TERVISE JA HEAOLU
INFOSÜSTEEMIDE KESKUS

HWISC (TEHIK) and X-road

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07.09.2017

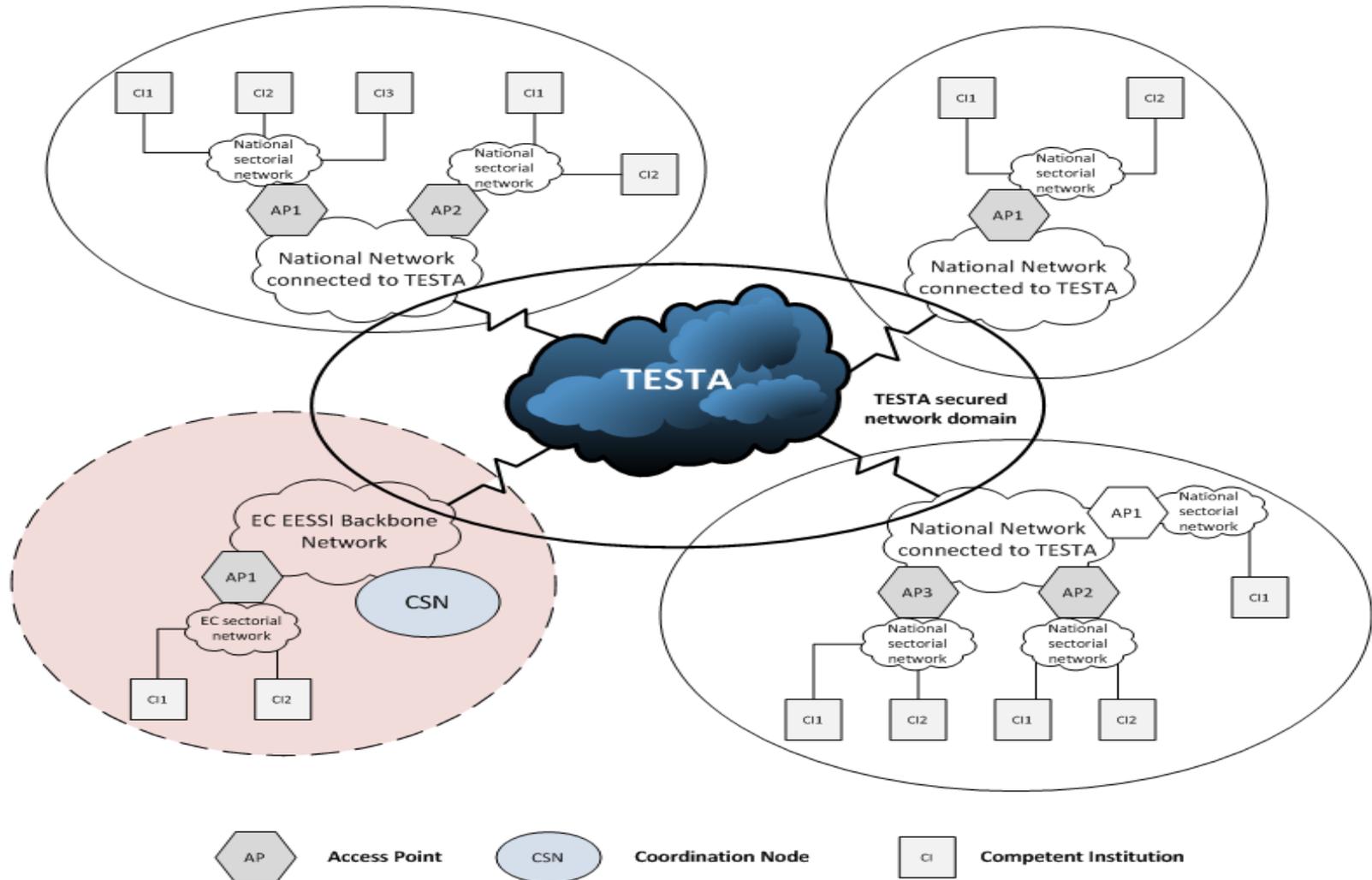# Health and Welfare Information Systems Center (HWISC, TEHIK)

HWISC is a **ICT competence center** founded on 1st of January 2017 which consolidates the roles and responsibilities of former ICT department of Ministry of Social Affairs and Estonian eHealth Foundation.
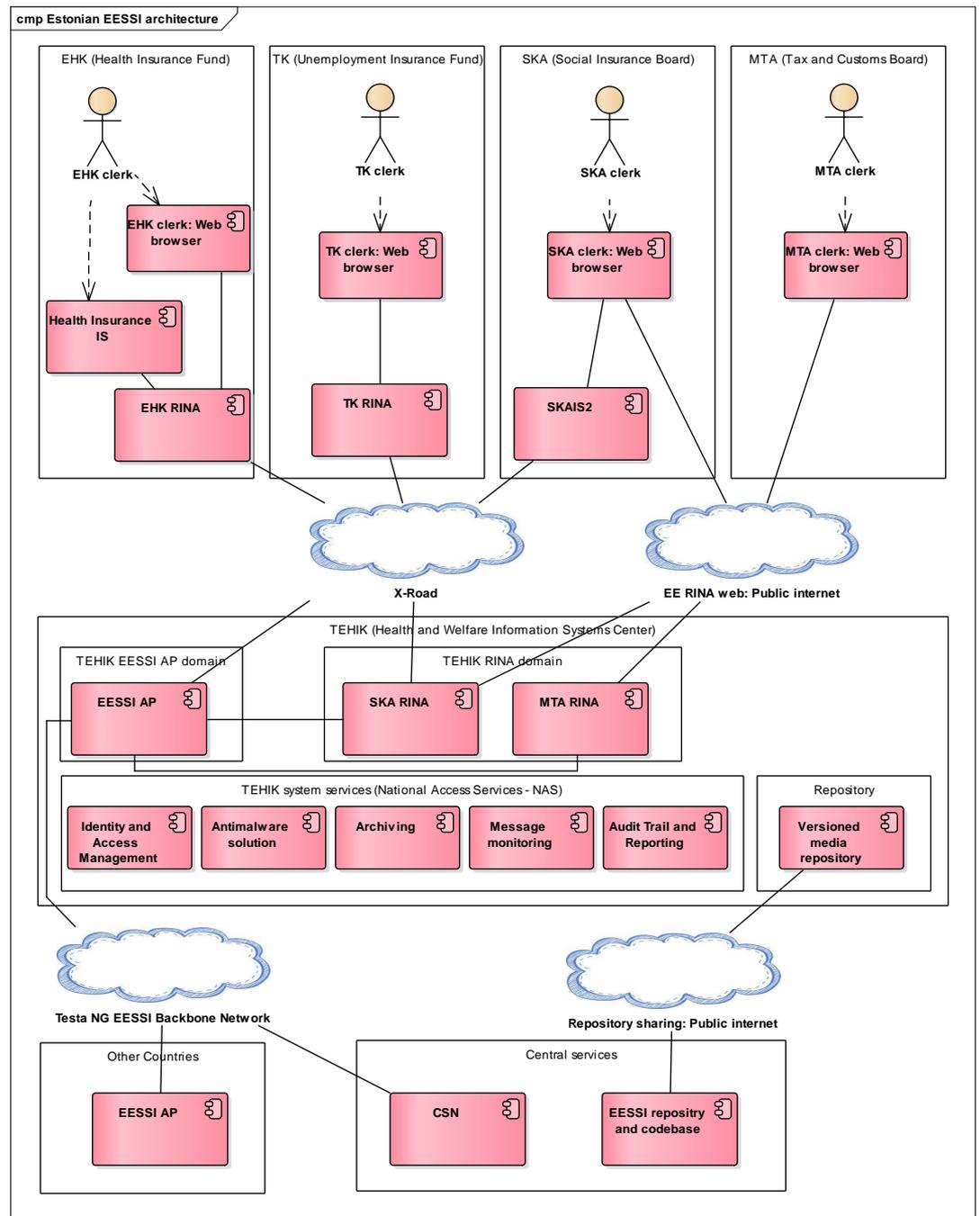
X-road protocol wishes?

Two reasons:

- Modern IT development and standards move away from SOAP
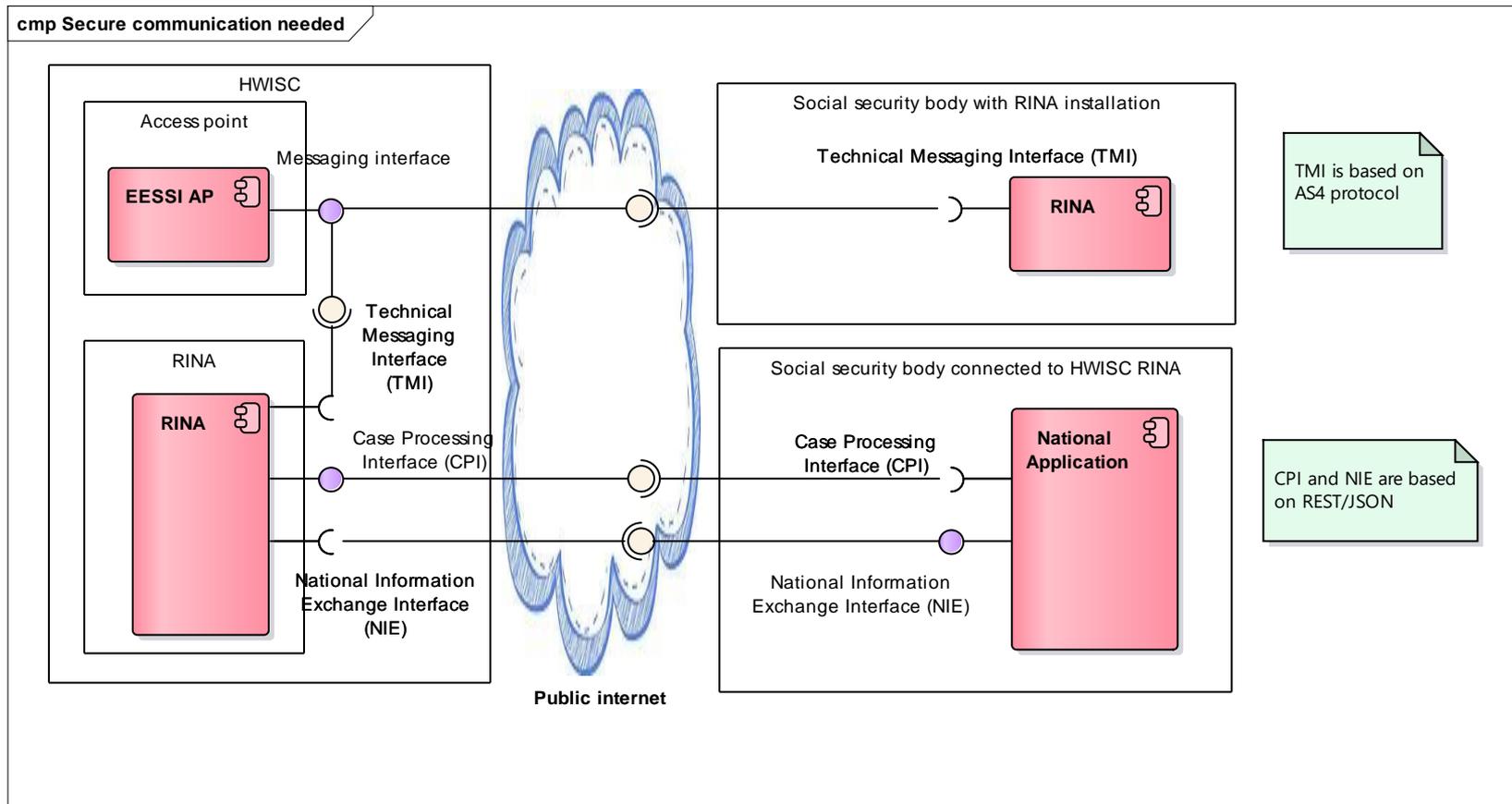- International projects use some other standard

Electronic Exchange of Social Security Information – EESSI
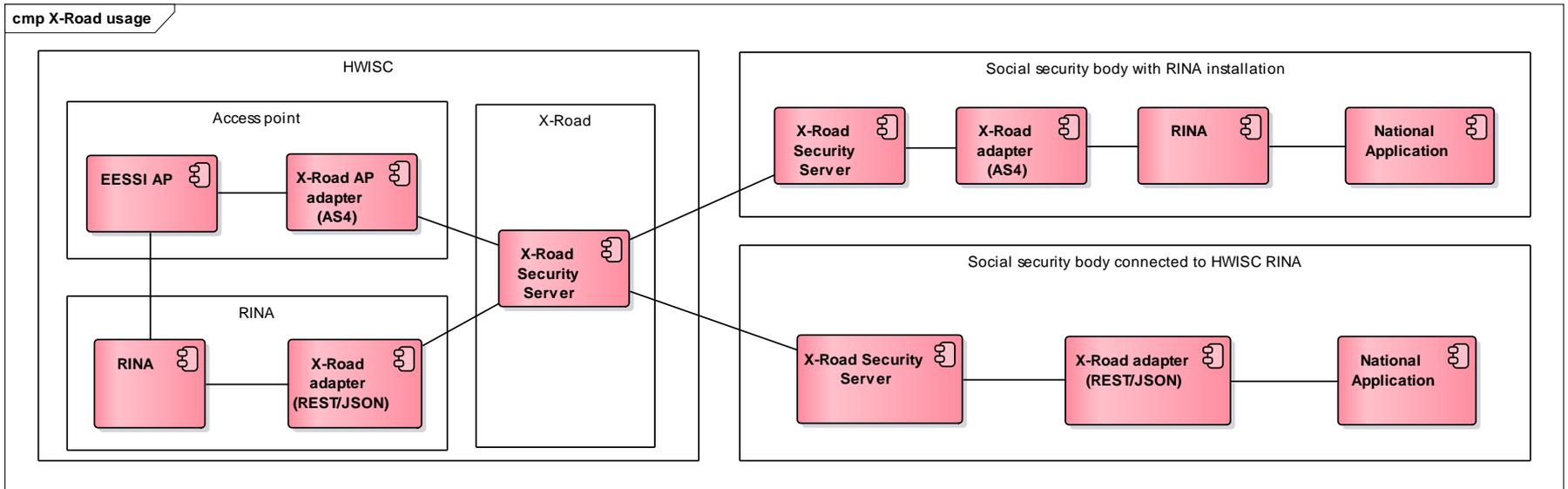
EESSI National architecture

cmp Estonian EESSI architecture

EHK (Health Insurance Fund)
- EHK clerk
- EHK clerk: Web browser
- Health Insurance IS
- EHK RINA

TK (Unemployment Insurance Fund)
- TK clerk
- TK clerk: Web browser
- TK RINA

SKA (Social Insurance Board)
- SKA clerk
- SKA clerk: Web browser
- SKAIS2

MTA (Tax and Customs Board)
- MTA clerk
- MTA clerk: Web browser

X-Road

EE RINA web: Public internet

TEHIK (Health and Welfare Information Systems Center)

TEHIK EESSI AP domain
- EESSI AP

TEHIK RINA domain
- SKA RINA
- MTA RINA

TEHIK system services (National Access Services - NAS)
- Identity and Access Management
- Antimalware solution
- Archiving
- Message monitoring
- Audit Trail and Reporting

Repository
- Versioned media repository

Testa NG EESSI Backbone Network

Repository sharing: Public internet

Other Countries
- EESSI AP

Central services
- CSN
- EESSI repositry and codebase

EESSI national solution needs secure communication between central services provider (HWISC) and social security body

cmp Secure communication needed

HWISC

Access point

Messaging interface

EESSI AP

Technical Messaging Interface (TMI)

RINA

RINA

RINA

Case Processing Interface (CPI)

National Information Exchange Interface (NIE)

Public internet

Social security body with RINA installation

Technical Messaging Interface (TMI)

RINA

TMI is based on AS4 protocol

Social security body connected to HWISC RINA

National Application

Case Processing Interface (CPI)

National Information Exchange Interface (NIE)
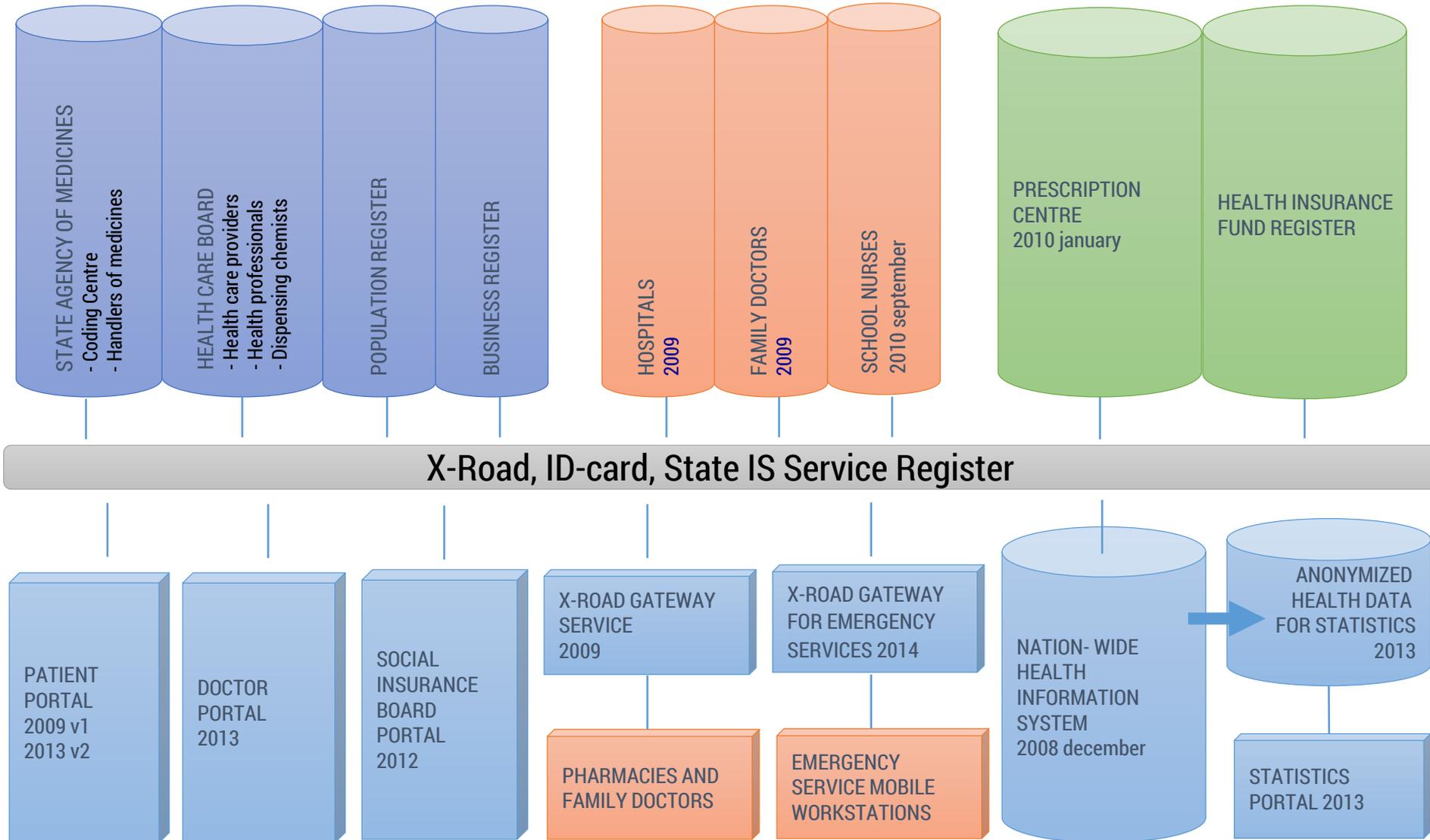
CPI and NIE are based on REST/JSON

EESSI – ASN4 and REST/JSON over X-road for transparent secure communication
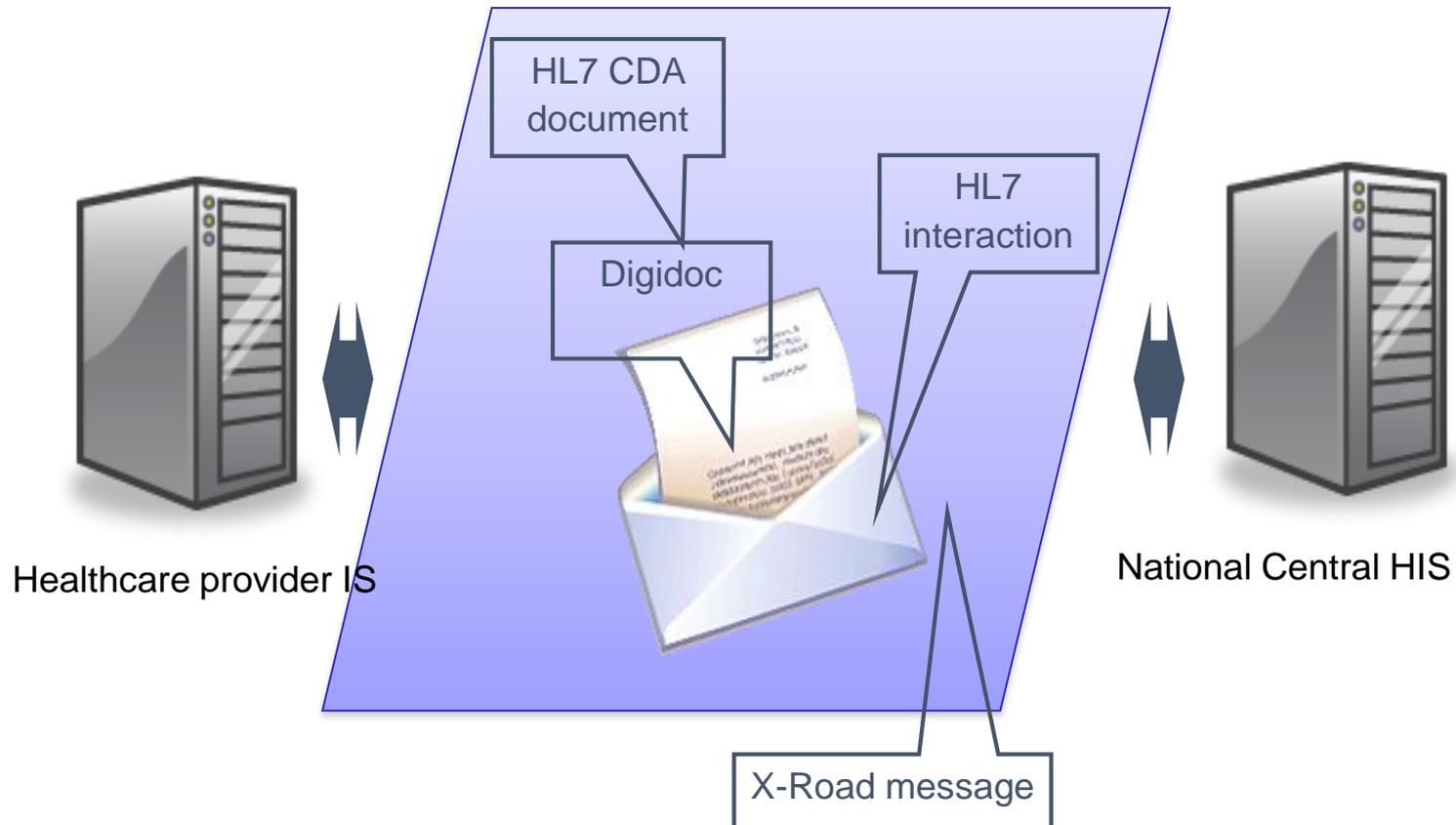
If we want to secure communication between EESSI component using X-road we need AS4 adapter and REST/JSON adapter for X-road.

Estonian eHealth architecture

HIS integration through X-Road

HL7 FHIR - new popular standard in e-health

FHIR - fast healthcare interoperability resources

FHIR common interface is REST/JSON

If we want to implement FHIR in Estonian Central Health Information System, X-road is required for secure communication.

REST/JSON over X-road?

Thank You!

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