Towards a Cross-domain Infrastructure supporting Cross-border ePrescription/Patient Summary Services

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e-CODEX e-Delivery Plattform

- **Consolidates** the results of Large scale Pilot projects
- **Improves** solutions and develops generic modules
- **Extends** their usage to more domains
to facilitate citizen to provide access to his Patient Summary and electronic Prescription to health professionals across Europe.

to enable health professionals to seamlessly identify electronically the patient to access this health document abroad.

to enable health professionals to access across Europe health insurance affiliation data for third payment procedure.

to mutualise some technological assets with other eGov domains to enable sustainability of eHealth cross-border services through maintenance cost reduction.
Brief on previous LSP

- Business setup
- Procurement
- E-Justice
- eHealth

eID
Member State A

New Business registration application

Business Registration confirmation

Member State B

Business Registration
Brief on previous LSP

**Country of care**
- e-ID
- Doctor
- Healthcare service
- Patient Summary in doctor’s language
- National Contact Point

**Country of affiliation**
- Send request
- Patient summary in English (Pivot document)
- National Contact Point
- Patient Summary repository

- e-SENS solution
- Retrive a summary in patient’s language
Lessons learned from the silos

Various infrastructure model but common needs

- Users need to be authenticated
- Subjects need to be identified
- Secured information delivery needs to guarantee confidentiality, integrity and availability

Note: Difference for eHealth, documents are exchange on demand (asynchronously)
eSignatures, eDelivery, eDocuments and eID

Focus is on re-usable, generic and cross sector high level building blocks
e-SENS tasks

- Stock taking
- Specifications of consolidated building blocks
- Testing and pilot enablement
- Piloting
- Handover
2 Use cases based on epSOS LSP
- Cross-border exchange of Patient Summary
- Cross-border exchange of electronic prescription

Building Block integrated in the OpenNCP reference implementation framework for a National Contact Point for eHealth
- Evidence Emitter
- eID and eSignature
- Capability Lookup

Tested by Austria, Greece, Italy, Luxembourg and Portugal in Connectathon 2015 (Luxembourg) and later in Expandathon 2015 (Lisbon 2015)
EvidenceEmmitter

- **epSOS specifications tackle non repudiation aspects**, yet not inlined with the ISO 13888 standard neither with the ETSI REM standard (selected architecture for the eDelivery CEF building block).

- **Provide a cross-sector technology** that selects and feeds the correct evidence emitter for the specific domain.

- **Define mandatory data** to feed the ATNA audit trail emitter in parallel with the ETSI REM.
Local Attribute Retrieval and Mapping (LARM)

- Remove need to enter manually identity traits
- remove the need for different middleware, drivers, and software installation for smart card reading
- transform and map smart cards data onto a singular virtual ISO 24727-3 compliant middleware for standard interfaces (e.g. OASIS Digital Signature Services (DSS) or RESTful resources)
- Based on Java Web Start (JWS) technology
- Installed on-demand, runs in the doctor’s web browser, and discarded after concluding the workflow
- Can be tested on: jnlp.fokus.fraunhofer.de
Local Authentication Module (LAM)

- Enhance LARM with authentication by signing the extracted information of the card (DSS-compliant)
- Enable signature of the TRC (Treatment Relationship Confirmation) assertion

Next step

- Federated attribute authentication scheme with EUAuthentication Schemes, e.g. STORK 2.0 and eIDAS
- Virtual authentication schemes and mobile eID
Distributed mechanism to store and locate public configuration information using the OASIS standards SMP and BDXL.

NCPeH provide its public configuration in a Service Metadata Publishing (SMP) record, push it to an SMP server.

To retrieve a remote configuration, the NCPeH performs DNS-based queries to the Location Lookup Service to obtain a reference to the SMP server.

Useful to discover service capabilities provided by National Contact Points for eHealth (NCPeHs).
Provide 3 BBs to the OpenNCP reference implementation framework for a National Contact Point for eHealth used in the CEF call eHealth DSI.

MS plan to enter in OPERATION in February 2018 (wave 1)
   - Real exchange of PS and eP in production at large scale, not a pilot.
- e-SENS enhances the epSOS ICT infrastructure with the cross sectorial Building blocks: Evidence Emitter, eID, eSignature and Capability Lookup

- Facilitate exchange of Patient Summary and ePrescription
  - Increase health professionals service experience with patient identification
  - Decrease complexity of smart card technology
  - Effective consent management (signed TRC)

- Demonstrate possible uses and benefits of cross sectorial technological assets
Thank you