NIST-Workshop 10 & 11 April 2013

EUROPEAN APPROACH TO OVERSIGHT OF "TRUST SERVICE PROVIDERS"

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1. ETSI at a glance
2. Current voluntary Audit Scheme for TSP issuing SSL-Certificates based on ETSI Standards and Specs
   3.1. Legal Framework: EU Draft regulation on EIDAS
   3.2. Shaped Standards Framework: EU Mandate 460
   3.3. Proactive Trust Framework
3. Next Steps
4. Summary
1. ETSI activities

- Standards in support of EU regulation
- Interoperability Testing
- Standards for global ICT markets

GSM, DECT, TETRA, 3GPP: UMTS, LTE, ESI:TSL, XAdES, PAdES, REM
1. Membership

- Over *700 companies*, big and small, from *62 countries* on *5 continents*

- Manufacturers, network operators, service and content providers, national administrations, ministries, universities, research bodies, consultancies, user organizations

A powerful and dynamic mix of *skills, resources* and *ambitions*
2. ETSI Recommended Practices for CAs issuing Web Certificates

Year 2008 ETSI Published TS 102 042 “Policy Requirements for Certification Authorities issuing Public Key Certificates” that Generalizes requirements specified in TS 101 456 for Qualified Certificates.

Year 2010 Versions TS 102 042 references CAB guidelines for specific requirements for Extended Validation Web Certificates

Year 2012 CAB Forum “Baseline” guidelines to be adopted by all Certification Authorities issuing web certificates - Only compliant CAs to be included in browsers

End of Year 2012: ETSI issued actual policy and audit guides for Baseline and Extended Validation.
2. Assessment & Certification – Actual (Best) Practise for SSL

1: TSP systems and procedures
2: Published Certification Practice Statement
3: Standard for Certification Policy
4: TSP Conformity Framework and Audit Requirements
5: Independent Auditing / Assessment Body
6: National Supervision and/or Accreditation Scheme operator
7: International Assessment / Audit Scheme
8: Recognition by Applications (OS + Browser + TSL)
2. Assessment & Certification – actual TSP Perspective (german example)

8: Recognition by Applications (e.g. Mozilla, Opera, MS, Google, Adobe Rootstore)
7: International Scheme (e.g. EA: European Cooperation for Accreditation or IAF: International Accreditation Forum)
6: National Scheme (e.g. DAkkS: Deutsche Akkreditierungsstelle)
5: Independent Auditing / Assessment Body (e.g. TÜVIT)
4: TSP Conformity Framework (ISO 17065+ ETSI TR 102 123 + CA/B-Forum)
3: Standard CP (ETSI TS 102 042 + CA/B-Forum Req)
2: Published CPS (e.g. D-TRUST CPS and Conformance Claim)
1: TSP systems and procedures (CEN14167 or/and Common Criteria or/and FIPS 140-2)
New approach to I-A-S in Europe
3. Crobies Study in 2010: Key success factors for eSignatures

Realizations, consistency and mapping of efficient Legal, Technical, Trust and Promotional frameworks are key success factors to convince market & business stakeholders of the possible ROI of eSignatures securing their eProcesses.

Sound CSPs & Trust Services
Provisioning market for interoperable and cross-border use eSignatures

Promotion

Consistency & formal (efficient) mapping

Sound Legal Framework
• Different level of ES
• Range of ES prod/serv.
• Different types of CSPs
• International dimension

Sound Standardization Framework
• Covering whole range of ES prod / serv., ES types and types of CSPs
  • Business practice driven
  • Appropriate guidance
  • International dimension

Sound Trust Framework
• Supervision of CSPs
• Voluntary accreditation
• Trust Status Lists
• Application labelling
Realizations, consistency and mapping of efficient Legal, Technical, Trust and Promotional frameworks are key success factors to convince market & business stakeholders of the possible ROI of eSignatures securing their eProcesses.

Also applicable for SSL-Certs!

### Sound Legal Framework
- Different level of ES
- Range of ES prod/serv.
- Different types of CSPs
- International dimension

### Sound Standardization Framework
- Covering whole range of ES prod / serv., ES types and types of CSPs
  - Business practice driven
  - Appropriate guidance
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### Sound Trust Framework
- Supervision of CSPs
- Voluntary accreditation
- Trust Status Lists
- Application labelling
3.1 New approach for legal framework: Draft EU EIDAS- Regulation

June 2012 – EU Commission publish first draft regulation “on electronic identification and trust services for electronic transactions in the internal market”.

- Added Mutual recognition of electronic identification [E-ID]
- Extended Supervision of “Certification Service Providers” to “Trust Service Providers”, includes “proactive supervision”
- Qualified Electronic trust services:
  - Electronic signatures interoperability and usability,
  - Electronic seals interoperability and usability,
  - Time stamping,
  - Electronic delivery service,
  - Electronic documents admissibility,
  - Website authentication.
Structure

Building of Trust
- e-identification, authentication, signatures & related trust services

Underlying principles:
- Internal market
- Subsidiarity
- Technological neutrality

Trust Services
- eSignatures
- eSeals
- Time stamping
- Certified eDelivery
- eDocuments admissibility
- Website authentication

Common principles
- Supervision
- Trust (trusted lists, devices certification)
- Convenience/transparency (legal certainty)
- Security (qualified levels)
- Data protection
- Liability
- International aspects
- Accessibility

Specific Requirements
- Legal effect
- Mutual recognition and acceptance
- Reference to standards

Identification
- Natural & legal persons
- Notification
- Authentication

Principles

Requirements
- Mutual recognition and acceptance
- Liability
3.2 Standards Framework I: M460 European Commission mandate

EC founded eSignatures standardization activities

- 4 years: 2011-2015

- 1st phase (executed)
  - definition of a rationalized standardization framework, in collaboration with CEN
  - several specifications upgrades primarily aimed at providing quick technical fixes to existing electronic signatures standards, and definition of test specifications

- 2nd phase (starting now)
  - implement the rationalized standardization framework
  - support the new EU Regulation on electronic identification and trust services for electronic transactions in the internal market (exp. approval in 2014)
3.2 Standards Framework II
Mandate/460

- Issuing certificates
- Time-stamping
- Signing Servers
- Validation Services
- Rules & procedures
- Formats
- Signature Creation / Validation Protection Profiles

- Made by CEN:
  - SSCDs (e.g. SC)
  - HSMs & other SCDs

- TSPs supporting eSignature
- Trust Application Service Providers

- Signature Creation & Validation
- Trust Service Status Lists Providers

- Cryptographic Suites

- Key generation
- Hash functions
- Signature algorithms
- Key lengths
- ...
3.3 Trust Framework: Model for TSP Conformity Assessment
3.3 Trust Framework:
TSP Conformity Assessment Model

- TSP Conformity Assessment Model
- Trust Service Status List
- TSP Assessment Scheme
- European co-operation for Accreditation (EA)
- National Accreditation Body
- Auditor's Competence Accredited by National body in line with pan-European Auditor Accreditation Scheme
- Based on Audit report TSP status
- Set in Trust Service Status List
- Audit TSP Against standard criteria (e.g. EN 319 411-2)
4. Next Steps

In Spring 2013 EU Commission publish new 2nd draft regulation “on electronic identification and trust services for electronic transactions in the internal market”.

Under EU Mandate 460 (2013 to 2015) ETSI commissioned to produce

- European Norm for TSP Conformity Assessment
- European Norms for Best Practices (Policy Requirements)
- Qualified Certificates for Personal Signing
- Qualified Certificates for organisational “seals”
- Qualified Time-stamping Services
- Qualified Website Certificates (should be EN 319 411-4)

Option to operate as “Sector Specific” implementation of ISO 27001
5. Summary

Existing national conformity assessment schemes (ISO/IEC 17021/17065) are a suitable and powerful framework for voluntary security assessments of TSPs (Reactive Supervision).

ETSI criteria provide CP's and valuable requirements for the different types of conformity assessment activities.

Additional mandatory network security requirements and certified products will enhance the overall security level of TSPs significantly.

The new draft EU-Regulation will deliver a complete legal and trust framework for Proactive Supervision on “qualified level”.

ETSI standards will be a fundamental part in future EU legislation (delegating acts).

but: “relying parties have to consume Trust”
Thank you!

ETSI Download:
http://pda.etsi.org/pda/queryform.asp
Enter keyword / title / document number

Draft EU Regulation:

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