Absolute Identity

TRÜB BALTIC AS

SK Aastakonverents 2014

Uue põlvkonna eID kiipkaart

New Generation of eID Smartcard

“Developments on the EstEID Smartcard Application”

06.11.2014

EstEID Chip Application – Today

- Version 3.5 on ID cards since Monday 20. October
- Change from v3.4 to v3.5 together with new chip platform
- > 1. December – DigiID / e-Residency DigiID with v3.5 and new chip
- ~January 2015 – RP with v3.5 and new chip => Change completed!

- Version 3.5 – redesigned, streamlined, increased security
- New chip: SLE78 with TrustedLogic Java futureproof platform
  - unrestricted support of next generation cryptography
  - support of OAEP => possibility to use PKCS#1 v2.2
  - higher performance

EstEID Chip Application – Development since 2002

- **2001 – copy of FinEID => EstEID v1, 1k certificates, OS: Micardo Public**
- **2008 – EstEID v1.1 (2), 1k certificates, no T=1, OS: Multos**

  issued as DigiID only starting from May 2010
- **2010 – EstEID v3.0, 2k certificates, OS: Java**

  issued January – December 2011
- **2011 – EstEID v3.4, 2k certificates, OS: Java**

  a.o. immunisation against PIN/PUK blocking by PIV driver

  issued since January 2012 and replaces v3.0
- **NOW – EstEID v3.5, 2k certificates, OS: Java**

EstEID with NFC – Why at all

- **Reputation: EstEID to be recognised as innovative**

http://www.ega.ee/files/ID-1%20formaadis%20dokumentide%20funktsionaalsuse%20uuring_v2.pdf

- **Explore new application fields**
- **Consider changed user habits:**

- widespread and growing use of tablet computers

- tablets rather unsuitable for MobileID: Missing GSM, Impersonal

- **Having the opportunity: DigiID as technical playground**

EstEID with NFC – What and Where

WHAT

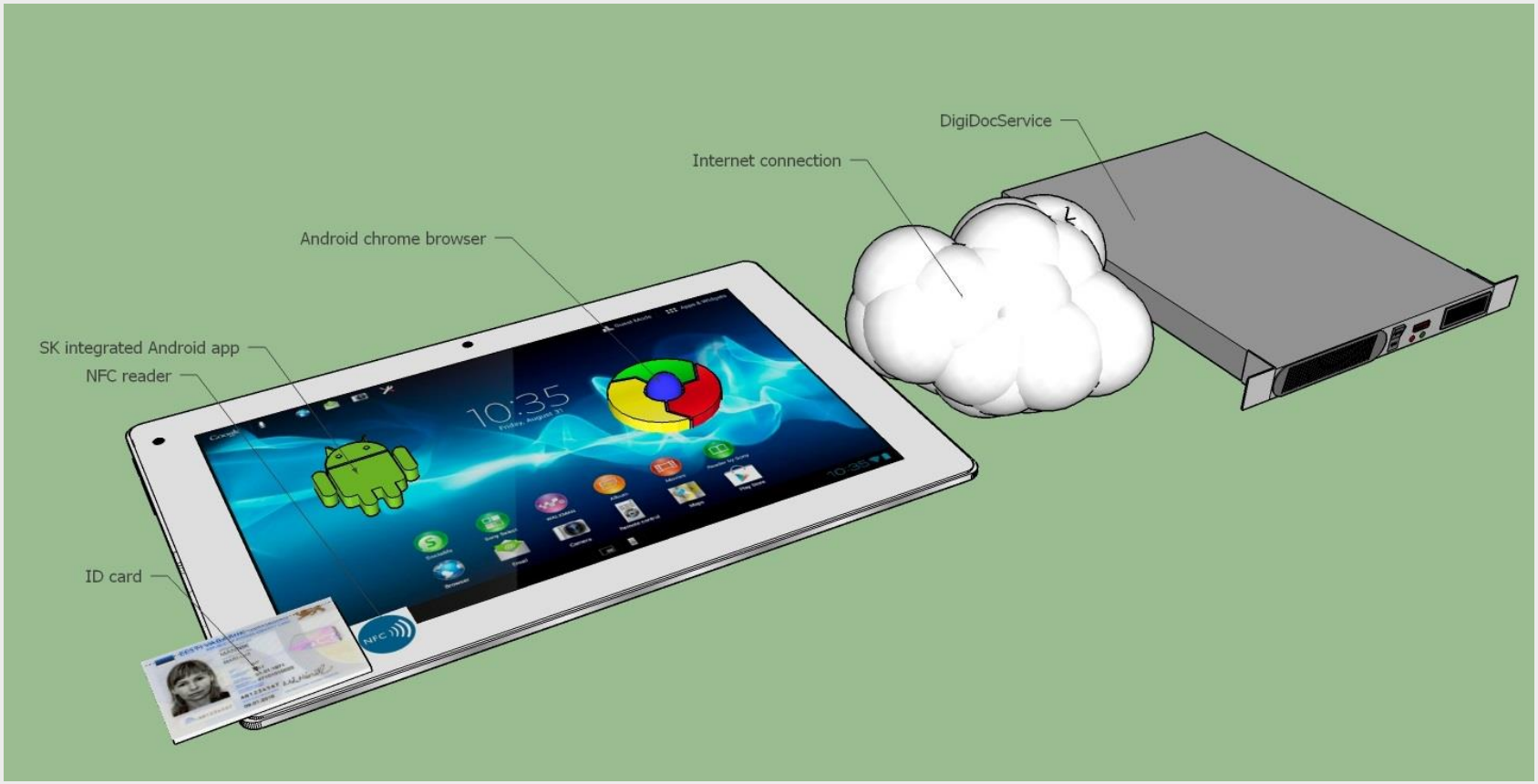
- **NFC to substitute card reader – Only Computer & Card**
- **Use of EstEID webservices as of today – choose "ID-card"**

for login/signing => Avoiding changes on Host side application!

WHERE

- **EstEID NFC pilot runs on Android devices**
- **EstEID NFC pilot runs with Google Chrome browser**
- **EstEID NFC pilot runs with on new DigiID's**
- **Phase 1: Selected Beta test pilot group – special permission of PPA**
- **Phase 2: Enlarged pilot group – special permission of PPA**

EstEID with NFC – How it works #1



EstEID with NFC – How it works #2

- **Webservice server requests client validation**
- **Browser (Chrome) provides API to communicate with built-in Android NFC service that integrates to CA (SK)**
- **User needs to select certificate and validate PIN**
- **User certificate gets validated against SK's OCSP (DigiDocService)**
- **Android service sends back signed client certificate to Browser**
- **Server validates client certificate against SK's OCSP**
- **Secure SSL connection between client and server is set up**

... And you are IN

Similar for digital signing

EstEID with NFC – Security Considerations

- No decryption feature in NFC mode
- NFC feature can be switched off/on by the user
- NFC needs close proximity – proximity by user consent
- Idle timeout planned

- ... And further features as for contact EstEID

EstEID Token Overview

Token Model	Electronic function				Physical function	
	Identification I	Authentification A	Signing S	Encryption E	Identification PI	Travel Doc TD
eID	X	X	X	X	X	X
eRP	X	X	X	X	X	
Digi-ID	X	X	X	X		
NFC Digi-ID	X	X	X	(X)		
Mobile-ID	X	X	X			

EstEID Chip Application – Development Outlook #1

- **Trusted elements in using EstEID**
- **Untrusted environment**

=> Trusted Environment Verification

=> User Presence Verification

EstEID Chip Application – Development Outlook #2

- **Near Future:**

  Human Being Verification

- **Distant Future 2**

  Owner Verification

- **Undetermined Future**

  Using free memory space for offline use

  i.e. facial picture for loyalty purposes

Questions & Answers

Or

Comments & Suggestions

Now or later to

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Thank you!