

# **INFORMATION TECHNOLOGY COMMITTEE**

# **ESCB-PKI PROJECT**



## ESCB-PKI REGISTRATION AUTHORITY APPLICATION

KEY RECOVERY OFFICER'S MANUAL

VERSION 3.1

ECB-Restricted 07-Nov-2024 ECB - Restricted

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1.0	final	10.10.2012	Initial version
1.1	Final	15.04.2014	Update of the ESCB-PKI website
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3.1	Final	07.11.2024	Update http links to https

## **GLOSSARY AND ACRONYMS**

Acronym	Definition
CA	Certificate Authority
СВ	ESCB Central Bank (ECB or NCB)
СР	Certification Policy
CPS	Certification Practice Statement
CRL	Certificate Revocation List
ECB	European Central Bank
ESCR	European System of Central Banks, including the ECB and the NCBs of all States
LICE	member of the European Union (regardless of whether they use the Euro or not).
ESCB-PKI	European System of Central Banks - Public Key Infrastructure
IAM	Identity and Access Management
NCB	National Central Bank
PKI	Public Key Infrastructure
KRO	Key Recovery Officer
RA	Registration Authority

#### **1. INTRODUCTION**

This document aims at providing Key Recovery Officers (KRO) information on how to use the ESCB-PKI Registration Authority application to recover encryption keys.

### 1.1. THE KEY RECOVERY PROCESS

Key Recovery Officers (KROs) participate during the recovery of encryption key pairs from the Key Archive <u>when the owner of the key pair is not present</u>. This process is only available at those Central Banks that request the use of the Key Recovery service. Four-eye principle will always be required to recover any key pair and, therefore, there shall be at least two KROs at each CB as to carry away the process of Key recovery without the participation of the subscriber.

Recovery of encryption certificates requested by someone else than the certificate subscriber will involve the participation of, at least, **K** different KROs of the total **M** KROs available at the subscriber's Central Bank. The precise values for **K** and **M** will be determined by the Central Bank.

- **K** is the minimum number of KROs that MUST participate in a key recovery process
- M is the total number of KROs nominated at the Central bank

The KROs shall assume one o more of the following interim roles for every key recovery operation:

- The Requestor KRO will request the key recovery of an encryption key pair
- The Approver KROs endorse the recovery request placed by the Requestor KRO
- The **Operator KRO** recovers the key pair and stores it in a cryptographic token



In the example shown in the figure above, the procedure will be the following:

- One of the KROs, acting as a *Requestor KRO*, requests the key recovery of an encryption key pair that belongs to a particular subscriber from that Central Bank;
- All the KROs (5) from the CB receive an e-mail with one of the 5 pieces of a shared secret. It is required the participation of at least 3 KROs to get access to the encryption certificate. These 3 KROs will act as *Approver KROs*;

- One of the KROs, acting as the *Operator KRO* (cannot be the same that the Requestor KRO), introduces her piece of the shared secret and the shared secret of other 2 *Approver KROs*;
- The **Operator KRO** recovers the key pair and stores it in a cryptographic token.

#### 1.2. THE ESCB-PKI WEBSITE

From this Website you can have access to the ESCB-PKI services and you can also find additional information connected to certificate management, token management and Public Key Infrastructures.



Figure 2 - ESCB-PKI Website

To access to the ESCB-PKI services, open your web browser and type the following URL address, <u>https://pki.escb.eu/</u>. You will find the following information:

-	About ESCB-PKI	Generic information with regards to the ESCB-PKI services
_	Repository	ESCB-PKI public information: Certificate Practice Statement (CPS) document, Certificate Policy (CP) documents, Certificate Authority (CA) certificates, Certificate Revocation Lists (CRLs), etc.
-	Certificate management	ESCB-PKI Registration Authority application links and related guidelines
_	FAQ	Frequently Asked Questions
_	Support	Software needed to manage ESCB-PKI tokens and utilities to test ESCB-PKI certificates

#### 2. THE ESCB-PKI REGISTRATION AUTHORITY APPLICATION

#### 2.1. SYSTEM REQUIREMENTS

The following software is required to use the ESCB Registration Authority application:

- ESCB-PKI Smartcard drivers
- <u>Native application required to manage certificates in a smart card.</u>
- One of the following <u>web extensions</u> of your choice, according to your browser preferences:
  - o <u>Mozilla Firefox ESCB-PKI Certificate Enrollment extension</u>.
  - o <u>Chrome and Edge ESCB-PKI Certificate Enrollment extension</u>.

Instructions on the installation of the aforementioned software are available in the ESCB-PKI User guide - Browser configuration, which may be downloaded from the ESCB-PKI portal support area:

https://pki.escb.eu/epkweb/en/support.html

The following browsers have been thoroughly tested and are therefore recommended:

- Internet Explorer 11
- Google Chrome 94
- Mozilla Firefox 92
- Microsoft Edge 95

**Note.** - "JavaScript" and "Cookies" must be enabled in the web browser for the application to work properly.

#### 2.2. LAYOUT

Please be aware that two different ESCB-PKI services environments are reachable by ESCB-PKI customers: acceptance and production. Each environment has a different frame colour so the customer can easily tell the difference and use the one that better suits their intended usage; furthermore, the acceptance environment includes an acceptance label in the upper right position indicating that the acceptance environment is the one being accessed.



Figure 3 - Production frame

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After logging into RA application the following features will always be available to the user:

- A menu will be shown on the left frame to facilitate quick access to all available options
- A Lorout option in the upper-right corner to end the user session

ESCB-PKI EUROSYSTEM	ESCB Registration Authority	
MY CERTIFICATES	S Certificate Request List	esinfmpp   Locaul
User Details	User Details Certificate Package List Certificate Request List	Logou
Suspension Code	Mon User Information	

Figure 5 - Certificate Management

#### 2.3. ACCESS

In the ESCB-PKI Website click on the *Certificate management* tab. This page contains the list of the ESCB-PKI services available. Click the *Access with certificate* link available in the *Certificate management and other role-based operations* section



Figure 6 - ESCB-PKI Website - Registration Authority Application

Next sections of this document provide step by step instructions and background information on how to use the Registration Authority application to recover encryption keys.

#### 3. ESCB-PKI RA: KEY RECOVERY PROCESSES

Enter to the ESB-PKI Website and click on the *Certificate Management* link. You must use an advanced CAF-compliant certificate (i.e. your ESCB-PKI certificate) to authenticate.

If you have been granted the role of Key Recovery Officer (KRO) you may:

- Key recovery process
  - Initiate a key recovery process (create a key recovery request)
  - Cancel the request
  - $\circ \quad \mbox{Recover the keys and certificates} \\$
  - Other options available to KROs are:
    - Review the list of users pertaining to your organisation which have applied for ESCB-PKI certificates. For every user in the list you may perform the following operations.
      - Check the registered personal data
      - Check her/his requests
      - Check her/his certificates
    - $\circ$  ~ Check pending certificate requests for your Central Bank

**Note:** If you have been granted additional application roles in the ESCB-KI application, additional options may also be available.

#### Certificate management menu

ESCB-PKI	ESCB Registration Authority		
KRO Menu		💈 esinfmpp	Locout
D USERS	Registration Authority		
Search User	Welcome to the Registration Authority of the ESCB Public Key Infrastructure.		
Pending Request	For further information please visit the ESCB-PKI website.		
Pending Key Recovery requests	· · · ·		

#### Figure 7 - Certificate management

Three options will be available in the left frame menu:

Search users
 Pending Request
 To select users from your Central Bank
 Pending Key Recovery Request
 To show all pending key recovery requests from your Central Bank
 To show all pending key recovery requests from your Central Bank

Next sections of this document will further develop these three options.

#### 3.1. INITIATE A KEY RECOVERY REQUEST

1. From the *Search users* option you can find the user whose certificates you want to recover (see 4.1)

Search User Result						
Detail	First Name	Organisation	Email Address	ESCB UID	National Identity Numbe	
٩	APELLIDOS TRES, Usuariotres	Banco de España(ES)	usuario.tres@bde.es	t-esinfppr3		
٢	APELLIDO APELLIDO, Otro	Banco de España(ES)	otro.apellico@bde.es	t-esinfppr4		
٢	APELLIDOS REPES, Menganita	Banco de España(ES)	e-mai@empresas-externas.bde.es	t-esqlorcgx		
٢	ESPANOL DOS, Fulanito Dos	Banco de España(ES)	fulanito.dos@bde.es	t-esinfppr2		
۲	ESPANOL ONE, Fulanito	Banco de España(ES)	fulanito.uno@bde.es	t-esinfppr1		
۲	Integración lam, Pruebas	Banco de España(ES)	qlorcgx@correo.interno	t-espruebas	12345678	

Figure 8 - Organisation user list

- 2. From this list you can select any specific user in order to recover her/his certificates. Clicking on the eye icon ( () the user details will be displayed.
- 3. Select the *Certificate Package* tab. This tab shows all ESCB-PKI certificates currently associated with the user and the status of these certificates.

Certificate Request List						
	Name APELLIDOS	User In TRES. Usuariotres	nformation			
Certificate Request List						
	STANDARD	USER PENDING	15-02-2012 10:49:34	REMOTE	KEYCOMPROMISE	
٢	ADVANCED	COMPLETED	15-02-2012 10:48:54	REMOTE	KEYCOMPROMISE	
۲	ADVANCED	CANCELLED	13-02-2012 16:57:19	PRESENTIAL	KEYCOMPROMISE	

Figure 9 - Certificate list

4. Select the certificate package you want to recover. The certificate details will be presented

	Certificate Package Hi	istory		
		Cortificate Backage Information		
Policy	ADVANCED ARCHIV	ED ESCB POLICY		
Cryptographic Device	602130142089C643			
Expiration Date	05/07/2015			
Request Date	05/07/2012			
Certificate Package Status	REVOKED			
Cortificato List				
Certificate List				
Serial Num	ber	Template Name	Download	Recover keys Recover keys
Serial Numl	ber 15d2 E	Template Name	Download	Recover keys
Serial Numl 31193c8425b8574ff5bb7d1442a ba719f1ae9609e4ff5bb7c6a14	ber 45d2 E 6a80 E	Template Name ESCB AUTHENTICATION ESCB ARCHIVED ENCIPHERMENT	Download	Recover kevs

Figure 10 - Certificate details

5. Clicking on the **b** button in the certificate detail screen a key recovery process will be initiated and the following information will be presented:

Key recovery request					
Begin key recovery process					
Certificate details					
User name	APELLIDOS TRES, Usuariotres				
Certificate serial number	317fb56d2a93629951c183e7f3406a98				
CA number	63c2015488244a08c23496676a1c07bc2bf43e78				
Issue date	19/06/2013				
Expiration date	19/06/2016				
Certificate template	ESCB ARCHIVED ENCIPHERMENT				
	Comments for the request				
Comments	The user left the organisation and some CB information is encrypted				
	Type Download				
*Type Download	Token     Software				
	Accept Back to certificate package detail				

Figure 11 - Initiate a key recovery process

You must indicate in the comments field the reason for this key recovery process and how will the certificate download be managed, onto a token or using a PKCS#12 file, and press the *Accept* button.



Figure 12 - Key recovery request generated

A key recovery request will be generated and, at the same time, every nominated KRO in your organization will receive an e-mail inviting her/him to participate in this key recovery process.

Remember that, for this specific request, you are playing the role of the "requestor KRO" and therefore you will NOT be allowed to finalize the key recovery process.

Another KRO from your organization must enter to the system and process your request.

#### 3.2. APPROVE A TOKEN KEY RECOVERY REQUEST

Every nominated KRO at the Central Bank receives an e-mail with her secret share and her secret number to participate in the key recovery process.

Dear ESCB-PKI Key Recovery Officer,
The Key Recovery Officer t-esinfmpp has initiated a request to recover a copy of the encryption key of the user t-esinfppr4.
Please find below the information that you will need to participate in the key recovery process:
Secret number: 3 Secret share: 128243225465948307428086365520903784718
You can access the ESCB-PKI web interface in the following link:
https://a-ra-pki.escb.eu/epkmain/
You will need to authenticate with you ESCB-accepted certificate.
Best regards, The ESCB-PKI support team

Figure 13 - Mail to participate in the key recovery process

If you agree with the request and you want to participate in the process you may either process the request or communicate your shared secret to the KRO that will process it .

#### 3.3. APPROVE A SOFTWARE KEY RECOVERY REQUEST

Every nominated KRO at the Central Bank receives an e-mail informing a request has been created.

Dear Key Recovery Officer,

The Key Recovery Officer t-esinffic has initiated a request to recover a copy of the encryption key of the user t-esinffic (PKCS#12 file format).

The certificate recovery request has to be approved by at least another Key Recovery Officer. To do so, access the ESCB-PKI Registration Authority and press the button "process" for the desired PKCS#12 file, using the following link:

https://a-ra-pki.escb.eu/epkmain/

After the request has been approved by all the required Key Recovery Officers, those who have participated in the recovery process will be provided with a part of the PKCS#12 file password.

Figure 14 - Mail to participate in the key recovery process

**K** Key Recovery Officers will have to approve the request, by accessing the Registration Authority and pressing the Process button:

#### Request detail

Request data				
User name	APELLIDOS TRES, Usuariotres			
Requestor KRO	Millán Rodríguez, Jorge			
Request date	22/08/2018			
Comments	The user left the organisation and some CB information is encrypted			
	Certificate data			
Serial number	317fb56d2a93629951c183e7f3406a98			
Subject	CN=[ENC:K] Usuariotres APELLIDOS TRES,Pseudonym=t-esinfppr3,OU=Banco de España(ES),O=EUR OPEAN SYSTEM OF CENTRAL BANKS,C=ES			
Issue date	19/06/2013			
Expiration date	19/06/2016			
Template name	ESCB ARCHIVED ENCIPHERMENT			
Type Download	SOFTWARE			

Process Cancel Back to pending key recovery requests

The last required approval will be enough for the process to be completed. The PKCS#12 file will be sent by email to the last Key Recovery Officer who participated in the process. All the other participants will receive a section of the password needed to be able to use this PKCS#12 file:



#### 3.4. CANCEL A KEY RECOVERY REQUEST

1. From the *Pending Key recovery request list* option you can access to all pending key recovery requests for your Central Bank.

Key recovery request list						
Detail		Comments	4 7	User name		
۲	04/10/2012	The user left the organisation and some CB information is encryted	APELLI	DOS CUATRO, Usuariocuatro		

Figure 15 - Key recovery request list

2. Clicking on the I button further details of the request will be displayed. You may cancel the request clicking on the *Cancel* button.

	Request data
User name	APELLIDOS CUATRO, Usuariocuatro
Requestor KRO	VIDAL GONZALEZ, Esther
Request date	04/10/2012
Comments	The user left the organisation and some CB information is encryted
	Certificate data
Serial number	3ba719f1ae9609e4ff5bb7c6a146a80
Subject	CN=[ENC:K] Usuariocuatro APELLIDOS CUATRO.SERIALNUMBER=00000000T,Pseudonym=t-esinfppr4,OU=Banco de España(ES).O=EUROPEAN SYSTEM OF CENTRAL BANKS.C=ES
Issue date	05/07/2012
Expiration date	05/07/2015
Template name	ESCB ARCHIVED ENCIPHERMENT

Figure 16 - Key Recovery request detail (requestor KRO)

#### 3.5. PROCESS A PENDING TOKEN KEY RECOVERY REQUEST

1. From the *Pending Key recovery* request list option you can access to all pending key recovery requests for your Central Bank. If you are <u>NOT</u> the KRO who requested the key recovery you will be allowed to process it.

	Request data
User name	APELLIDOS CUATRO, Usuariocuatro
Requestor KRO	PENA PINON, Miguel
Request date	04/10/2012
Comments	Need to recover keys in a new card
	Certificate data
Serial number	b8280cd348bbc74ff5bbecad326d70
Subject	CN=[ENC:K] Usuariocuatro APELLIDOS CUATRO,SERIALNUMBER=00000001;Pseudonym=t-esinfppr4,OU=Banco de España (ES),O=EUROPEAN SYSTEM OF CENTRAL BANKS,C=ES
Issue date	05/07/2012
Expiration date	05/07/2015
Template name	ESCB ARCHIVED ENCIPHERMENT

2. The next figure shows the information displayed when the KRO clicks on the Process button

		Certificate data		
Seria	l number	b8280cd348bbc74ff5bbecad326d70		
	Subject	CN=[ENC:K] Usuariocuatro APELLIDOS CUATRO, SERIALNUMBER=00000000T, Pseudonym=t-esinfppr4, OU=Bi (ES), O=EUROPEAN SYSTEM OF CENTRAL BANKS, C=ES	anco de España	
Val	idity date	05/07/2012		
Expiration date		05/07/2015		
Template name		ESCB ARCHIVED ENCIPHERMENT		
Token seria	l number			
		KRO secrets		
Secret share			* Secret number	
Secret share			* Secret number	

Figure 18 - Process a Key Recovery request

- 3. To initiate the process you must complete the information marked with a \*
  - Token serial number
     Type the SN of the smart-card where the keys and certificate will be downloaded
  - Secret share Type the "secret share" received by one of the nominated KROs
  - Secret number Type the "secret number" associated to the "secret share"

The number of secret shares to be included will be equal to the minimum number of KRO (at least two) required by your organization to recover an encryption key.

		Certificate data	
5	Serial number	b8280cd348bbc74ff5bbecad326d70	
	Subject	CN=[ENC:K] Usuariocuatro APELLIDOS CUATRO,SERIALNUMBER=00000000T,Pseudonym=t-esinfppr4,OU=Banco de Es (ES),O=EUROPEAN SYSTEM OF CENTRAL BANKS,C=ES	aña
	Validity date	05/07/2012	
E	xpiration date	05/07/2015	
Te	mplate name	ESCB ARCHIVED ENCIPHERMENT	
* Token	serial number	99999999999C999	
		KRO secrets	
<ul> <li>Secret share</li> </ul>	120512782894	146323321952944003087051026 * Sec numb	et er
* Secret share	121379389538	5193084061084928566111114894 * Sec numb	et er

Figure 19 - Complete the Key Recovery request

4. Click on the *Accept* button. The key recovery process will be launched

The certi	ficate is going to be recovered.		
	Please insert the smart card and do process has been completed.	o not remove it until you see a message describing t	hat the
Click the	start button to initiate the process.		
		Status	
Step 0 - Pr	reliminary verifications		
Step 1 - Co	ertificate storage		
Step 2 - To	oken verification		

Figure 20 - Starting recovery process

5. Click on the *Start* button. The system will prompt you to enter the PIN of the token.

The certificate is going	to be recovered.		
A Please inser	the smart card and do not remo	ove it until you see a message describin	g that the
process has	been completed.		
lick the start button t	initiate the process.		
(	Verificación de PIN		
ep 0 - Preliminary ve	Introduzca PIN:	verifications successfully completed	
		tificate	
tep 1 - Certificate stor	Laura Consulta		

Figure 21 - Download keys and certificate

You will be informed when the keys and the certificate are recovered

	Status	
Step 0 - Preliminary verifications	Preliminary verifications successfully completed	
Step 1 - Certificate storage	Certificate successfully stored	0
Step 2 - Token verification	Token successfully verified	0

Figure 22 - Encryption key recovered

#### 4. ESCB-PKI RA: OTHER AVAILABLE OPTIONS

#### 4.1. SEARCH USERS

1. From the *Search users* option you can find the list of users pertaining to your organisation which have applied for ESCB-PKI certificates. Several filtering criteria can be applied to narrow the search.

Search User	
	Personal Data
First Name 🔍	
Middle name 🔍	
First surname 🔍	
Second surname 🔍	
National Identity Number 🔍	
Birth Date 🔍	
Birth Place 🔍	
	ESCB Data
Escb User ID 🔍	
Email address 🔍	
Employee Number 🔍	
Domestic User ID 🔍	
Organisation Select 🔍	Select organisation 🔻
Suffix Select 🔍	Select suffix 🔻
	Search user Cancel search

Figure 23 - Certificates management. Search user option

2. Press the *Search user* button



Figure 24 - Organisation user list

3. From this list you can select any specific user in order to recover her/his certificates. Clicking on the eye icon ( () the user details will be displayed.

Personal details	User Details Certificate Package List Certificate Request List Remuests	
	Personal Data	
	Manage certificates Figure 25 - User details	

The following operations may be executed:

- Check personal details (User Details Tab)
- Check certificates (Certificate Package List Tab)
- Check requests (Certificate Request List Tab)

### 4.1.1. USER DETAILS

Clicking on this tab it displays the user attributes (first name, surname, user-id, etc.) and the information of the organisation he belongs to.

ser Details Certificate Pa	uckage List Certificate Request List User History
	Personal Data
Escb User ID	t-espruebas
First Name	Pruebas
Middle name	
Surname	Integración lam
National Identity Number 12345678	
Birth Date	
Birth Place	
	ESCB Data
Escb User ID	t-espruebas
Email Address	qlorcgx@correo.interno
Employee Number	1234
Domestic UID	
0.00	

Figure 26 - User details

#### 4.1.2. CERTIFICATE PACKAGE LIST

This tab shows all ESCB-PKI certificates currently associated with the user and the status of these certificates. Possible statuses are:

- Active Certificates are valid
- **Revoked** Certificates cannot be used any more
- Suspended Certificates have been temporarily invalidated
- **Damaged** Certificates have been replaced due to damage (e.g. broken token)
- *Renewed* Certificates have been replaced due to expiration

) Certificate Request List						
Jser Details Certificate Package List Certificate Request List						
		User Ir	nformation			
	Name APELLIDOS TRES, Usuariotres					
🔊 Ce	rtificate Request List					
Detail	Certificate Package Type	Request Status	Request Date	IssuanceType	Operation Type	
Detail						
العام ال	STANDARD	USER PENDING	15-02-2012 10:49:34	REMOTE	KEYCOMPROMISE	
	STANDARD	USER PENDING COMPLETED	15-02-2012 10:49:34 15-02-2012 10:48:54	REMOTE REMOTE	KEYCOMPROMISE KEYCOMPROMISE	

Figure 27 - Certificate list

Certificates are grouped into "packages". A certificate package is a collection of certificates defined by a Certificate Policy; for instance, the "*advanced\_archived*" certificate package will contain the following certificates: advanced authentication, advanced signature and advanced encryption (with key recovery) certificates.

#### ECB - Restricted

Clicking on a certificate package you can have access to the certificate details:

Certificate Package Detail							
Certificate Package Detail	Certificate Package Histor	y					
	Cer	tificate Package Information					
Policy ADVANCED_ARCHIVED_E		ESCB_POLICY					
Cryptographic Device 602130142089C643							
Expiration Date 05/07/2015							
Request Date	05/07/2012						
Certificate Package Status	REVOKED						
Certificate List		Downlo	oad certificate	>			
Serial Numb	ber	Template Name	Bownload	Recover Keys			
f31f93c8425b8574ff5bb7d1442a5d2		B AUTHENTICATION			Recove	r kevs	>
3ba719f1ae9609e4ff5bb7c6a146a80		B ARCHIVED ENCIPHERMENT	4				
5281de7537d113654ff5bb7d5ea	Bec3e ESC	B NONSSCD SIGNATURE	J.	5			
				Back to certificate lis	t		

Figure 28 - Certificate details

And request the following operations:

-	Certificate download	Clicking on the 🕫 button a copy of the certificate (only public
		information) will be downloaded to be locally stored in a file (a .cer
		file containing the certificate). It is important to notice that the private
		key will not be provided.
_	Key recovery	Clicking on the 🟮 button a key recovery process will be initiated (see

#### 4.1.3. CERTIFICATE REQUEST LIST

This tab displays all certificate requests that currently belong to the user together with the status of these certificates:

- *Completed* The request has been processed and the certificates have been generated
- *Cancelled* The request has been cancelled
- *Expired* The request has expired
- **RO-Pending** The RO shall still process the request

3.1).

- User-Pending

The user can generate and download the certificates. The RO has already handled the request and has allowed a remote download

Certificate Request List     User Details     Certificate Package List     Certificate Request List     Ser History						
	User Information					
	Name ESPANOL ONE, Fulanito					
Ce	Certificate Request List					
Detail	Certificate Package Type	Request Status		IssuanceType	Operation Type	
٢	STANDARD	CANCELLED	13-02-2012 15:45:28	PRESENTIAL	REQUEST	
٢	ADVANCED	COMPLETED	10-02-2012 08:30:26	PRESENTIAL	KEYCOMPROMISE	
٢	ADVANCED	COMPLETED	09-02-2012 12:52:49	PRESENTIAL	KEYCOMPROMISE	
۲	STANDARD	COMPLETED	08-02-2012 15:11:14	PRESENTIAL	KEYCOMPROMISE	
٢	ADVANCED	COMPLETED	08-02-2012 14:58:19	PRESENTIAL	KEYCOMPROMISE	
۲	ADVANCED	COMPLETED	07-02-2012 17:03:48	PRESENTIAL	KEYCOMPROMISE	

Figure 29 - Certificate requests list

#### ECB - Restricted

) Certificate Package Request Detail		
Request detail Request h	history	
	User Information	
Name	APELLIDOS TRES, Usuariotres	
Requestor details		
Requestor name	apellido apellido, nombre	
Requestor mail @correo.interno		
	Certificate Package Request Detail	
Certificate Package Type	STANDARD	
Request Status RO PENDING		
Issuance Type	PRESENTIAL	
Operation Type	KEYCOMPROMISE	
Request Date	13/02/2012	

Figure 30 - Certificate Request details

#### 4.2. PENDING REQUEST LIST OPTION

From the Pending request list option you can access to all pending certificate requests for your Central Bank.

Detail	User Name	Organisation Name	
3	ESPANOL ONE, Fulanito	Banco de España(ES)	20-01-2012 13:33:33
())	ESPANOL DOS, Fulanito Dos	Banco de España(ES)	20-01-2012 13:23:02

Figure 31 - Pending requests list

Clicking on the <a>> button further details of the request will be displayed</a>

Certificate Package Request Detail				
Request detail Request history				
	User Information			
Name	APELLIDOS TRES, Usuariotres			
Requestor details				
Requestor name	apellido apellido, nombre			
Requestor mail	e-mail @correo.interno			
	Certificate Package Request Detail			
Certificate Package Type	STANDARD			
Request Status	RO PENDING			
Issuance Type	PRESENTIAL			
Operation Type	KEYCOMPROMISE			
Request Date	13/02/2012			

Figure 32 - Request detail

The status of the request can be:

- RO-Pending
- The RO shall process the request
- **User-Pending** The user can generate and download the certificates. The RO has already handled the request and has allowed a remote download

#### 5. MORE INFORMATION ABOUT ESCB-PKI

For further information see the ESCB-PKI Website, <u>https://pki.escb.eu</u> (you may want to bookmark this site for future references). The Frequently Asked Questions (FAQ) section will be your best source of support information.



Figure 33 - ESCB-PKI Website

In the ESCB-PKI Website you will find the following information:

-	About ESCB-PKI	Generic information with regards to the ESCB-PKI services.
-	Repository	ESCB-PKI public information: Certificate Practice Statement (CPS) document, Certificate Policy (CP) documents, Certificate Authority certificates, CRLs, etc.
_	Certificate management	ESCB-PKI Registration Authority tool.
_	FAQ	Frequently asked questions.
_	Support	Software needed to manage ESCB-PKI tokens and utilities to test ESCB-PKI certificates.

**Note**: The last version of this document can be found in the ESCB-PKI Website, along with other ESCB-PKI guides and manuals.