The Corporate CA may refuse to issue a certificate to any applicant based exclusively on its own criteria and without leading to any liability whatsoever for any consequences that may arise from said refusal.
Applications for certificates from Banco de España's employees are approved by their status as such, whilst those of collaborators and subcontractors require, for approval, prior request for certificates by the department to which they are assigned.

4.2.3 Time limit for processing the certificate applications

The PKIBDE Corporate CA shall not be held liable for any delays that may arise in the period between application for the certificates, publication in the PKIBDE repository and its delivery. As far as possible, the Corporate CA will process requests within 24 hours.
Applicants have a limited period of 30 calendar days in which to activate the generation and downloading of the certificates. Once this period has elapsed, they will be cancelled.

4.3 Certificate Issuance

4.3.1 Actions performed by the CA during the issuance of the certificates

Issuance of the certificates signifies final approval of the application by the CA.
When the PKIBDE Corporate CA issues a certificate package pursuant to a certificate application, it will make the notifications established under point 4.3.2. of this chapter.
All certificates will become effective upon issue, unless the certificate indicates a later date and time of entry into effect, which may not be more than 15 calendar days following issue. The period of validity is subject to possible early, temporary or permanent termination in the event of circumstances that give cause to the suspension or revocation of the certificates.

4.3.2 CA notification to the applicants of certificate issuance

Applicants will be advised of the availability of the certificates via e-mail.

4.4 Certificate Acceptance

4.4.1 Form of certificate acceptance

Applicants must confirm acceptance of internal user certificates and of its conditions by way of a hand-written signature.

4.4.2 Publication of the certificate by the CA

Internal user certificates will be published in the PKIBDE repository.

4.4.3 Notification of certificate issuance by the CA to other Authorities

Not applicable.

4.5 Key Pair and Certificate Usage

4.5.1 Subscribers' use of the private key and certificate

Subscribers may only use the private key and the certificate for the uses authorised in this CP and in accordance with the 'Key Usage' and 'Extended Key Usage' fields of the certificate. Likewise, subscribers may only use the key pair and the certificate once they have accepted the terms and conditions of use established in the CPS and CP, and only for that which is stipulated therein.
Following certificate end-of-life or revocation, subscribers must discontinue use of the private key.

The certificates regulated by this CP may be used only to provide the following security services:

Personal certificates

- Authentication certificate: authentication of the subscriber to information systems that accept this mechanism.
- Electronic signature certificate: electronic signature of e-mails, files and computer transactions in which one wants to include identity control of the signatory, integrity control and non-repudiation.
- Encryption certificate (obsolete) and encryption certificate recoverable in software: encryption of e-mails, files and transactions.

Administrator certificate

- Administrator certificate: authentication of subscribers with an administration account to information systems that accept this mechanism.

Provisional personal certificates

- Provisional personal certificate: authentication of the subscriber to information systems that accept this mechanism.
- Provisional electronic signature certificate: electronic signature of e-mails, files and computer transactions in which one wants to include identity control of the signatory, integrity control and non-repudiation.

Provisional administrator certificate

- Provisional administrator certificate: authentication of subscribers with an administration account to information systems that accept this mechanism.

4.5.2 Relying parties' use of the public key and the certificate

Relying parties may only rely on the certificates as stipulated in this CP and in accordance with the 'Key Usage' field of the certificate.

Relying parties must successfully perform public key operations as a condition for relying on a certificate and are obliged to check the status of a certificate using the mechanisms established in the CPS and this CP. Likewise, they accept the obligations regarding the conditions of use set forth in these documents.

4.6 Certificate Renewal

4.6.1 Circumstances for certificate renewal with no key changeover

All certificate renewals covered by this CP shall be carried out with change of keys. Consequently, the remaining points in section 4.6 (4.6.2 to 4.6.7) established in RFC 3647 are not included and, therefore, for the purposes of this CP, their content is "no stipulation".

4.7 Certificate Re-key

4.7.1 Circumstances for certificate renewal with key changeover

Internal user certificates may be renewed for the following reasons, among others:

- Expiry of the validity period.
- Modification of the data contained in the certificates.
- When the keys are compromised or are no longer fully reliable.

- Change of format.

All renewals, regardless of their cause, shall be carried out with a change of keys.

4.7.2 Who may request certificate renewal?

Renewals must be requested by certificate subscribers.

4.7.3 Procedures for processing certificate renewal requests with key changeover

This chapter is not applicable for provisional certificates (both, personal and administrator), because they are not renewed. If a subscriber needs provisional certificates before the previous ones have expired, new provisional certificates can be requested.

During the renewal process, the CA will check that the information used to verify the identity and attributes of the subscriber is still valid. If any of the subscriber's data have changed, they must be verified and registered with the agreement of the subscriber.

Applicant identification and authentication for the renewal of internal user certificates will be requested in person at the places of registration, as established for initial issuance.

If any of the conditions established in this CP have changed, the subscriber of the certificates must be made aware of this and agree to it.

In any case, certificate renewal is subject to:

- The request being made in due time and manner, following the instructions and regulations established by PKIBDE specifically for this purpose. Renewal of a certificate may only be requested within the last 90 days of its lifetime.
- The CA not having certain knowledge of the existence of any cause for the revocation / suspension of the certificate.
- The request for the renewal of the provision of services being for the same type of certificate as the one initially issued.

4.7.4 Notification of the new certificate issuance to the subscriber

They are notified by e-mail.

4.7.5 Manner of acceptance of certificates with changed keys

Subscribers confirm certificate acceptance by signing the Terms and Conditions application form.

4.7.6 Publication of certificates with the new keys by the CA

Internal user certificates will be published in the PKIBDE repository.

4.7.7 Notification of certificate issuance by the CA to other Authorities

No stipulation.

4.8 Certificate Modification

4.8.1 Circumstances for certificate modification

All certificate modifications carried out within the scope of this CP will be treated as certificate renewals and, therefore, the previous points in this respect shall be applicable.

Consequently, the remaining points in section 4.8 (4.8.2 to 4.8.7) established in RFC 3647 are not included, meaning that, for the purpose of this CP, they are not regulated.

4.9 Certificate Revocation and Suspension

4.9.1 Circumstances for revocation

Certificate revocation is the action that renders a certificate invalid prior to its expiry date. Certificate revocation produces the discontinuance of the certificate's validity, rendering it permanently inoperative as regards its inherent uses and, therefore, discontinuance of the provision of certification services. Revocation of a certificate prevents its legitimate use by the subscriber.

Revocation of a certificate entails its publication on the public-access Certificate Revocation Lists (CRL).

Internal user certificates may be revoked due to:

- Loss, disclosure, modification or any other circumstance that compromises the subscriber's private key or when suspicion of such compromise exists.
- Deliberate misuse of keys and certificates, or failure to observe or infringement of the operational requirements contained on the Acceptance Form for the terms and conditions of the certification services provided by Banco de España's Certification Authority, in the CPS or in this CP.
- The subscriber ceases to belong to the group, when said membership granted the subscriber the right to hold the certificate.
- Ceasing of PKIBDE activity.
- Defective issue of a certificate due to:
    1. Failure to comply with the material requirements for certificate issuance.
    2. Reasonable belief that basic information related to the certificate is or could be false.
    3. The existence of a data entry error or any other processing error.
- The key pair generated by the subscriber has been found to be "weak".
- The information contained in a certificate or used for the application becomes inaccurate.
- By order of the subscriber or an authorised third party.
- The certificate of a higher RA or CA in the certificate trust hierarchy is revoked.
- Any of the other causes specified in this CP or in the CPS.

The main effect of revocation as regards the certificate is the immediate and early termination of its term of validity, with which the certificate becomes invalid. Revocation shall not affect the underlying obligations created or notified by this CP, nor shall its effects be retroactive.

Additionally, revoked internal user certificates will be eliminated from the directory in which they are published.

4.9.2 Who can request revocation?

PKIBDE or any of the Authorities that comprise the former may, of their own accord, request the revocation of a certificate if they become aware or suspect that the subscriber's private key has been compromised, or in the event of any other factor that recommends taking such action.

Likewise, certificate subscribers may also request revocation of their certificates, which they must do in accordance with the conditions established under point 4.9.3.

The identification policy for revocation requests will be the same as that of the initial registration.

4.9.3 Procedures for requesting certificate revocation

The subscribers or individuals requesting the revocation must appear before the Users Administrator, identifying themselves and indicating the reason for the request.

The Users Administrator shall always process the revocation requests submitted by its assigned subscribers. The request is made via an option within the Computer Security Administration application, associated to the request of new certificates due to cryptographic device (typically smartcard) loss.
Apart from this ordinary procedure, PKI Operators and Administrators may immediately revoke any certificate upon becoming aware of the existence of any of the causes for revocation.

4.9.4 Revocation request grace period

Revocation shall be carried out immediately following the processing of each request that is verified as valid. Therefore, the process will not include a grace period during which the revocation request may be cancelled.

4.9.5 Time limit for the CA to process the revocation request

Requests for revocation of internal user certificates must be processed as quickly as possible, and in no case may said processing take more than 1 hour.

4.9.6 Requirements for revocation verification by relying parties

Verification of revocations is mandatory for each use made of internal user certificates.
Relying parties must check the validity of the CRL prior to each use and download the new CRL from the PKIBDE repository when the one they hold expires. CRLs stored in cache[2] memory, even when not expired, do not guarantee availability of updated revocation data.
For internal user certificates, the ordinary validity verification procedure for a certificate shall be carried out with Banco de España's Validation Authority, which shall indicate, through the OCSP protocol, the status of the certificate.

4.9.7 CRL issuance frequency

As specified in PKIBDE's CPS.

4.9.8 Maximum latency between the generation of CRLs and their publication

The maximum time allowed between generation of the CRLs and their publication in the repository is 6 hours.

4.9.9 Online certificate revocation status checking availability

PKIBDE provides a web server on which it publishes the CRLs for verification of the status of the certificates it issues. Additionally, there is a Validation Authority that, via OCSP protocol, enables certificate status verification.
The web addresses for access to the CRLs and the Validation Authority are set out in point *2.1 Repositories*.

4.9.10 Online revocation checking requirements

When using the Validation Authority, relying parties must have software capable of operating with the OCSP protocol to obtain the certificate information.

4.9.11 Other forms of revocation alerts available

No stipulation.

[2]Cache memory: memory that stores the necessary data for the system to operate faster, as it does not have to obtain this data from the source for every operation. Its use could entail the risk of operating with outdated data.

4.9.12 Special requirements for the revocation of compromised keys

There are no variations to the aforementioned clauses for revocation due to private key compromise.

4.9.13 Causes for suspension

The personal authentication certificates shall not be suspended.

4.9.14 Who can request the suspension?

Not applicable.

4.9.15 Procedure for requesting certificate suspension

Not applicable.

4.9.16 Suspension period limits

Not applicable.

4.10 Certificate Status Services

4.10.1 Operational characteristics

As specified in PKIBDE's CPS.

4.10.2 Service availability

As specified in PKIBDE's CPS.

4.10.3 Additional features

As specified in PKIBDE's CPS.

4.11 End of Subscription

Certificate subscription may be ended due to the following causes:

- Early certificate revocation due to any of the causes established in point 4.9.1.
- Expiry of the certificate.

If certificate renewal is not requested, the end of the subscription will terminate the relationship between the subscriber and the CA.

4.12 Key Escrow and Recovery

4.12.1 Key escrow and recovery practices and policies

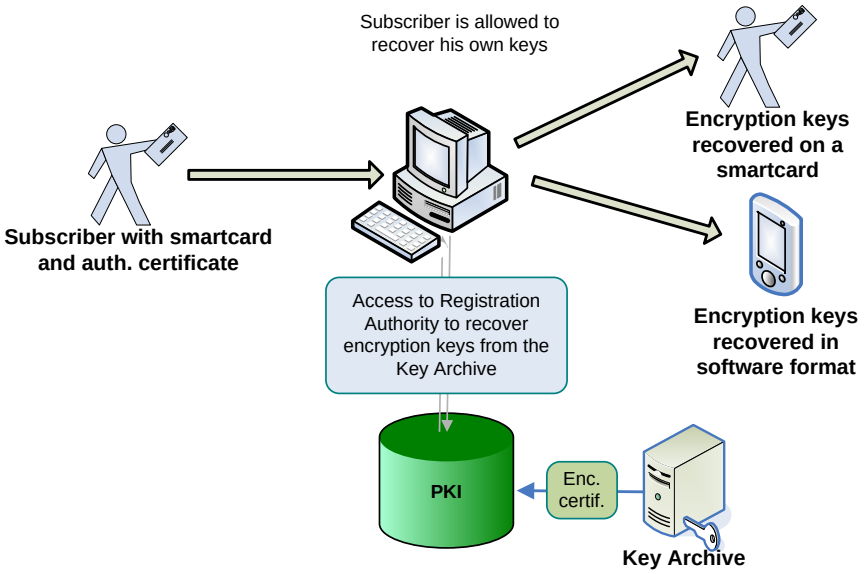
The only private keys that are archived in the Key Archive are the keys corresponding to encryption certificates (obsolete) and encryption certificates recoverable in software, which are part of the personal certificate package.

Recovery of encipherment keys is divided into two scenarios, depending on whether the applicant is a subscriber or a relying party. If the applicant is a relying party, two separate individuals are required, as described below, so that no one can independently access the encipherment key of a third party:

If the applicant is the subscriber

Subscribers are deemed as authorised to recover their own keys. They must have a normal or provisional authentication certificate in order to file a request and recover the keys. Subscribers will be able to recover a copy of their encryption keys, with the following limitations:

- If the encryption keys correspond to an encryption certificate (obsolete), subscribers will be allowed to recover the keys in a cryptographic device compliant with the specifications FIPS 140-2 Level 3 or CC EAL4+ or equivalent.
- If the encryption keys correspond to an encryption certificate recoverable in software, subscribers will be allowed to recover the keys either in a cryptographic device or in software format, compliant with the PKCS#12, typically for its installation in a mobile device.



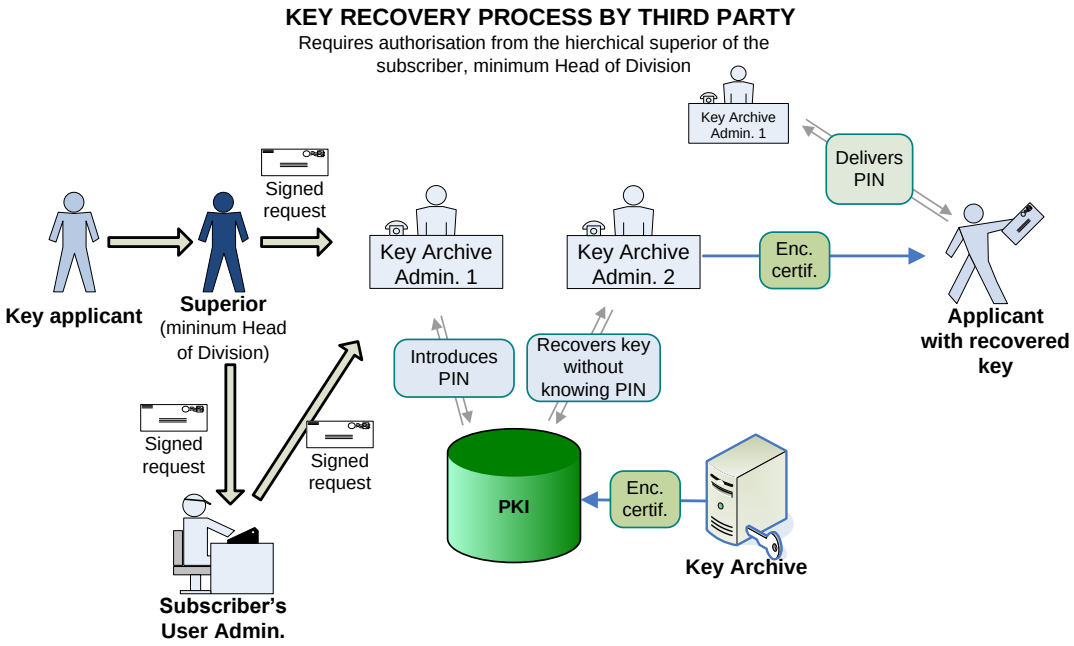
Applicants other than subscribers:

The application for recovery must be approved by a hierarchical superior of the subscriber with a minimum professional level of Division Manager, and the corresponding Users Administrator. In the case of senior management, a special procedure shall be established. The superior shall remit the signed request to the Users Administrator and the Administration and Budget Unit of the Information Systems Department. The Users Administrator, meanwhile, must confirm the petition to the same Unit by signed e-mail. Once the request has been sent, two Key Archive Administrators act as follows:

1 Once verified the signed request, one of the Key Archive Administrators, in presence of the second, accesses the Registration Authority application to recover from the Key Archive a PKCS#12 file with the encryption private key. The second Key Archive Administrator enters the PIN required to protect the PKCS#12 file.

2 The first Key Archive Administrator facilitates the PIN to the requestor.

3 The second Key Archive Administrator facilitates the recovered PKCS#12 file to the requestor, and he also supervises the delivery of the private key.



4.12.2 Session key protection and recovery policies and practices

No stipulation.

5 Facility, Management, and Operational Controls

5.1 Physical Security Controls

5.1.1 Site location and construction
As specified in PKIBDE's CPS.

5.1.2 Physical access
As specified in PKIBDE's CPS.

5.1.3 Power and air-conditioning
As specified in PKIBDE's CPS.

5.1.4 Water exposure
As specified in PKIBDE's CPS.

5.1.5 Fire prevention and protection
As specified in PKIBDE's CPS.

5.1.6 Storage system
As specified in PKIBDE's CPS.

5.1.7 Waste disposal
As specified in PKIBDE's CPS.

5.1.8 Offsite backup
Not applicable.

5.2 Procedural Controls

5.2.1 Roles responsible for PKI control and management
As specified in PKIBDE's CPS.

5.2.2 Number of individuals required to perform each task
As specified in PKIBDE's CPS.

5.2.3 Identification and authentication of each user
As specified in PKIBDE's CPS.

5.2.4 Roles that require separation of duties
As specified in PKIBDE's CPS.

5.3 Personnel Controls

5.3.1 Requirements concerning professional qualification, knowledge and experience
As specified in PKIBDE's CPS.

5.3.2 Background checks and clearance procedures
As specified in PKIBDE's CPS.

5.3.3 Training requirements
As specified in PKIBDE's CPS.

5.3.4 Retraining requirements and frequency
As specified in PKIBDE's CPS.

5.3.5 Frequency and sequence for job rotation
As specified in PKIBDE's CPS.

5.3.6 Sanctions for unauthorised actions
As specified in PKIBDE's CPS.

5.3.7 Requirements for third party contracting
As specified in PKIBDE's CPS.

5.3.8 Documentation supplied to personnel
As specified in PKIBDE's CPS.

5.4 Audit Logging Procedures

5.4.1 Types of events recorded
As specified in PKIBDE's CPS.

5.4.2 Frequency with which audit logs are processed
As specified in PKIBDE's CPS.

5.4.3 Period for which audit logs are kept
As specified in PKIBDE's CPS.

5.4.4 Audit log protection
As specified in PKIBDE's CPS.

5.4.5 Audit log back up procedures
As specified in PKIBDE's CPS.

5.4.6 Audit data collection system (internal vs. external)
As specified in PKIBDE's CPS.

5.4.7 Notification to the subject who caused the event
As specified in PKIBDE's CPS.

5.4.8 Vulnerability assessment
As specified in PKIBDE's CPS.

5.5 Records Archival

5.5.1 Types of records archived
As specified in PKIBDE's CPS.

5.5.2 Archive retention period
As specified in PKIBDE's CPS.

5.5.3 Archive protection
As specified in PKIBDE's CPS.

5.5.4 Archive backup procedures
As specified in PKIBDE's CPS.

5.5.5 Requirements for time-stamping records
As specified in PKIBDE's CPS.

5.5.6 Audit data archive system (internal vs. external)
As specified in PKIBDE's CPS.

5.5.7 Procedures to obtain and verify archived information
As specified in PKIBDE's CPS.

5.6 Key Changeover
As specified in PKIBDE's CPS.

5.7 Compromise and Disaster Recovery
5.7.1 Incident and compromise handling procedures
As specified in PKIBDE's CPS.

5.7.2 Corruption of computing resources, software, and/or data
As specified in PKIBDE's CPS.

5.7.3 Action procedures in the event of compromise of an Authority's private key
As specified in PKIBDE's CPS.

5.7.4 Installation following a natural disaster or another type of catastrophe
As specified in PKIBDE's CPS.

5.8 CA or RA Termination
5.8.1 Certification Authority
As specified in PKIBDE's CPS.

5.8.2 Registration Authority
No stipulation.

6 Technical Security Controls

Technical security controls for internal PKIBDE components, and specifically those for Root CA and Corporative CA, during certificate issue and certificate signature processes, are described in PKIBDE CPS.
In this paragraph technical security controls for the issuance of certificates under this CP are covered.

6.1 Key Pair Generation and Installation

6.1.1 Key pair generation

The keys for certificates issued by the Corporate CA according to this CP are generated in accordance to the following circumstances, depending on the type of certificate:

Personal certificates

- Authentication certificate: the corresponding key pair will be generated inside a cryptographic device (typically a smartcard) pursuant to the FIPS 140-2 Level 3 or CC EAL4+ specification or equivalent.
- Electronic signature certificate: the corresponding key pair will be generated inside a cryptographic device (typically a smartcard) pursuant to the FIPS 140-2 Level 3 or CC EAL4+ specification or equivalent.
- Encryption certificate (obsolete) and encryption certificate recoverable in software: the key pair will be generated by the Corporate CA, using a cryptographic module pursuant to the FIPS 140-2 level 3 specification.

Administrator certificate

- Administrator certificate: the corresponding key pair will be generated inside a cryptographic device (typically a smartcard) pursuant to the FIPS 140-2 Level 3 or CC EAL4+ specification or equivalent.

Provisional personal certificates

- Provisional personal certificate: the corresponding key pair will be generated inside a cryptographic device (typically a smartcard) pursuant to the FIPS 140-2 Level 3 or CC EAL4+ specification or equivalent.
- Provisional electronic signature certificate: the corresponding key pair will be generated inside a cryptographic device (typically a smartcard) pursuant to the FIPS 140-2 Level 3 or CC EAL4+ specification or equivalent.

Provisional administrator certificate

- Provisional administrator certificate: the corresponding key pair will be generated inside a cryptographic device (typically a smartcard) pursuant to the FIPS 140-2 Level 3 or CC EAL4+ specification or equivalent.

6.1.2 Delivery of private keys to subscribers

Such as section 6.1.1 states, all the private keys except the ones corresponding to the encryption certificate (obsolete) and encryption certificate recoverable in software, are generated in a cryptographic device, so no key delivery is required.

Regarding the delivery of encryption private keys, the process depend on the corresponding type of certificate:

- Encryption certificate (obsolete): private keys are delivered in a cryptographic device (typically a smartcard) pursuant to the specifications FIPS 140-2 Level 3 or CC EAL4+ or equivalent.
- Encryption certificate recoverable in software: private keys are delivered in a cryptographic device (typically a smartcard) pursuant to the specifications FIPS 140-2 Level 3 or CC EAL4+ or equivalent. Additionally, the subscriber will be allowed to recover a copy of the private key in PKCS#12 format, typically to be imported into a mobile device.

6.1.3 Delivery of the public key to the certificate issuer

The public key is generated by the Corporate CA and therefore delivery is not applicable.

6.1.4 Delivery of the CA's public key to relying parties

The Corporate CA's public key is included in the certificate of said CA. The Corporate CA's certificate is not included in the certificate generated by the subscriber. The Corporate CA's certificate must be obtained from the repository specified in this document where it is available for certificate subscribers and relying parties to carry out any type of verification.

6.1.5 Key sizes

The minimum size of the keys corresponding to internal user certificates is 2048 bits, although 1024 bits are also allowed for encryption certificates (obsolete).

6.1.6 Public key generation parameters and quality checks

Public keys corresponding to internal user certificates are encoded pursuant to RFC 3280 and PKCS#1. The key generation algorithm is the RSA.

6.1.7 Key usage purposes (KeyUsage field in X.509 v3)

The value of the 'Key Usage' and 'Extended Key Usage' fields is described in section 7.1.2.

6.2 Private Key Protection and Cryptographic Module Engineering Controls

6.2.1 Cryptographic module standards

The module used for the creation of keys used by PKIBDE's Corporate CA has FIPS 140-2 Level 3 certification.

Start-up of each one of the Certification Authorities, taking into account that a Security Cryptographic module (HSM) is used, involves the following tasks:

a HSM module status boot up.
b Creation of administration and operator cards.
c Generation of the CA keys.

As regards the cryptographic cards suitable for secure signature creation devices, they comply with the CC EAL4+ security level, although the equivalent ITSEC E3 or FIPS 140-2 Level 2 certifications are also acceptable.

6.2.2 Private key multi-person (k out of n) control

The private key, both for Root CA as for Subordinate CA, is under multi-person control; its activation is done through CA software initialization by means of a combination of CA's operators. This is the only activation method for said private key.

There is no multi-person control established for accessing the private keys of the certificates issued under this CP that are generated in a smartcard. Regarding copies of the private keys that are archived in the Key Archived, when they are recovered by a person different to its subscriber, the participation of two different people is required, one to recover the key in PKCS#12 format and the other to type the PIN that protects the key. This process is described in section 4.12.1.

6.2.3 Escrow of private keys

The private keys of the internal user certificate are housed on cryptographic cards held by their subscribers, they are not possible to be exported under any circumstances, and access to operations with said cards is protected by a PIN.

There is the only exception of private keys corresponding to encryption certificates (obsolete) and encryption certificates recoverable in software. In this case, the Corporate CA, once generated the key pair, keeps a copy of the private key in the Key Archive, which uses a cryptographic module (HSM) to protect it. The recovery of a private key from the Key Archive is described in section 4.12.1.

6.2.4 Private key backup copy

The subscribers of certificates issued under this CP cannot backup their certificates because the keys cannot be exported outside of the cards and these cannot be cloned.

There is the only exception of private keys corresponding to encryption certificates recoverable in software. In this case, the subscriber is not required to backup the private key, since he will be always allowed to recover it from the Key Archive.

6.2.5 Private key archive

The Corporate CA, once the internal user certificates issuance process has finalised, does not keep a copy of its private key and, therefore, the private key can only be found on the corresponding cryptographic card held by the subscriber.

There is the only exception of private keys corresponding to encryption certificates (obsolete) and encryption certificates recoverable in software. In this case, the Corporate CA, once generated the key pair, keeps a copy of the private key in the Key Archive, which uses a cryptographic module (HSM) to protect it. The recovery of a private key from the Key Archive is described in section 4.12.1.

6.2.6 Private key transfer into or from a cryptographic module

No stipulated.

6.2.7 Private key storage in a cryptographic module

Private keys are created in the cryptographic device, and there are kept in the device.

There is the only exception of private keys corresponding to encryption certificates (obsolete) and encryption certificates recoverable in software. In this case, the Corporate CA, once generated the key pair, keeps a copy of the private key in the Key Archive, which uses a cryptographic module (HSM) to protect it. The recovery of a private key from the Key Archive is described in section 4.12.1.

6.2.8 Private key activation method

The private keys corresponding to internal user certificates are kept in a cryptographic device (typically a smartcard) and its use is controlled by the device's PIN.

There is the only exception of private keys corresponding to encryption certificates recoverable in software. In this case, the private key protection depends on the functionalities provided by the device where the private key is installed (typically a mobile device).

6.2.9 Private key deactivation method

It can be deactivated by removing the card from the reader. Some computer applications also provide deactivation following a time-out period.
There is the only exception of private keys corresponding to encryption certificates recoverable in software. In this case, the private key deactivation depends on the functionalities provided by the device where the private key is installed (typically a mobile device).

6.2.10 Private key destruction method

As specified in PKIBDE's CPS.

6.2.11 Cryptographic module classification

The cryptographic modules used comply with the FIPS 140-2 Level 3 or CC EAL4+ or equivalent.

6.3 Other Aspects of Key Pair Management

6.3.1 Public key archive

As specified in PKIBDE's CPS.

6.3.2 Operational period of certificates and usage periods for key pairs

Internal user certificates and their linked key pair have a lifetime of 4 years, although the Corporate CA may establish a shorter period at the time of their issue.
There is the only exception of provisional certificates (both personal and administrator), and their corresponding private keys, that have a maximum lifetime of 7 days, although the Corporate CA may establish a shorter period at the time of their issue.

6.4 Activation Data

6.4.1 Generation and installation of activation data

As specified in PKIBDE's CPS.

6.4.2 Activation data protection

As specified in PKIBDE's CPS.

6.4.3 Other activation data aspects

As specified in PKIBDE's CPS.

6.5 Computer Security Controls

6.5.1 Specific security technical requirements

As specified in PKIBDE's CPS.

6.5.2 Computer security evaluation

As specified in PKIBDE's CPS.

6.6 Life Cycle Security Controls

6.6.1 System development controls

As specified in PKIBDE's CPS.

6.6.2 Security management controls

As specified in PKIBDE's CPS.

6.6.3 Life cycle security controls

As specified in PKIBDE's CPS.

6.7 Network Security Controls

As specified in PKIBDE's CPS.

6.8 Timestamping

As specified in PKIBDE's CPS.

7 Certificate, CRL, and OCSP Profiles

7.1 Certificate Profile

7.1.1 Version number

Component certificates for internal use issued by the Corporate CA use the X.509 version 3 (X.509 v3) standard.

7.1.2 Certificate extensions

The certificate extensions used generically are:

- *Subject Key Identifier*. Classified as non-critical.
- *Authority Key Identifier*. Classified as non-critical.
- *KeyUsage*. Classified as critical.
- *extKeyUsage.* Classified as non-critical.
- *CertificatePolicies*. Classified as non-critical.
- *SubjectAlternativeName*. Classified as non-critical.
- *BasicConstraints*. Classified as critical.
- *CRLDistributionPoint*. Classified as non-critical.
- *Auth. Information Access*. Classified as non-critical.
- *bdeCertType (1.3.6.1.4.1.19484.2.3.6)*. Classified as non-critical.

7.1.2.1 Authentication certificate

Authentication certificate		
FIELD	**CONTENT**	**CRITICAL for extensions**
Fields X509v1		
1. Version	V3	
2. Serial Number	Random	
3. Signature Algorithm	SHA-1WithRSAEncryption	
4. Issuer Distinguished Name	CN=BANCO DE ESPAÑA – AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES	
5. Lifetime	4 years	
6. Subject	In the case of Banco de España's employees: CN=[A] Name Surname 1 Surname 2 SerialNumber= Identity Document PS=User Code OU=PERSONAS O=BANCO DE ESPAÑA C=ES In the case of subcontractor companies' employees: CN=[A] Nombre Apellido1 Apellido 2 SerialNumber= Documento Identificación PS=User Code OU=PERSONAS OU=EMPRESAS EXTERNAS O=BANCO DE ESPAÑA C=ES	
7. Subject Public Key Info	Algorithm: RSA Encryption Minimum Key Length: 2048(big string)	
Fields X509v2		
1. issuerUniqueIdentifier	Not used	

2. subjectUniqueIdentifier	Not used	
X509v3 extensions		
1. Subject Key Identifier	Derived from using the SHA-1 hash on the subject's public key.	NO
2. Authority Key Identifier		
keyIdentifier	Derived from using the SHA-1 hash on the issuing CA's public key. (c2 45 2b f4 f9 92 ee 33 59 98 e1 82 75 6b 8c bc d0 b6 e5 c1)	
authorityCertIssuer	CN=BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA C=ES	
authorityCertSerialNumber	36 6a 52 4d a5 e4 4a f8 41 08 a1 40 9b 9b 76 eb	
3. KeyUsage		YES
Digital Signature	1	
Non Repudiation	0	
Key Encipherment	0	
Data Encipherment	0	
Key Agreement	1	
Key Certificate Signature	0	
CRL Signature	0	
4. extKeyUsage	clientAuth, smartCardLogon, anyExtendedKeyUsage, emailProtection[3]	NO
5. privateKeyUsagePeriod	Not used	
6. Certificate Policies		NO
Policy Identifier	1.3.6.1.4.1.19484.2.2.1	
URL CPS	http://pki.bde.es/politicas	
Notice Reference	Certificado sujeto a: Declaración de Prácticas de Certificación del Banco de España. © 2014 Banco de España. Todos los derechos reservados. (C/Alcalá 48, 28014 Madrid-España)	
Policy Identifier	1.3.6.1.4.1.19484.2.2.6	
Notice Reference	Certificado personal de autenticación sujeto a la Declaración de Prácticas de Certificación del Banco de España. ©2014 Banco de España. Todos los derechos reservados	
7.Policy Mappings	Not used	
8. Subject Alternate Names	UPN (User's Principal Name in Windows 2000) E-mail address pursuant to RFC 822 1.3.6.1.4.1.19484.2.3.1 Name 1.3.6.1.4.1.19484.2.3.2 Surname1 1.3.6.1.4.1.19484.2.3.3 Surname2 1.3.6.1.4.1.19484.2.3.4 BDE employee no. 1.3.6.1.4.1.19484.2.3.5 BDE User Code 1.3.6.1.4.1.19484.2.3.7 Identity Document 1.3.6.1.4.1.19484.2.3.15 ID for subcontractors [4]	NO
9. Issuer Alternate Names	Not used	
10. Subject Directory Attributes	Not used	
11. Basic Constraints	CA	YES
Subject Type	End Entity	
Path Length Constraint	Not used	

[3]This attribute shall be included solely in personal authentication certificates issued by PKIBDE for contracted company personnel.
[4]This attribute shall be included solely in personal certificates issued by PKIBDE for contracted company personnel. Enables differentiation of subscribers that belong to this group.

12. CRLDistributionPoints	(1) Active Directory: ldap:///CN=BANCO%20 DE%20ESPA%D1A%20-%20AC%20CORPORATIVA,CN=snt0053,CN=CDP, CN=Public%20Key%20Services,CN=Services,CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList?base?objectclass= cRLDistributionPoint (2) LDAP: ldap://pkildap.bde.es/CN=CRL,CN=BANCO%20DE%20ESPA%D1A-AC%20CORPORATIVA, CN=Internas, CN=PKI, CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList ?base ?objectclass=cRLDistributionPoint (3)HTTP http://pki.bde.es/certs/ACcorporativa.crl	NO
13. Auth. Information Access	OCSP http://pkiva.bde.es CA http://pki.bde.es/certs/ACraiz.crt	NO
14.netscapeCertType	Not applicable	
15. netscapeRevocationURL	Not applicable	
16. netscapeCAPolicyURL	Not applicable	
17. netscapeComment	Not applicable	
18. bdeCertType (1.3.6.1.4.1.19484.2.3.6)	AUTENTICACION	

7.1.2.2 Electronic signature certificate

Electronic signature certificate		
FIELD	**CONTENT**	**CRITICAL for extensions**
Fields X509v1		
1. Version	V3	
2. Serial Number	Random	
3. Signature Algorithm	SHA-1WithRSAEncryption	
4. Issuer Distinguished Name	CN=BANCO DE ESPAÑA – AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES	
5. Lifetime	4 years	
6. Subject	CN=[F] Name Surname 1 Surname 2 SerialNumber= Identity Document PS=User Code OU=PERSONAS O=BANCO DE ESPAÑA C=ES	
7. Subject Public Key Info	Algorithm: RSA Encryption Minimum Key Length: 2048(big string)	
Fields X509v2		
1. issuerUniqueIdentifier	Not used	
2. subjectUniqueIdentifier	Not used	
X509v3 extensions		
1. Subject Key Identifier	Derived from using the SHA-1 hash on the subject's public key.	NO
2. Authority Key Identifier		
keyIdentifier	Derived from using the SHA-1 hash on the issuing CA's public key. (c2 45 2b f4 f9 92 ee 33 59 98 e1 82 75 6b 8c bc d0 b6 e5 c1)	
authorityCertIssuer	CN=BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA C=ES	
authorityCertSerialNumber	36 6a 52 4d a5 e4 4a f8 41 08 a1 40 9b 9b 76 eb	
3. KeyUsage		YES
Digital Signature	0	
Non Repudiation	1	
Key Encipherment	0	
Data Encipherment	0	
Key Agreement	0	
Key Certificate Signature	0	
CRL Signature	0	
4. extKeyUsage	emailProtection, anyExtendedKeyUsage	NO
5. privateKeyUsagePeriod	Not used	
6. Certificate Policies		NO
Policy Identifier	1.3.6.1.4.1.19484.2.2.1	
URL CPS	http://pki.bde.es/politicas	
Notice Reference	Certificado Reconocido según la legislación vigente. Uso sujeto a la DPC del Banco de España. © 2014 Banco de España. Todos los derechos reservados. (C/Alcalá 48, 28014 Madrid-España)	
Policy Identifier	1.3.6.1.4.1.19484.2.2.12	

Notice Reference	Certificado personal de firma electrónica sujeto a la Declaración de Prácticas de Certificación del Banco de España. ©2014 Banco de España. Todos los derechos reservados	
7.Policy Mappings	Not used	
8. qcStatements	Id-etsi-qcs-QcCompliance (OID 0.4.0.1862.1.1)	
9. Subject Alternate Names	E-mail address pursuant to RFC 822 1.3.6.1.4.1.19484.2.3.1 Name 1.3.6.1.4.1.19484.2.3.2 Surname1 1.3.6.1.4.1.19484.2.3.3 Surname2 1.3.6.1.4.1.19484.2.3.4 BDE employee no. 1.3.6.1.4.1.19484.2.3.5 BDE User Code 1.3.6.1.4.1.19484.2.3.7 Identity Document	NO
10. Issuer Alternate Names	Not used	
11. Subject Directory Attributes	Not used	
12. Basic Constraints	CA	YES
Subject Type	End Entity	
Path Length Constraint	Not used	
13. CRLDistributionPoints	(1) Active Directory: ldap:///CN=BANCO%20 DE%20ESPA%D1A%20-%20AC%20CORPORATIVA,CN=snt0053,CN=CDP, CN=Public%20Key%20Services,CN=Services,CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList?base?objectclass= cRLDistributionPoint (2) LDAP: ldap://pkildap.bde.es/CN=CRL,CN=BANCO%20DE%20ESPA%D1A-AC%20CORPORATIVA, CN=Internas, CN=PKI, CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList ?base ?objectclass=cRLDistributionPoint (3)HTTP http://pki.bde.es/certs/ACcorporativa.crl	NO
14. Auth. Information Access	OCSP http://pkiva.bde.es CA http://pki.bde.es/certs/ACraiz.crt	NO
15.netscapeCertType	Not applicable	
16. netscapeRevocationURL	Not applicable	
17. netscapeCAPolicyURL	Not applicable	
18. netscapeComment	Not applicable	
19. bdeCertType (1.3.6.1.4.1.19484.2.3.6)	FIRMA	

7.1.2.3 Encryption certificate recoverable in software

Encryption certificate recoverable in software		
FIELD	**CONTENT**	**CRITICAL for extensions**
Fields X509v1		
1. Version	V3	
2. Serial Number	Random	
3. Signature Algorithm	SHA-1WithRSAEncryption	
4. Issuer Distinguished Name	CN=BANCO DE ESPAÑA – AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES	
5. Lifetime	4 years	
6. Subject	In the case of Banco de España's employees: CN=[C] Name Surname 1 Surname 2 SerialNumber= Identity Document PS=User Code OU=PERSONAS O=BANCO DE ESPAÑA C=ES In the case of subcontractor companies' employees: CN=[C] Nombre Apellido1 Apellido 2 SerialNumber= Documento Identificación PS=User Code OU=PERSONAS OU=EMPRESAS EXTERNAS O=BANCO DE ESPAÑA C=ES	
7. Subject Public Key Info	Algorithm: RSA Encryption Minimum Key Length: 2048(big string)	
Fields X509v2		
1. issuerUniqueIdentifier	Not used	
2. subjectUniqueIdentifier	Not used	
X509v3 extensions		
1. Subject Key Identifier	Derived from using the SHA-1 hash on the subject's public key.	NO
2. Authority Key Identifier		
keyIdentifier	Derived from using the SHA-1 hash on the issuing CA's public key. (c2 45 2b f4 f9 92 ee 33 59 98 e1 82 75 6b 8c bc d0 b6 e5 c1)	
authorityCertIssuer	CN=BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA C=ES	
authorityCertSerialNumber	36 6a 52 4d a5 e4 4a f8 41 08 a1 40 9b 9b 76 eb	
3. KeyUsage		YES
Digital Signature	0	
Non Repudiation	0	
Key Encipherment	1	
Data Encipherment	1	
Key Agreement	0	
Key Certificate Signature	0	
CRL Signature	0	
4. extKeyUsage	emailProtection, anyExtendedKeyUsage	NO
5. privateKeyUsagePeriod	Not used	

6. Certificate Policies		NO
Policy Identifier	1.3.6.1.4.1.19484.2.2.1	
URL CPS	http://pki.bde.es/politicas	
Notice Reference	Certificado sujeto a: Declaración de Prácticas de Certificación del Banco de España. © 2014 Banco de España. Todos los derechos reservados. (C/Alcalá 48, 28014 Madrid-España)	
Policy Identifier	1.3.6.1.4.1.19484.2.2.17	
Notice Reference	Certificado personal de cifrado recuperable en software sujeto a la Declaración de Prácticas de Certificación del Banco de España. ©2014 Banco de España. Todos los derechos reservados	
7.Policy Mappings	Not used	
8. Subject Alternate Names	E-mail address pursuant to RFC 822 1.3.6.1.4.1.19484.2.3.1 Name 1.3.6.1.4.1.19484.2.3.2 Surname1 1.3.6.1.4.1.19484.2.3.3 Surname2 1.3.6.1.4.1.19484.2.3.4 BDE employee no. 1.3.6.1.4.1.19484.2.3.5 BDE User Code 1.3.6.1.4.1.19484.2.3.7 Identity Document 1.3.6.1.4.1.19484.2.3.15 ID for subcontractors [5]	NO
9. Issuer Alternate Names	Not used	
10. Subject Directory Attributes	Not used	
11. Basic Constraints	CA	YES
Subject Type	End Entity	
Path Length Constraint	Not used	
12. CRLDistributionPoints	(1) Active Directory: ldap:///CN=BANCO%20 DE%20ESPA%D1A%20-%20AC%20CORPORATIVA,CN=snt0053,CN=CDP, CN=Public%20Key%20Services,CN=Services,CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList?base?objectclass= cRLDistributionPoint (2) LDAP: ldap://pkildap.bde.es/CN=CRL,CN=BANCO%20DE%20ESPA%D1A-AC%20CORPORATIVA, CN=Internas, CN=PKI, CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList ?base ?objectclass=cRLDistributionPoint (3)HTTP http://pki.bde.es/certs/ACcorporativa.crl	NO
13. Auth. Information Access	OCSP http://pkiva.bde.es CA http://pki.bde.es/certs/ACraiz.crt	NO
14.netscapeCertType	Not applicable	
15. netscapeRevocationURL	Not applicable	
16. netscapeCAPolicyURL	Not applicable	
17. netscapeComment	Not applicable	
18. bdeCertType (1.3.6.1.4.1.19484.2.3.6)	CIFRADO	

[5]This attribute shall be included solely in personal certificates issued by PKIBDE for contracted company personnel. Enables differentiation of subscribers that belong to this group.

7.1.2.4 Encryption certificate (obsolete)

Encryption certificate (obsolete)		
FIELD	**CONTENT**	**CRITICAL for extensions**
Fields X509v1		
1. Version	V3	
2. Serial Number	Random	
3. Signature Algorithm	SHA-1WithRSAEncryption	
4. Issuer Distinguished Name	CN=BANCO DE ESPAÑA – AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES	
5. Lifetime	4 years	
6. Subject	In the case of Banco de España's employees: CN=[C] Name Surname 1 Surname 2 SerialNumber= Identity Document PS=User Code OU=PERSONAS O=BANCO DE ESPAÑA C=ES In the case of subcontractor companies' employees: CN=[C] Nombre Apellido1 Apellido 2 SerialNumber= Documento Identificación PS=User Code OU=PERSONAS OU=EMPRESAS EXTERNAS O=BANCO DE ESPAÑA C=ES	
7. Subject Public Key Info	Algorithm: RSA Encryption Minimum Key Length: 1024(big string)	
Fields X509v2		
1. issuerUniqueIdentifier	Not used	
2. subjectUniqueIdentifier	Not used	
X509v3 extensions		
1. Subject Key Identifier	Derived from using the SHA-1 hash on the subject's public key.	NO
2. Authority Key Identifier		
keyIdentifier	Derived from using the SHA-1 hash on the issuing CA's public key. (c2 45 2b f4 f9 92 ee 33 59 98 e1 82 75 6b 8c bc d0 b6 e5 c1)	
authorityCertIssuer	CN=BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA C=ES	
authorityCertSerialNumber	36 6a 52 4d a5 e4 4a f8 41 08 a1 40 9b 9b 76 eb	
3. KeyUsage		YES
Digital Signature	0	
Non Repudiation	0	
Key Encipherment	1	
Data Encipherment	1	
Key Agreement	0	
Key Certificate Signature	0	
CRL Signature	0	
4. extKeyUsage	emailProtection, anyExtendedKeyUsage	NO
5. privateKeyUsagePeriod	Not used	

6. Certificate Policies		NO
Policy Identifier	1.3.6.1.4.1.19484.2.2.1	
URL CPS	http://pki.bde.es/politicas	
Notice Reference	Certificado sujeto a: Declaración de Prácticas de Certificación del Banco de España. © 2014 Banco de España. Todos los derechos reservados. (C/Alcalá 48, 28014 Madrid-España)	
Policy Identifier	1.3.6.1.4.1.19484.2.2.8	
Notice Reference	Certificado personal de cifrado sujeto a la Declaración de Prácticas de Certificación del Banco de España. ©2014 Banco de España. Todos los derechos reservados	
7.Policy Mappings	Not used	
8. Subject Alternate Names	E-mail address pursuant to RFC 822 1.3.6.1.4.1.19484.2.3.1 Name 1.3.6.1.4.1.19484.2.3.2 Surname1 1.3.6.1.4.1.19484.2.3.3 Surname2 1.3.6.1.4.1.19484.2.3.4 BDE employee no. 1.3.6.1.4.1.19484.2.3.5 BDE User Code 1.3.6.1.4.1.19484.2.3.7 Identity Document 1.3.6.1.4.1.19484.2.3.15 ID for subcontractors [6]	NO
9. Issuer Alternate Names	Not used	
10. Subject Directory Attributes	Not used	
11. Basic Constraints	CA	YES
Subject Type	End Entity	
Path Length Constraint	Not used	
12. CRLDistributionPoints	(1) Active Directory: ldap:///CN=BANCO%20 DE%20ESPA%D1A%20-%20AC%20CORPORATIVA,CN=snt0053,CN=CDP, CN=Public%20Key%20Services,CN=Services,CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList?base?objectclass= cRLDistributionPoint (2) LDAP: ldap://pkildap.bde.es/CN=CRL,CN=BANCO%20DE%20ESPA%D1A-AC%20CORPORATIVA, CN=Internas, CN=PKI, CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList ?base ?objectclass=cRLDistributionPoint (3)HTTP http://pki.bde.es/certs/ACcorporativa.crl	NO
13. Auth. Information Access	OCSP http://pkiva.bde.es CA http://pki.bde.es/certs/ACraiz.crt	NO
14.netscapeCertType	Not applicable	
15. netscapeRevocationURL	Not applicable	
16. netscapeCAPolicyURL	Not applicable	
17. netscapeComment	Not applicable	
18. bdeCertType (1.3.6.1.4.1.19484.2.3.6)	CIFRADO	

[6] This attribute shall be included solely in personal certificates issued by PKIBDE for contracted company personnel. Enables differentiation of subscribers that belong to this group.

7.1.2.5 Administrator certificate

Administrator certificate		
FIELD	**CONTENT**	**CRITICAL for extensions**
Fields X509v1		
1. Version	V3	
2. Serial Number	Random	
3. Signature Algorithm	SHA-1WithRSAEncryption	
4. Issuer Distinguished Name	CN=BANCO DE ESPAÑA – AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES	
5. Lifetime	4 years	
6. Subject	In the case of Banco de España's employees: CN=[X] Name Surname 1 Surname 2 SerialNumber= Identity Document PS=User Code OU=PERSONAS O=BANCO DE ESPAÑA C=ES In the case of subcontractor companies' employees: CN=[X] Nombre Apellido1 Apellido 2 SerialNumber= Documento Identificación PS=User Code OU=PERSONAS OU=EMPRESAS EXTERNAS O=BANCO DE ESPAÑA C=ES	
7. Subject Public Key Info	Algorithm: RSA Encryption Minimum Key Length: 2048(big string)	
Fields X509v2		
1. issuerUniqueIdentifier	Not used	
2. subjectUniqueIdentifier	Not used	
X509v3 extensions		
1. Subject Key Identifier	Derived from using the SHA-1 hash on the subject's public key.	NO
2. Authority Key Identifier		
keyIdentifier	Derived from using the SHA-1 hash on the issuing CA's public key. (c2 45 2b f4 f9 92 ee 33 59 98 e1 82 75 6b 8c bc d0 b6 e5 c1)	
authorityCertIssuer	CN=BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA C=ES	
authorityCertSerialNumber	36 6a 52 4d a5 e4 4a f8 41 08 a1 40 9b 9b 76 eb	
3. KeyUsage		YES
Digital Signature	1	
Non Repudiation	0	
Key Encipherment	0	
Data Encipherment	0	
Key Agreement	1	
Key Certificate Signature	0	
CRL Signature	0	
4. extKeyUsage	clientAuth, smartCardLogon, anyExtendedKeyUsage, emailProtection	NO
5. privateKeyUsagePeriod	Not used	

6. Certificate Policies		NO
Policy Identifier	1.3.6.1.4.1.19484.2.2.1	
URL CPS	http://pki.bde.es/politicas	
Notice Reference	Certificado sujeto a: Declaración de Prácticas de Certificación del Banco de España. © 2014 Banco de España. Todos los derechos reservados. (C/Alcalá 48, 28014 Madrid-España)	
Policy Identifier	1.3.6.1.4.1.19484.2.2.15	
Notice Reference	Certificado de administrador sujeto a la Declaración de Prácticas de Certificación del Banco de España. ©2014 Banco de España. Todos los derechos reservados	
7.Policy Mappings	Not used	
8. Subject Alternate Names	UPN (User's Principal Name in Windows 2000) E-mail address pursuant to RFC 822 1.3.6.1.4.1.19484.2.3.1 Name 1.3.6.1.4.1.19484.2.3.2 Surname1 1.3.6.1.4.1.19484.2.3.3 Surname2 1.3.6.1.4.1.19484.2.3.4 BDE employee no. 1.3.6.1.4.1.19484.2.3.5 BDE User Code 1.3.6.1.4.1.19484.2.3.7 Identity Document 1.3.6.1.4.1.19484.2.3.15 ID for subcontractors [7]	NO
9. Issuer Alternate Names	Not used	
10. Subject Directory Attributes	Not used	
11. Basic Constraints	CA	YES
Subject Type	End Entity	
Path Length Constraint	Not used	
12. CRLDistributionPoints	(1) Active Directory: ldap:///CN=BANCO%20 DE%20ESPA%D1A%20-%20AC%20CORPORATIVA,CN=snt0053,CN=CDP, CN=Public%20Key%20Services,CN=Services,CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList?base?objectclass= cRLDistributionPoint (2) LDAP: ldap://pkildap.bde.es/CN=CRL,CN=BANCO%20DE%20ESPA%D1A-AC%20CORPORATIVA, CN=Internas, CN=PKI, CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList ?base ?objectclass=cRLDistributionPoint (3)HTTP http://pki.bde.es/certs/ACcorporativa.crl	NO
13. Auth. Information Access	OCSP http://pkiva.bde.es CA http://pki.bde.es/certs/ACraiz.crt	NO
14.netscapeCertType	Not applicable	
15. netscapeRevocationURL	Not applicable	
16. netscapeCAPolicyURL	Not applicable	
17. netscapeComment	Not applicable	
18. bdeCertType (1.3.6.1.4.1.19484.2.3.6)	ADMINISTRADOR	

[7] This attribute shall be included solely in personal certificates issued by PKIBDE for contracted company personnel. Enables differentiation of subscribers that belong to this group.

7.1.2.6 Provisional authentication certificate

Provisional authentication certificate		
FIELD	**CONTENT**	**CRITICAL for extensions**
Fields X509v1		
1. Version	V3	
2. Serial Number	Random	
3. Signature Algorithm	SHA-1WithRSAEncryption	
4. Issuer Distinguished Name	CN=BANCO DE ESPAÑA – AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES	
5. Lifetime	7 days (maximum)	
6. Subject	In the case of Banco de España's employees: CN=[A] Name Surname 1 Surname 2 SerialNumber= Identity Document PS=User Code OU=PERSONAS O=BANCO DE ESPAÑA C=ES In the case of subcontractor companies' employees: CN=[A] Nombre Apellido1 Apellido 2 SerialNumber= Documento Identificación PS=User Code OU=PERSONAS OU=EMPRESAS EXTERNAS O=BANCO DE ESPAÑA C=ES	
7. Subject Public Key Info	Algorithm: RSA Encryption Minimum Key Length: 2048(big string)	
Fields X509v2		
1. issuerUniqueIdentifier	Not used	
2. subjectUniqueIdentifier	Not used	
X509v3 extensions		
1. Subject Key Identifier	Derived from using the SHA-1 hash on the subject's public key.	NO
2. Authority Key Identifier		
keyIdentifier	Derived from using the SHA-1 hash on the issuing CA's public key. (c2 45 2b f4 f9 92 ee 33 59 98 e1 82 75 6b 8c bc d0 b6 e5 c1)	
authorityCertIssuer	CN=BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA C=ES	
authorityCertSerialNumber	36 6a 52 4d a5 e4 4a f8 41 08 a1 40 9b 9b 76 eb	
3. KeyUsage		YES
Digital Signature	1	
Non Repudiation	0	
Key Encipherment	0	
Data Encipherment	0	
Key Agreement	1	
Key Certificate Signature	0	

CRL Signature	0	
4. extKeyUsage	clientAuth, smartCardLogon, anyExtendedKeyUsage, emailProtection[8]	NO
5. privateKeyUsagePeriod	Not used	
6. Certificate Policies		NO
Policy Identifier	1.3.6.1.4.1.19484.2.2.1	
URL CPS	http://pki.bde.es/politicas	
Notice Reference	Certificado sujeto a: Declaración de Prácticas de Certificación del Banco de España. © 2014 Banco de España. Todos los derechos reservados. (C/Alcalá 48, 28014 Madrid-España)	
Policy Identifier	1.3.6.1.4.1.19484.2.2.13	
Notice Reference	Certificado provisional de autenticación sujeto a la Declaración de Prácticas de Certificación del Banco de España. ©2014 Banco de España. Todos los derechos reservados	
7.Policy Mappings	Not used	
8. Subject Alternate Names	UPN (User's Principal Name in Windows 2000) E-mail address pursuant to RFC 822 1.3.6.1.4.1.19484.2.3.1 Name 1.3.6.1.4.1.19484.2.3.2 Surname1 1.3.6.1.4.1.19484.2.3.3 Surname2 1.3.6.1.4.1.19484.2.3.4 BDE employee no. 1.3.6.1.4.1.19484.2.3.5 BDE User Code 1.3.6.1.4.1.19484.2.3.7 Identity Document 1.3.6.1.4.1.19484.2.3.15 ID for subcontractors [9]	NO
9. Issuer Alternate Names	Not used	
10. Subject Directory Attributes	Not used	
11. Basic Constraints	CA	YES
Subject Type	End Entity	
Path Length Constraint	Not used	
12. CRLDistributionPoints	(1) Active Directory: ldap:///CN=BANCO%20 DE%20ESPA%D1A%20-%20AC%20CORPORATIVA,CN=snt0053,CN=CDP, CN=Public%20Key%20Services,CN=Services,CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList?base?objectclass= cRLDistributionPoint (2) LDAP: ldap://pkildap.bde.es/CN=CRL,CN=BANCO%20DE%20ESPA%D1A-AC%20CORPORATIVA, CN=Internas, CN=PKI, CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList ?base ?objectclass=cRLDistributionPoint (3)HTTP http://pki.bde.es/certs/ACcorporativa.crl	NO
13. Auth. Information Access	OCSP http://pkiva.bde.es CA http://pki.bde.es/certs/ACraiz.crt	NO
14.netscapeCertType	Not applicable	
15. netscapeRevocationURL	Not applicable	
16. netscapeCAPolicyURL	Not applicable	
17. netscapeComment	Not applicable	
18. bdeCertType (1.3.6.1.4.1.19484.2.3.6)	AUTENTICACION-PROVISIONAL	

[8]This attribute shall be included solely in personal authentication certificates issued by PKIBDE for contracted company personnel.
[9]This attribute shall be included solely in personal certificates issued by PKIBDE for contracted company personnel. Enables differentiation of subscribers that belong to this group.

7.1.2.7 Provisional electronic signature certificate

Provisional electronic signature certificate		
FIELD	**CONTENT**	**CRITICAL for extensions**
Fields X509v1		
1. Version	V3	
2. Serial Number	Random	
3. Signature Algorithm	SHA-1WithRSAEncryption	
4. Issuer Distinguished Name	CN=BANCO DE ESPAÑA – AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES	
5. Lifetime	7 days (máximum)	
6. Subject	CN=[F] Name Surname 1 Surname 2 SerialNumber= Identity Document PS=User Code OU=PERSONAS O=BANCO DE ESPAÑA C=ES	
7. Subject Public Key Info	Algorithm: RSA Encryption Minimum Key Length: 2048(big string)	
Fields X509v2		
1. issuerUniqueIdentifier	Not used	
2. subjectUniqueIdentifier	Not used	
X509v3 extensions		
1. Subject Key Identifier	Derived from using the SHA-1 hash on the subject's public key.	NO
2. Authority Key Identifier		
keyIdentifier	Derived from using the SHA-1 hash on the issuing CA's public key. (c2 45 2b f4 f9 92 ee 33 59 98 e1 82 75 6b 8c bc d0 b6 e5 c1)	
authorityCertIssuer	CN=BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA C=ES	
authorityCertSerialNumber	36 6a 52 4d a5 e4 4a f8 41 08 a1 40 9b 9b 76 eb	
3. KeyUsage		YES
Digital Signature	0	
Non Repudiation	1	
Key Encipherment	0	
Data Encipherment	0	
Key Agreement	0	
Key Certificate Signature	0	
CRL Signature	0	
4. extKeyUsage	emailProtection, anyExtendedKeyUsage	NO
5. privateKeyUsagePeriod	Not used	
6. Certificate Policies		NO
Policy Identifier	1.3.6.1.4.1.19484.2.2.1	
URL CPS	http://pki.bde.es/politicas	
Notice Reference	Certificado Reconocido según la legislación vigente. Uso sujeto a la DPC del Banco de España. @2014 Banco de España. Todos los derechos reservados (C/Alcalá 48, 28014 Madrid-España)	
Policy Identifier	1.3.6.1.4.1.19484.2.2.10	

Notice Reference	Certificado personal de firma provisional sujeto a la Declaración de Prácticas de Certificación del Banco de España. ©2004 Banco de España. Todos los derechos reservados	
7.Policy Mappings	Not used	
8. qcStatements	Id-etsi-qcs-QcCompliance (OID 0.4.0.1862.1.1)	
9. Subject Alternate Names	E-mail address pursuant to RFC 822 1.3.6.1.4.1.19484.2.3.1 Name 1.3.6.1.4.1.19484.2.3.2 Surname1 1.3.6.1.4.1.19484.2.3.3 Surname2 1.3.6.1.4.1.19484.2.3.4 BDE employee no. 1.3.6.1.4.1.19484.2.3.5 BDE User Code 1.3.6.1.4.1.19484.2.3.7 Identity Document	NO
10. Issuer Alternate Names	Not used	
11. Subject Directory Attributes	Not used	
12. Basic Constraints	CA	YES
Subject Type	End Entity	
Path Length Constraint	Not used	
13. CRLDistributionPoints	(1) Active Directory: ldap:///CN=BANCO%20 DE%20ESPA%D1A%20-%20AC%20CORPORATIVA,CN=snt0053,CN=CDP, CN=Public%20Key%20Services,CN=Services,CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList?base?objectclass= cRLDistributionPoint (2) LDAP: ldap://pkildap.bde.es/CN=CRL,CN=BANCO%20DE%20ESPA%D1A-AC%20CORPORATIVA, CN=Internas, CN=PKI, CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList ?base ?objectclass=cRLDistributionPoint (3)HTTP http://pki.bde.es/certs/ACcorporativa.crl	NO
14. Auth. Information Access	OCSP http://pkiva.bde.es CA http://pki.bde.es/certs/ACraiz.crt	NO
15.netscapeCertType	Not applicable	
16. netscapeRevocationURL	Not applicable	
17. netscapeCAPolicyURL	Not applicable	
18. netscapeComment	Not applicable	
19. bdeCertType (1.3.6.1.4.1.19484.2.3.6)	FIRMA-PROVISIONAL	

7.1.2.8 Provisional administrator certificate

Provisional administrator certificate		
FIELD	**CONTENT**	**CRITICAL for extensions**
Fields X509v1		
1. Version	V3	
2. Serial Number	Random	
3. Signature Algorithm	SHA-1WithRSAEncryption	
4. Issuer Distinguished Name	CN=BANCO DE ESPAÑA – AC CORPORATIVA, O=BANCO DE ESPAÑA, C=ES	
5. Lifetime	7 days (máximum)	
6. Subject	In the case of Banco de España's employees: CN=[X] Name Surname 1 Surname 2 SerialNumber= Identity Document PS=User Code OU=PERSONAS O=BANCO DE ESPAÑA C=ES In the case of subcontractor companies' employees: CN=[X] Nombre Apellido1 Apellido 2 SerialNumber= Documento Identificación PS=User Code OU=PERSONAS OU=EMPRESAS EXTERNAS O=BANCO DE ESPAÑA C=ES	
7. Subject Public Key Info	Algorithm: RSA Encryption Minimum Key Length: 2048(big string)	
Fields X509v2		
1. issuerUniqueIdentifier	Not used	
2. subjectUniqueIdentifier	Not used	
X509v3 extensions		
1. Subject Key Identifier	Derived from using the SHA-1 hash on the subject's public key.	NO
2. Authority Key Identifier		
keyIdentifier	Derived from using the SHA-1 hash on the issuing CA's public key. (c2 45 2b f4 f9 92 ee 33 59 98 e1 82 75 6b 8c bc d0 b6 e5 c1)	
authorityCertIssuer	CN=BANCO DE ESPAÑA-AC RAIZ, O=BANCO DE ESPAÑA C=ES	
authorityCertSerialNumber	36 6a 52 4d a5 e4 4a f8 41 08 a1 40 9b 9b 76 eb	
3. KeyUsage		YES
Digital Signature	1	
Non Repudiation	0	
Key Encipherment	0	
Data Encipherment	0	
Key Agreement	1	
Key Certificate Signature	0	
CRL Signature	0	
4. extKeyUsage	clientAuth, smartCardLogon, anyExtendedKeyUsage, emailProtection	NO
5. privateKeyUsagePeriod	Not used	

6. Certificate Policies		NO
Policy Identifier	1.3.6.1.4.1.19484.2.2.1	
URL CPS	http://pki.bde.es/politicas	
Notice Reference	Certificado sujeto a: Declaración de Prácticas de Certificación del Banco de España. © 2014 Banco de España. Todos los derechos reservados. (C/Alcalá 48, 28014 Madrid-España)	
Policy Identifier	1.3.6.1.4.1.19484.2.2.16	
Notice Reference	Certificado provisional de administrador sujeto a la Declaración de Prácticas de Certificación del Banco de España. ©2014 Banco de España. Todos los derechos reservados	
7.Policy Mappings	Not used	
8. Subject Alternate Names	UPN (User's Principal Name in Windows 2000) E-mail address pursuant to RFC 822 1.3.6.1.4.1.19484.2.3.1 Name 1.3.6.1.4.1.19484.2.3.2 Surname1 1.3.6.1.4.1.19484.2.3.3 Surname2 1.3.6.1.4.1.19484.2.3.4 BDE employee no. 1.3.6.1.4.1.19484.2.3.5 BDE User Code 1.3.6.1.4.1.19484.2.3.7 Identity Document 1.3.6.1.4.1.19484.2.3.15 ID for subcontractors [10]	NO
9. Issuer Alternate Names	Not used	
10. Subject Directory Attributes	Not used	
11. Basic Constraints	CA	YES
Subject Type	End Entity	
Path Length Constraint	Not used	
12. CRLDistributionPoints	(1) Active Directory: ldap:///CN=BANCO%20 DE%20ESPA%D1A%20-%20AC%20CORPORATIVA,CN=snt0053,CN=CDP, CN=Public%20Key%20Services,CN=Services,CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList?base?objectclass= cRLDistributionPoint (2) LDAP: ldap://pkildap.bde.es/CN=CRL,CN=BANCO%20DE%20ESPA%D1A-AC%20CORPORATIVA, CN=Internas, CN=PKI, CN=Configuration, DC=BDE, DC=ES ?certificateRevocationList ?base ?objectclass=cRLDistributionPoint (3)HTTP http://pki.bde.es/certs/ACcorporativa.crl	NO
13. Auth. Information Access	OCSP http://pkiva.bde.es CA http://pki.bde.es/certs/ACraiz.crt	NO
14.netscapeCertType	Not applicable	
15. netscapeRevocationURL	Not applicable	
16. netscapeCAPolicyURL	Not applicable	
17. netscapeComment	Not applicable	
18. bdeCertType (1.3.6.1.4.1.19484.2.3.6)	ADMINISTRADOR-PROVISIONAL	

[10] This attribute shall be included solely in personal certificates issued by PKIBDE for contracted company personnel. Enables differentiation of subscribers that belong to this group.

7.1.3 Algorithm Object Identifiers (OID)

Cryptographic algorithm object identifiers (OID):
SHA-1 with RSA Encryption (1.2.840.113549.1.1.5)

7.1.4 Name formats

Certificates issued by PKIBDE contain the X.500 distinguished name of the certificate issuer and that of the subject in the issuer name and subject name fields, respectively.

7.1.5 Name constraints

See section 3.1.1.

7.1.6 Certificate Policy Object Identifiers (OID)

The OID of this CP is 1.3.6.1.4.1.19484.2.2.20. An X.Y format extension is added to indicate the version.

The OIDs of the certificates regulated in this PC are the following:

- 1.3.6.1.4.1.19484.2.2.6: Certificate Policy of authentication certificates
- 1.3.6.1.4.1.19484.2.2.12: Certificate Policy of electronic signature certificates
- 1.3.6.1.4.1.19484.2.2.17: Certificate Policy of encryption software recoverable certificates
- 1.3.6.1.4.1.19484.2.2.8: Certificate Policy of encryption certificates (obsolete)
- 1.3.6.1.4.1.19484.2.2.15: Certificate Policy of administrator certificates
- 1.3.6.1.4.1.19484.2.2.13: Certificate Policy of provisional authentication certificates
- 1.3.6.1.4.1.19484.2.2.10: Certificate Policy of provisional electronic signature certificates
- 1.3.6.1.4.1.19484.2.2.16: Certificate Policy of provisional administrator certificates

7.1.7 Use of the "PolicyConstraints" extension

No stipulation.

7.1.8 Syntax and semantics of the "PolicyQualifier

The Certificate Policies extension contains the following Policy Qualifiers:

- URL CPS: contains the URL to the CPS and to the CP that govern the certificate.
- Notice Reference: Text note that is displayed on the screen, upon request from an application or an individual, when a third party verifies a certificate.

The content for certificates regulated under this policy can be seen in point *7.1.2 Certificate extensions*.

7.1.9 Processing semantics for the critical "CertificatePolicy" extension

No stipulation.

7.2 CRL Profile

7.2.1 Version number

As specified in PKIBDE's CPS.

7.2.2 CRL and extensions

No stipulation.

7.3 OCSP Profile

7.3.1 Version number(s)

As specified in PKIBDE's CPS.

7.3.2 OCSP Extensions

As specified in PKIBDE's CPS.

8 Compliance Audit and Other Assessment

8.1 Frequency or Circumstances of Controls for each Authority
As specified in PKIBDE's CPS.

8.2 Identity/Qualifications of the Auditor
As specified in PKIBDE's CPS.

8.3 Relationship between the Assessor and the Entity being Assessed
As specified in PKIBDE's CPS.

8.4 Aspects Covered by Controls
As specified in PKIBDE's CPS.

8.5 Actions Taken as a Result of Deficiencies Found
As specified in PKIBDE's CPS.

8.6 Notification of the Results
As specified in PKIBDE's CPS.

9 Other Business and Legal Matters

9.1 Fees

9.1.1 Certificate issuance or renewal fees

No fees are applied for the issue or revocation of certificates under this Certificate Policy.

9.1.2 Certificate access fees

Access to certificates issued under this Policy is free of charge and, therefore, no fee is applicable to them.

9.1.3 Revocation or status information fees

Access to information on the status or revocation of the certificates is open and free of charge and, therefore, no fees are applicable.

9.1.4 Fees for other services, such as policy information

No fee shall be applied for information services on this policy, nor on any additional service that is known at the time of drawing up this document.

9.1.5 Refund policy

Given that there are no fees for this Certificate Policy, no refund policy is required.

9.2 Confidentiality of Business Information

9.2.1 Scope of confidential information

As specified in PKIBDE's CPS.

9.2.2 Non-confidential information

As specified in PKIBDE's CPS.

9.2.3 Duty to maintain professional secrecy

As specified in PKIBDE's CPS.

9.3 Privacy of Personal Information

9.3.1 Personal data protection policy

As specified in PKIBDE's CPS.

9.3.2 Information considered private

As specified in PKIBDE's CPS.

9.3.3 Information not classified as private

As specified in PKIBDE's CPS.

9.3.4 Responsibility to protect personal data

As specified in PKIBDE's CPS.

9.3.5 Notification of and consent to the use of personal data

As specified in PKIBDE's CPS.

9.3.6 Disclosure within legal proceedings

As specified in PKIBDE's CPS.

9.3.7 Other circumstances in which data may be made public

As specified in PKIBDE's CPS.

9.4 Intellectual Property Rights

As specified in PKIBDE's CPS.

9.5 Representations and Warranties

9.5.1 Obligations of the CA

As specified in PKIBDE's CPS.

The PKIBDE Corporate Certification Authority shall act linking a specific public key to its subscriber by way of the issue of an electronic certificate, all of this in accordance with the terms of this CP and the CPS.

The services provided by the CA in the context of this CP are the services of issue, renewal and revocation of internal user certificates, which are accessed by remote Administration Positions of the CA, deployed for said purpose.

9.5.2 Obligations of the RA

As specified in PKIBDE's CPS.

9.5.3 Obligations of certificate subscribers

As specified in PKIBDE's CPS.

9.5.4 Obligations of relying parties

As specified in PKIBDE's CPS.

9.5.5 Obligations of other participants

As specified in PKIBDE's CPS.

9.6 Disclaimers of Warranties

9.6.1 PKIBDE's liabilities

As specified in PKIBDE's CPS.

9.6.2 PKIBDE liability exemption

As specified in PKIBDE's CPS.

9.6.3 Scope of liability coverage

As specified in PKIBDE's CPS.

9.7 Limitations of Liability

As specified in PKIBDE's CPS.

9.8 Term and Termination

9.8.1 Term

This CP shall enter into force from the moment it is approved by the PAA and published in the PKIBDE repository.

This CP shall remain valid until such time as it is expressly terminated due to the issue of a new version, or upon re-key of the Corporate CA keys, at which time it is mandatory to issue a new version.

9.8.2 CP substitution and termination

This CP shall always be substituted by a new version, regardless of the importance of the changes carried out therein, meaning that it will always be applicable in its entirety.

When the CP is terminated, it will be withdrawn from the PKIBDE public repository, nevertheless it will be kept for 15 years.

9.8.3 Consequences of termination

The obligations and constraints established under this CP, referring to audits, confidential information, PKIBDE obligations and liabilities that came into being whilst it was in force shall continue to prevail following its substitution or termination with a new version in all terms which are not contrary to said new version.

9.9 Individual notices and communications with participants

As specified in PKIBDE's CPS.

9.10 Amendments

9.10.1 Amendment procedures

As specified in PKIBDE's CPS.

9.10.2 Notification period and mechanism

As specified in PKIBDE's CPS.

9.10.3 Circumstances in which the OID must be changed

As specified in PKIBDE's CPS.

9.11 Dispute Resolution Procedures

As specified in PKIBDE's CPS.

9.12 Governing Law

As specified in PKIBDE's CPS.

9.13 Compliance with Applicable Law

As specified in PKIBDE's CPS.

9.14 Miscellaneous Provisions

9.14.1 Entire agreement clause

As specified in PKIBDE's CPS.

9.14.2 Independence

Should any of the provisions of this CP be declared invalid, null or legally unenforceable, it shall be deemed as not included, unless said provisions were essential in such a way that excluding them from the CP would render the latter without legal effect.

9.14.3 Resolution through the courts

No stipulation.

9.15 Other Provisions

No stipulation.

10 Personal Data Protection

10.1 Data Protection Legal Scheme
As specified in PKIBDE's CPS.

10.2 File Creation and Registration
As specified in PKIBDE's CPS.

10.3 Personal Data Protection Act Security Document
As specified in PKIBDE's CPS.