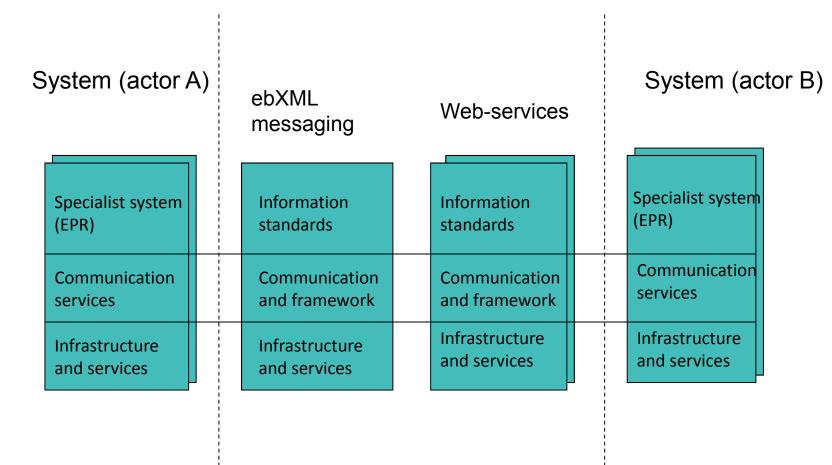


Testing and certification in Norway Interoperability testing in the health care sector

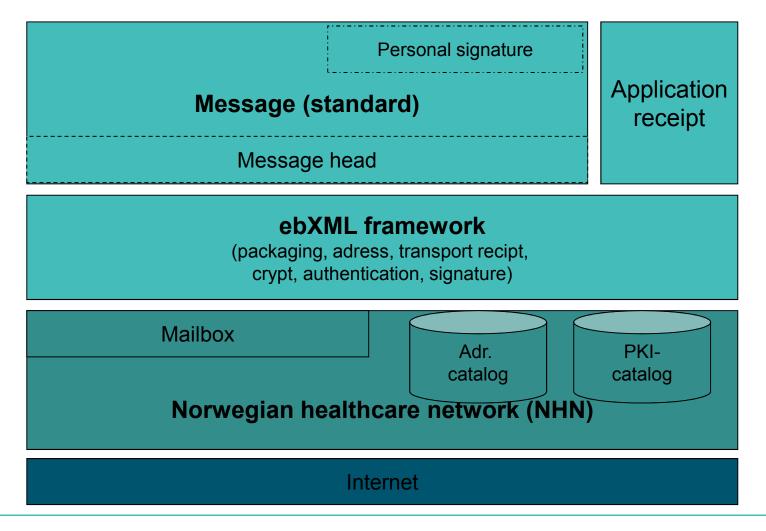
Odense 2014.01.21



Interoperability framework



Interoperability framework



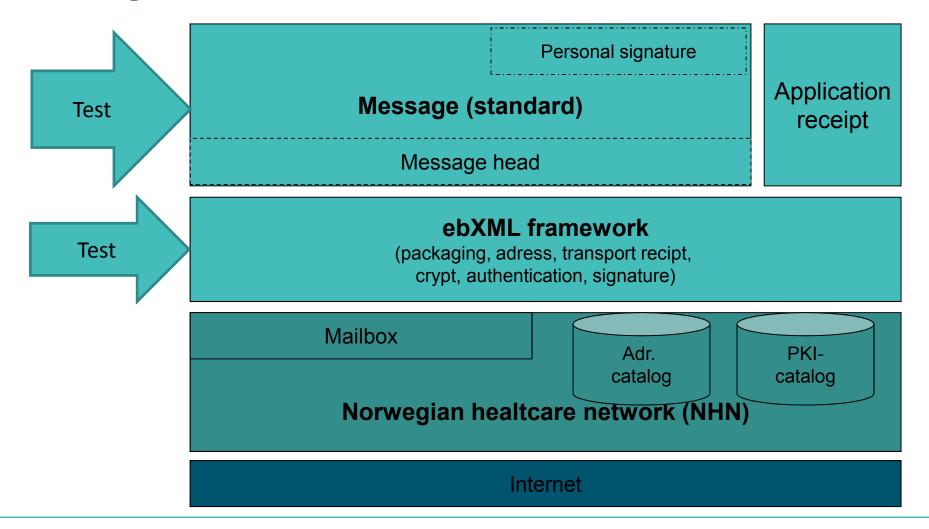


History of testing/certification in Norway

- KITH AS started Test and ceritifcation on assignment from Norwegian directorate of health in 2005
- The first years was used to build test tools and test the most common messages used in the healthcare sector
- More than 400 message implementations have been certified since the start
- About 1/3 of the message implementations tested is never certified because of deficiencies in the implementation
- KITH AS became a part of the Norwegian directorate of Health 01-01-2012



Test goals





Test and certification

- Test the implementation of the interoperability framework by the different actors in the Norwegian health care sector
- Focus on the syntax and semantics in the XML documents used for communication
- The certification is voluntary



Test procedure

- Norwegian directorate of Health publishes a test document for every XML-message, the test documents are divided in two parts:
 - Test cases to be sent/received by the system
 - A declaration, stating that the system is in accordance with the list of requirements, possible to document deviations
- The system developer imports/sends the test cases from/to the system and documents the results of the testing
- The system developer fills out the declaration form and documents the UI with screenshots
- The Directorate of Health evaluates the documentation and reports deviations back to the developer



Evaluation

- The Norwegian Directorate of Health evaluates the XML according to:
 - XML syntax
 - Coding and representation of the medical information
 - Coding and representation of the administrative information
 - Core functions of the system must be present
 - Adressing and patient information
 - The implementation of the Application reciept
- Screenshots:
 - Presentation of the information to the user



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Adresseregister... 🕐 TOGAF® 9.1 🗠 Bokmålsordbok... 👌 Audio Station 📮 Forside - Bæru... 📮 Plan/byggesak ... 🔤 Synology DiskSt... 📰 Photography in ... 👌 DragonTail Ma... 🗋 Piex Itt 🗋 Weew Siden oppdateres fortløpende

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Test tools

- Validation server (testserver.kith.no)
 - Automatic validation of XML from the system
- Test-wizard (testserver.kith.no/wizard)
 - Send and receive XML messages to/from the system to be tested
 - Fill out the declaration and post further documentation online
- The future: NHN is building a testcentre for even more elaborate and automatic testing



NHN TEST CENTER

Summit on Interoperability, Odense 21 January 2014

Helge Moe, head of department for project management NHN

norskhelsenett

Connects the Norwegian healthsector

- Established as a state enterprise on July 1st, 2009.
 Non-profit, owned by the Ministry of Health and Care services
- «The Health Network is the sum of all connected parties, the solutions they use and the communication services and components that facilitate a secure information exchange»
- 250.000 potential users:
 - All public and private hospitals
 - > 98 % of the general practitioners
 - All 428 municipalities;
 - > 700 dental clinics
 - All pharmacies
- >600k unique electronic messages per day
- Operating and presenting national ICT-services
- 24/7 monitoring of security and quality of network and services, user assistance and helpdesk.
- >100 third party service providers



norskhelsenett

BACKGROUND

- In 2013, the Ministry of Health and Care services gave NHN the task of establishing a national test center for electronic messages.
- No official requirements for participation or certification.
- Challenges with the suppliers of EPR-systems regarding contractual obligations
- Physical test lab is being established «virtual health network»
- Ongoing dialogue with the norwegian healthcare sector about the objectives for the test center.



POSSIBLE OBJECTIVES

- EPR system interoperatibility
- Life-cycle testing of different electronic messages based on real-life scenarios.
- Coordinate correction of errors on behalf of the healthcare sector.
- Offer access to test instances of infrastructure services and national services to other parties in the health sector.
- Establish and maintain test cases and best-practice documents on testing.
- Certification of EPR-systems. Establish our own while waiting for official requirements...

