PKI in Danish Healthcare

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Danish health care IT

• MedCom
  • The Danish Centre for Health Telematics
  • Coordinating organization for healthcare in Denmark
  • Manages Danish Health Data Network

• National Board of Health for Denmark
  • Developed the data model and terminology server for the system
  • Leads health IT strategy

• Ministry of Science, Technology, and Innovation (MTVU), Denmark
  • Develops technical standards
  • Has recommended a standard for Service-Oriented Architecture (SoA) identity federation to be used in various Danish systems
Connected healthcare sector

• The National Board of Health provides connected healthcare sector by implementing a nationwide SoA for the secure sharing of data

• Healthcare professionals have access to all relevant HER data regardless of where citizens seek treatment

• Denmark has robust broadband access

• Hospitals use electronic medical records
PKI in Denmark

• Denmark has built its PKI on top of existing Virtual Private Network (VPN)
• SAML has been selected as the framework for identity federation and the exchange of authentication assertions
• Healthcare professions are issued DanID, a X.509 certificate from Danish OECS CA
User authentication in Danish health system

- User authenticates as a part of login to local HER system
  - A digitally signed SAML assertion – virtual health professional identity card is created
- Central security token service (STS) validates digital signature
- STS signs the SAML token and sends a response to the local system – token expires in 24 hours
Lessons from Denmark’s system

• Uses existing infrastructure and technologies
• Adopted open standards and technologies