



dni
electrónico





ABOUT 13 YEARS AGO, **Peter Steiner** PUBLISHED A CARTOON IN “**The New Yorker**” THAT MADE US **smile** AND **think**...



"On the Internet, nobody knows you're a dog."

"En Internet, nadie sabe que eres un perro."

TWO MONTHS AGO, MASS MEDIA
ECHOED NEWS THAT WERE
SOMEWHAT **frightening...**



EL PAIS.es | Internacional

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INFORMACIÓN RELACIONADA

MULTIMEDIA

PARTICIPACIÓN

UTILIDADES

Una gigantesca estafa por Internet deja a la Hacienda británica al borde del colapso

Los criminales **usurparon la identidad de miles de trabajadores** para, alterando sus datos laborales, solicitar pequeños pagos a través del portal digital del erario público

ELPAIS.es - Madrid





ELPAIS.es - Internacional - 18-01-2006



Lack of security is one of the hurdles
(probably the **biggest** one) for the
development of Information Society...

The aim of the electronic DNI project is, essentially, **transposing** into the realm of the “**bits**” two well established procedures from the realm of the “**atoms**”:

-  **Accredit our identity** in the internet in an unequivocal way.
-  **Sign electronic documents** with the same validity a hand signature has on a paper document.

In order for the electronic DNI to offer this new functions in the digital world it needs some **certainties**:





 **AUTHENTICATION**

 **INTEGRITY**

 **CONFIDENTIALITY**

 **NON REPUDIATION**

At the present state of the art, in order to properly achieve such certainties, the following elements are needed:

-  Public Key Infrastructure**
-  Physical cards for holding the DNIE**
-  Adequate issuing procedures**
-  Adapt the existing IT infrastructure to the new context**



ARIADN@

El suplemento para comprender el mundo digital

EL MUNDO - Domingo 19 de febrero de 2006 - Número 268

INTERNET

En marzo

Arranca la cuenta atrás para el DNI electrónico

Entre enormes medidas de seguridad, el ministro del Interior, José Antonio Alonso, puso en marcha este jueves el sistema de certificación del DNI electrónico con el que podremos identificarnos en Internet. En marzo, se expiden los primeros en Burgos.



SEÑAS,	SUBD. N.º PRINCIPAL	DE POLICÍA
Edad <i>62</i>	de la provincia	de <i>La Mancha</i>
Estatura <i>5' 2 1/2"</i>		
Pelo <i>Cano</i>		
Ojos <i>Sardos</i>		
Cara <i>Larga</i>		
Color <i>Blanco</i>		
	Carta de seguridad por el presente año á favor de <i>D. Jaime Gujadas</i> de esta vecindad, que vive en <i>la Calle Mesones</i> , n.º _____ c.º _____ Dada en <i>Villa Mayor</i> á <i>22 de Enero</i> de <i>1830</i>	
Firma del Portador :	El <i>Jaime Gujadas</i> Alcalde. <i>Pedro Alcaraz</i>	
	Pagó dos rs.	

1st Identity Leaflet (XIX century: 1.824)



Last traditional DNI (end of XX century)



Tintas ópticamente variables

Microescritura

Datos de filiación

Fondos de seguridad



Electronic DNI (XXI century) - front



Equipo de expedición

Caracteres OCR-B, de lectura automática

Electronic DNI (XXI century) - back

Government set **two lines of work** for a successful deployment of the electronic DNI:

2. **Guarantee coordinated actions.**

Deploying the electronic DNI requires **multiple diverse actions** in **different Governmental Departments**

• **Assure project funding.**

The electronic DNI project was **properly funded during 2005.**

Guarantee coordinated actions:

- On December 23rd, 2004 the Government created the **Coordinating Committee** for the deployment of the electronic DNI and the **Supporting Technical Commission** *Comisión Técnica de apoyo* for the Committee



Action lines set by the Coordinating Committee

1. Start the electronic DNI **Technical project**
2. Set strategies for the **Validation Authorities**
3. Create a Citizens **Help Desk**
4. Design promotion, communication and dissemination actions
5. Implement and deploy **the first DNIe based services**

Electronic DNI Technical Project

The Ministry of the Interior has counted on two referents:

- **The Spanish Data Protection Agency,**
in order to guarantee that the electronic DNI holds the data it says and for verifying that **the procedures used abide to the law.**
- **The National Cryptology Centre,**
in order to assure that technologies and procedures confer **maximum possible security** to DNIE.

Electronic DNI Technical Project

Supporting physical card

☰ Designed and produced by the Spanish National Mint, in **close collaboration** with the **Directorate General for the Police**

☰ 1. Physical media:

- ◆ Made of polycarbonate (estimated life @ 10 years)
- ◆ Very many security measures:
 - ◆ Optically variable inks
 - ◆ Reliefs and patterns
 - ◆ Security backgrounds
 - ◆ Ultraviolet/infrared visible inks
 - ◆ Microwriting
- ◆ The design has been verified by the Scientific Police Unit
- ◆ Destructive laser data engraving
- ◆ Annual production: **6.000.000** cards (stationary regime)



Electronic DNI Technical Project

Supporting physical card

2. Microchip:

Designed according to **dynamic security** criteria

Certified by the **National Criptolgy Centre**

PIN controlled access to certificates

It just contains legally defined data:

- Personal holder's data
- Digital photograph
- Digital image of the hand signature
- Representation of fingerprint
- Authentication certificate
- Certificate for signing
- CA certificate
- Private keys

A radical change: Issuing in just one visit

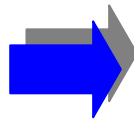
FNMT-RCM



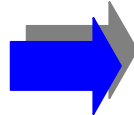
Producción de las tarjetas pre-impresas



Entrega de documentación y toma de datos



Digitalización



Oficina de Expedición del DNI



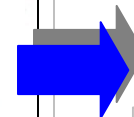
Impresión de los datos de filiación en la tarjeta



Grabación de datos en el chip.



Entrega de PIN aleatorio en un "sobre ciego"



Los certificados se activan a petición del ciudadano

Personalización





Electronic DNI Technical Project

Technical Office for the DNIE

- It is in charge of **easing the development of applications** that make use of the electronic DNI, publishing **technical specifications** and answering questions.
- Activities are aimed at IT professionals** both from private and public sector.
- It is staffed with specialists from the Police Directorate General and located in the “El Escorial” data center.
- Its work forces involve professionals from other governmental departments.

Validation Authorities and Help Desk

The **Validation Authority** is a part of the PKI that informs about certificates validity :

- 📄 **Separation** between CA and **Validation Authorities**
- 📄 The Certification Authority knows who is the owner of each certificate but has no information about transactions.
- 📄 The Validation Authority knows about certificate validity, but knows nothing about who the owner is.
- 📄 There are **two** operational Validation Authorities at DNIE launch (March 16th, 2.006):
 - ◆ **Spanish National Mint**
 - ◆ **Public Administration Ministry**

Help Desk

The **Citizens Help Desk** is a cornerstone for the deployment of electronic DNI:

- It is operated by the Spanish National Mint
- Permanent:** 24 hours a day, 7 days a week
- Universal:** any kind of users
- Free:** costless for the citizens
- Integral:** handles any problem related to DNIE
- Unique:** it supports all Validation Authorities

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ESTADÍSTICAS







El 71% de los españoles cree que Internet no es necesario |

CIBERP@ÍS

EL PAÍS - 21-07-2005



Communication, dissemination and promotion

-  Publish all DNIE related information at its portal www.dnielectronico.es
-  Detailed presentations to directly related groups (banks, bussiness associations, IT enterprises, SMEs)
-  Grants and funds for entreprises to adopt DNIE based services, through programs of the Ministry for Industry, Commerce and Tourism.
-  Promotion and communication in Issuing Offices.
-  Cryptographic card readers introduction program.
-  Communication plan for DNIE.



First DNIe based services

- 📇 For the DNIe to be a real useful device for citizens, it is **essential to offer, since its first deployment, electronic Administration services.**

- 📇 **At present**, 120 services that use DNIe are in operation, mainly in:
 - Tax Administration
 - Social Security

- 📇 There are estimations for 300 services to be operational in State Administration by the end of 2.006

- 📇 There will be 3.000 services in the first quarter of 2.008 at different administrations (state, regional and local)

Guarantee funds

Estimated costs 2.005 – 2.008

ACTUACIONES	Coste en Millones €			%
	Inversión	Gasto	Total	
1. Proyecto Técnico del DNI electrónico	59,44	160,55	220,00	70,10 %
2. Servicios de validación y atención	9,45	14,90	24,35	7,76 %
3. Medidas comunicación, divulgación y promoción	4,70	45,30	50,00	15,93 %
4. Servicios basados en el DNI electrónico	19,50	0,00	19,50	6,21 %
Total Proyecto DNI electrónico:	93,09	220,75	313,85	100,00 %
Porcentajes:	29,66 %	70,34 %	100,00 %	

- Main cost of DNIE is related to the **Technical Project** (70,10 %) mainly to **production cryptographic cards**
- In fact, **cryptographic cards make about half the cost** of deploying electronic DNI (46,54 %), but part of this cost is recovered via an issuance tax.



- ❏ Electronic DNI deployment **will put Spain in the fore front** of Electronic Administration Services.
- ❏ It is an **opportunity for our technological enterprises** to develop innovative products and services with great added value.
- ❏ Electronic DNI will give the citizens **more security** in a **privacy compatible way**
- ❏ Electronic DNI is, finally, **a device for innovation and modernization**



www.dnielectronico.es

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