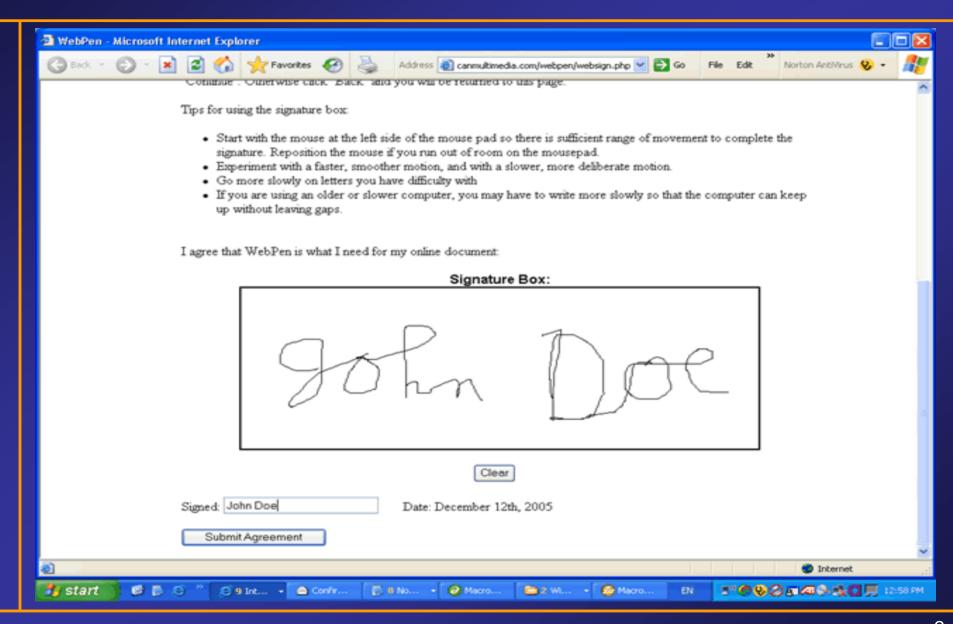
LuxTrust SA

a national centre of excellence in trust business





What is a digital signature?







THIS is a digital signature

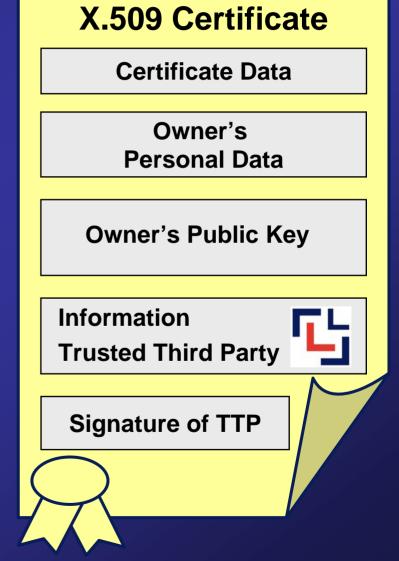
```
fc b7 d2 cb 1f
                               5f
                                   39
                                       29
                                               18
                                           28
                                                   9e
                                       13
                                               9b
                       a2
                               4a
                                           86
                           70
                       bb
                           e5
                                   9d
                                           36
                                               db
                               b0
                                       3d
                   0a
               1f
                   dd
                       89
                               9e
                                   0f
                                       2e
                                           6c
                                               95
               84
                                   2a
                                                           2b
                   02
                       4d
                           80
                               6a
                                       2d
                                           78
                                               0b
                                                   ae
                                       af
   83
           83
                       50
                           82
                               4c
                                   24
                                                   a5
                   cd
                                           bd
                       49
                           8e
                               37
                                   96
                                       fe
                                               88
                                                           d9
                                           9a
                                       a6
                   19
                       96
                           47
                               a7
                                   3a
                                           8c
                                               8b
               e6
                               7e
                       d1
                                   49
                                       a2
                                           4b
                                                           59
           53
               da
                           ac
                                               e6
                                           35
               bb
                   2c
                           a9
                                   42
                                       7c
                                                   d8
           0e
                       bd
                               aa
                           af
           4e
               63
                   43
                       39
                               08
                                   b0
                                       61
                                           34
                       3b
                               c2
                                   56
                                       58
                                                           1b
                   29
                           9d
                                           98
                                       f5
                                           f9
   f6
               3e
                           54
                               45
                                               d5
                                                           fe
       9d
                   aa
                       a7
                                   32
6b
   58
               b3
                   1e
                       d7
                           52
                                               40
                                                   60
                                                           c9
                               ea
                       a8
                           66
                                   82
                                       dd
                                           98
                               0e
                               76
                       6b
                                       84
                                           46
                                               8a
```



Digital Certificate

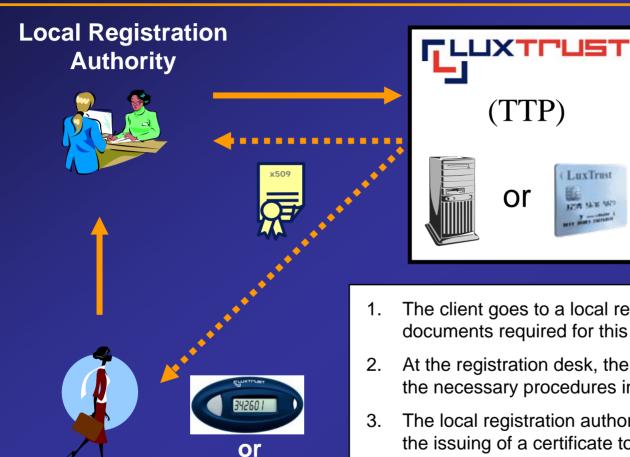
 A Digital Certificate is the digital identity of the holder of a private key

- Personal Data:
 - Name
 - eMail
 - **—** ...
- Trusted Third Party: LuxTrust S.A.









- The client goes to a local registration authority with the documents required for this procedure (ID card, ...).
- At the registration desk, the registration agent executes the necessary procedures in order to issue a certificate.
- The local registration authority sends the data required for the issuing of a certificate to the TTP.
- The TTP creates the certificate on a Smartcard or signingserver.
- 5. The Smartcard is sent to the ordering client or to the local registration authority (depending on the client's choice).





LuxTrust Certificates will be issued to either:

- Physical persons as private individuals
- Physical persons as employees or representatives of a company / institution





- Guarantees the identity of the holder of the certificate by enforcing strong registration procedures.
- Manages the physical infrastructure called Public Key Infrastructure (PKI).

Provides online validation/revocation services.

Balance the role of e-commerce partners



Benefits for application providers

Manage Legal Risks

- Ensure Data Privacy (CNPD)
- Create legal proof, compliant to (inter)national regulations
- Secure official documents : ePass, eHealth , driving licence...
- Improve legal value of electronic archives



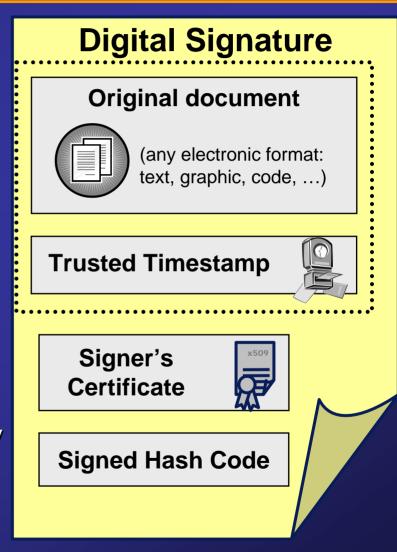
Benefits for end-users

- User-friendly method of authentication and signing
 - Mobility: Match with basic requirements for roaming
 - High level of security and confidentiality
- Only one LuxTrust ID for multiple applications
- Trust in a nationwide & cross-border non-proprietary solution
- Secure Access to and control of personal data



Electronic Signature

- An Electronic signature is a mathematical operation on a document using the private key of the signer.
- The signature allows the recipient to:
 - Verify the integrity of the document
 - Authenticate/identify the signer
- The trusted timestamp provided by LuxTrust supports non-repudiation







Certification Services

- Signature Server certificate with <u>OTP-Token</u> or <u>SMS-OTP</u> that allows advanced PKI-based authentication, signature and encryption.
- Smartcards holding two certificates (one for authentication and encryption and a second one dedicated to advanced digital signatures).
 The solution is designed to evolve towards a "qualified" solution when required.
- SSL-server certificates
- Object certificates





- ICAO certificates for Luxembourg's <u>e-Passports</u>
- Customised solutions (Smartcards for internal use)



LuxTrust Planning

	2006							2007											
	Trim 3			Trim 4			Trim 1			Trim 2			Trim 3			Trim 4			
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
Biometrical Passports	Te	est	Pr	od	uct	ion													
Website			-	Tes	t	Pro	du	ctic	n										
certificates Smartcards						•						•							
Ciona in a Communi				Tes	t	•		Pr	od	uct	ion	•			• • • • • • • • • • • • • • • • • • •				
Signing Server Certificates						•		T	est				Pr	od	uct	ion			



A new approach



A common Strategy & Business Development



Centre of excellence in Trust Business with international reach

Sub-contractor: u-trust











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