by

Francisco Delgado Azuara

Head of IT Area, National Institute of Social Security (Spain)

> **TOKYO** 20 | 21 | 22 January 2010



ISSA | MHLW | PIE International Seminar



CONTENS

The problem

The identification Process (registration, verification)

ID Registration

- Types of ID Registration in Socal Security
- ID keys in Spain



3

ID Verification and Interoperability

- Data needed to identity an insured person in electronic processes

6 - 15

16 - 19

5

6

Electronic ID

- Digital certificates
- e-ID in Spain: eDNI

Bottom line

MINISTRY OF LABOUR AND IMMIGRATION

5

20 -

6

THE PROBLEM

A worker ask for something

5

(Registration, benefits, contributions...)



ISSA | MHLW | PIE International Seminar

6

23

5

20 -

16 - 19

6 - 15

THE PROBLEM

Is this person whom they claim to be?

How should identity verification be conducted across different channels of communication?

So an identification process is needed

4

5



IDENTIFICATION PROCESS

Front office
Identity Registration
Identity Verification





Back office (interoperability)

Electronic identity verification

ID REGISTRATION

3

Types of ID Registration in Social Security ID keys in Spain

3

16 - 19

5

20

6

23

MINISTRY OF LABOUR AND IMMIGRATION

ISSA | MHLW | PIE International Seminar

3 ID REGISTRATION | Types of ID Registration in Social Security(1/2)

3

National Key

A key used to identify persons for administrative matters and used in all the Social Security areas

Social Security key

A key used to identify insured persons only for Social Security

7

3 ID REGISTRATION | Types of ID Registration in Social Security(2/2)

3

Area Key

A key used to identify insured persons only for one particular Social Security area

Institution key

A key used to identify insured persons only at institution level

No key There is no identification key used

8

3

ID REGISTRATION | Identification keys in Spain

National Identification Number (national key)

Social Security Number (national - social security)

Individual's identifier (internal – social security)

MINISTRY OF LABOUR AND IMMIGRATION

ISSA | MHLW | PIE International Seminar

6

ID REGISTRATION | Identification keys in Spain

- **National Identification Number**
 - Unique number

3

 Format 0000000 - A (where 0 is a digit and A is a checksum letter)



20

3

16

6

 Foreing nationals are issued with a similar identity card, with a number in the format X-000000-A called Foreigner's Identity Number 3

ID REGISTRATION | Identification keys in Spain

Social Security Number (1/2)

- It is required for people included in the System with regard to contributory type rights and responsabilities
- It is unique and covers all the system's schemes
- It covers the entire life of the person included in the System
- It is exclusive

DE TRABAJO E INMIGRACIÓN		TESORERÍA GENERAL DE LA SEGURIDAD SOCIAL	
57	NOMBRE	(e. 1) (i	
	PRIMER APELLIDO		
	SEGUNDO APELLIDO		
N" SEGURIDAD S	DCIAL D.N	UNLE.	1;

6

3

ID REGISTRATION | Identification keys in Spain

Social Security Number (2/2)

aa/bbbbbbbb/cc

- First part (a) indicates the registration province
- Central part (b) is the citizen number in every province
- Final part (c) is deduced from (a) and (b) for control purpose

6

3

ID REGISTRATION | Identification keys in Spain

Individual's identifier (1/3)

15 characters

- Type of document: DNI Passport some other special numbers
- Document identifier: Ten alphanumeric positions
- Duplicity: two figures sequential number to indicate possible duplicities
- Splitting to figures number to indicate that more than one person depends on the same titular in the special case of minors or mentally handicapped persons

6

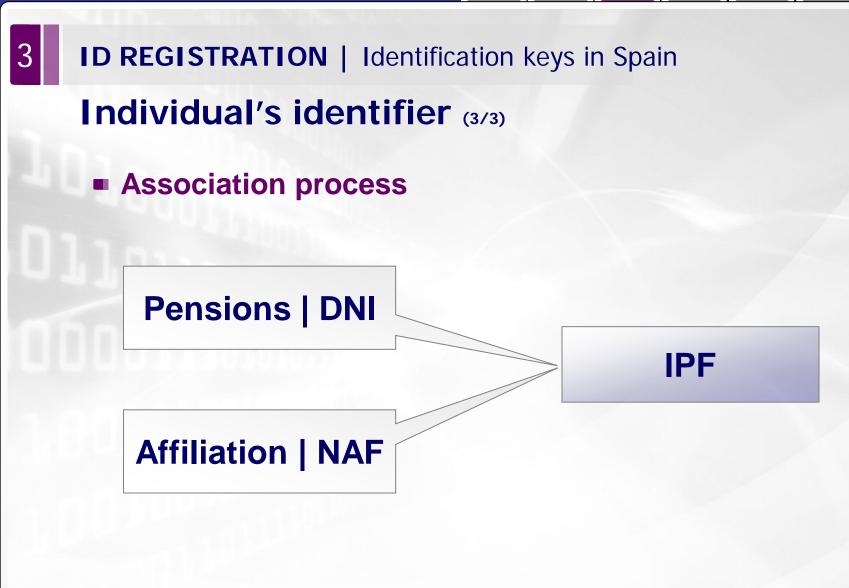
3 **ID REGISTRATION** | Identification keys in Spain Individual's identifier (2/3) Association process T.G.S.S. USUARIO: FRANCISCO DELGADO AZUARA ATTT61A1 24/11/09 SILTGA ATTM6103 13:17:13 G.I.S.S. * AFILIADO CON MAS DE UN NSS ASOCIADO **IPF:** 1 037693848E 01 DELGADO FRANCISCO AZUARA Número de Seguridad Social Consultado: 08 0380851530 Número de Seguridad Social Principal: _ 08 0380851530 Números de Seguridad Social Secundarios (VLD NFL) 28 0615275236 PF4 TRANS PF1 AYUDA PF2 MPRAL PF3 MANT INTRO CONT ©:00.1 08/43

14

6

23

20



MINISTRY OF LABOUR AND IMMIGRATION

6

23

5

20

ID VERIFICATION and INTEOPERABILITY (1/4)

Data needed to identify an insured person in electronic processes

 Where Personal Identification Number is present

Where Personal Identification Number is not present

ID VERIFICATION and INTEOPERABILITY (2/4)

Data needed to identify an insured person in electronic processes

Minimum data Set Where a Personal Identification Number IS present

- Personal Identification Number
- Surname | Family Name
- Forename (s)
- Data of Birth
- Sex

Name at Birth (Surname | Family Name and Forename (s))

17

ID VERIFICATION and INTEOPERABILITY (3/4)

Data needed to identify an insured person in electronic processes

Minimum data Set Where a Personal Identification Number IS NOT present

- Surname | Family Name
- Forename (s)
- Data of Birth
- Sex
- Place of Birth
- Surname | Family Name at Birth
- Father Surname | Family Name at Birth (at different)
- Mother Surname | Family Name at Birth (at different)
- Forename (s) of Father
- Forename (s) of Mother

MINISTRY OF LABOUR AND IMMIGRATION

ID VERIFICATION and INTEOPERABILITY (4/4)

Data needed to identify an insured person in electronic processes

Key Recommendation

It is critical for social security organizations to recognise the value of using ID keys in electronic messages

$$e = \sum_{n=0}^{\infty} \frac{1}{n!} \qquad \qquad e = \lim_{x \to \infty} \left(1 + \frac{1}{x}\right)^x$$

 $e = \frac{1}{0!} + \frac{1}{1!} + \frac{1}{2!} + \frac{1}{3!} + \dots + \frac{1}{n!} + \dots$

MINISTRY OF LABOUR AND IMMIGRATION

5 THE FUTURE - Electronic identity (1/3)

Digital certificates

- Electronic files used to identify people and resources
- Issued by a trusted third party (Certification Authority)

Two basic functions

- Certify that the person named is a reliable source
- Provide protection for the data exchanged

6

5

5 Electronic identity (1/3)

Electronic ID in Spain

Electronic National Identity Document

5

6 - 15

16





5

20 - 2

6

5 Electronic identity (1/3)

Electronic ID in EUROPE

Secure idenTity acrOss boRders linKed (STORK)

Pan – European recognition of electronic IDs

- Test a set of services using open standards
- Develop, test and validate common specifications for national eID systems to work together
- The solution will be scalable to all EU Member States

5

6 THE BOTTOM LINE

- Identification is a very important issue for Social Security
- Identification is condition sine qua non for a successfully data or messages exchanging
- It is critical to recognise the value of using Personal Identification Numbers/keys in electronic messages
- Spanish Social Security organizations experiences confirm this opinion
- Almost everything in the future pass through Internet and Social Security

THANKS FOR YOUR ATTENTION !!!

- 10

- 10



MINISTRY OF LABOUR AND IMMIGRATION

ISSA | MHLW | PIE International Seminar

5

6

1 - 10

by

Francisco Delgado Azuara

Head of IT Area, National Institute of Social Security (Spain)

> TOKYO 20 | 21 | 22 January 2010



ISSA | MHLW | PIE International Seminar



INSTITUTO NACIONAL DE LA