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Norsk Helsenett's Secure Token Service (NTS):

Opportunities for centralized authentication and access control support

Peter Holmes (FHI)

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Preliminaries

- Nasjonalt Folkehelseinstitutt (FHI)

  Norwegian Institute of Public Health (NIPH):

  – vision: “a healthier population”

  – national competence institution for governmental authorities

  – responsible for 10 of 15 central health registries

    - SYSVAK (vaccinations)
    - MSIS (communicable diseases)
    - DÅR (cause-of-death)

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National health registries	Established	Responcible	Data processor
1. Causes of Death Registry	1925/1951	NIPH	Statistics Norway
2. Medical Birth Registry	1967	NIPH	NIPH
3. Registry of Pregnancy Termination	1979/2007	NIPH	NIPH
4. Norwegian Surveillance System for Communicable Diseases (MSIS)	1977	NIPH	NIPH
5. The Central Tuberculosis Registry	1962	NIPH	NIPH
6. National Immunisation Registry (SYSVAK)	1995	NIPH	NIPH
7. Norwegian Surveillance System for Antimicrobial Drug Resistance (NORM)	2003	NIPH	Univ. Hospital North Norway, Tromsø
8. Norwegian Surveillance System for Infections in Hospitals (NOIS)	2005	NIPH	NIPH
9. Norwegian Prescription Database (NorPD)	2004	NIPH	NIPH
10. Cancer Registry of Norway	1952	Helse Sør-Øst	Cancer Registry of Norway
11. Norwegian Patient Registry (NPR)	1997/2007	Norwegian Directorate of Health	Norwegian Directorate of Health, Trondheim
12. Norwegian Information System for the Nursing and Care Sector (IPLOS)	2006	Norwegian Directorate of Health	Statistics Norway
13. ePrescription	2008	Norwegian Directorate of Health	Ergo Group
14. Registry of the Norwegian Armed Forces Medical Services	2005	The Ministry of Defence	Armed Forces Medical
15. Norwegian Cardiovascular Disease Registry	2010	NIPH	NIPH

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Preliminaries (ii)

- Nasjonalt Folkehelseinstitutt (FHI):
  - five scientific divisions
    - Infectious Disease Control
    - Environmental Medicine
    - Epidemiology
    - Mental Health
    - Forensic Toxicology and Drug Abuse Research

  …plus division for Public Relations and Institute Resources

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Preliminaries (iii)

- own background:
  - education: Computer Science and Engineering
  - Norsk Regnesentral: applied research
  - FHI: IT project leader
    - register modernization and harmonization
    - electronic data capture
    - *not a security expert nor technology wizard*
- talk covers concepts and work started in 2008…
  - demonstrated in 2012
  - Norsk Helsenett has been NTS service developer and provider
  - FHI has been service ”bestiller” and consumer

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Preliminaries (iv)

- provisioning (authorization) vs. access control
  - FHI: provisioning not yet managed within a centralized architectural component…
- personal certificates
  - "personlig kvalifisert sertifikat" (Datatilsynet) vs. "nivå 4" innlogging / autentisering (ID Porten)
  - privately acquired certificates vs. certificates from employing organization

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Abbreviations & icons

- NHN
  - Norsk Helsenett
  - Norwegian Health Net
- Hdir
  - Helsedirektoratet
  - The Norwegian Directorate of Health
- HOD
  - Helse- og omsorgsdepartementet
  - The Ministry of Health and Care Services
- DIFI
  - Direktoratet for forvaltning og IKT
  - Agency for Public Management and eGovernment
- FHI
  - Nasjonalt folkehelseinstitutt
  - The Norwegian Institute of Public Health
- TpT
  - Tilgang-på-tvers
  - ”access across administrative domains”

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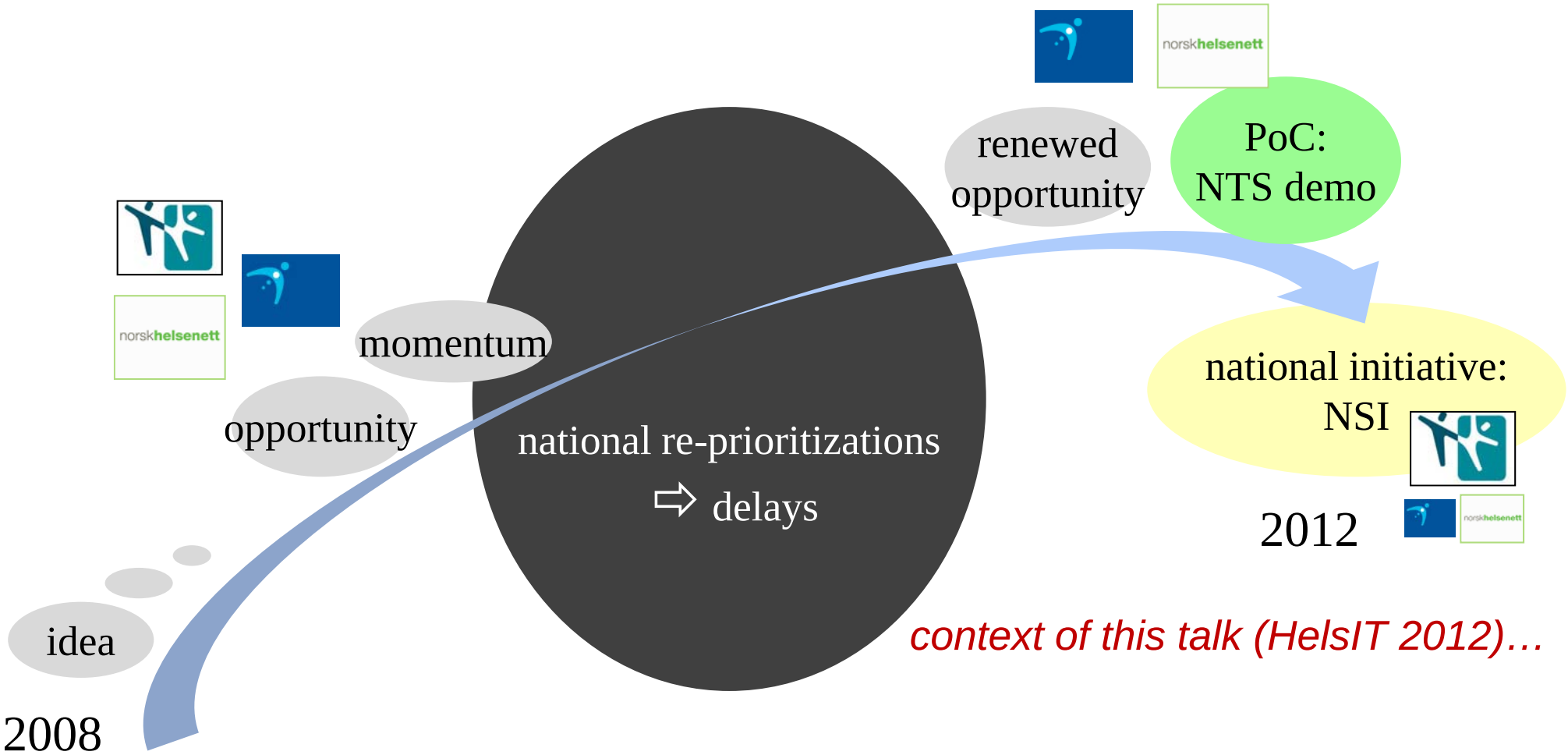
Timeline, context and agenda



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Objective of talk (HelsIT 2012)

- to describe the NTS concept and PoC
- to clarify its position with respect to the Norwegian Directorate of Health's pre-study (NSI):

  "National security infrastructure for the health care sector"

Message to NSI:

- NTS is a PoC, not a final and finished solution!

- however: NTS can be adapted to help address national needs

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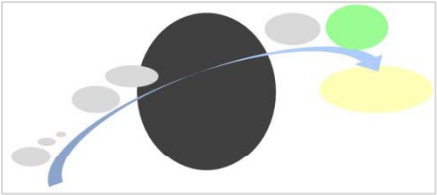
Agenda (slide count)



- present NTS motivation and background history (9)
- “fly-by” SYSVAK Web (the demonstration vehicle) (4)
- describe purpose of the NTS PoC (2)
- illustrate how NTS could be used (20)
- architectural characteristics (1)
- propose areas deserving further work and study (7)
- summary (6)

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NTS motivation and background

- FHI alone has responsibility for more than half of Norway's central health registers
- project to modernize SYSVAK (Nat'l. vaccination register)
  - opportunity for registration and search *services*
  - possibility for web-based registration app.
    - discussions with the Norwegian Data Protection Authority begin in 2007
- SYSVAKs design service-oriented
  - new *message-based* SYSVAK opened Dec. 2008

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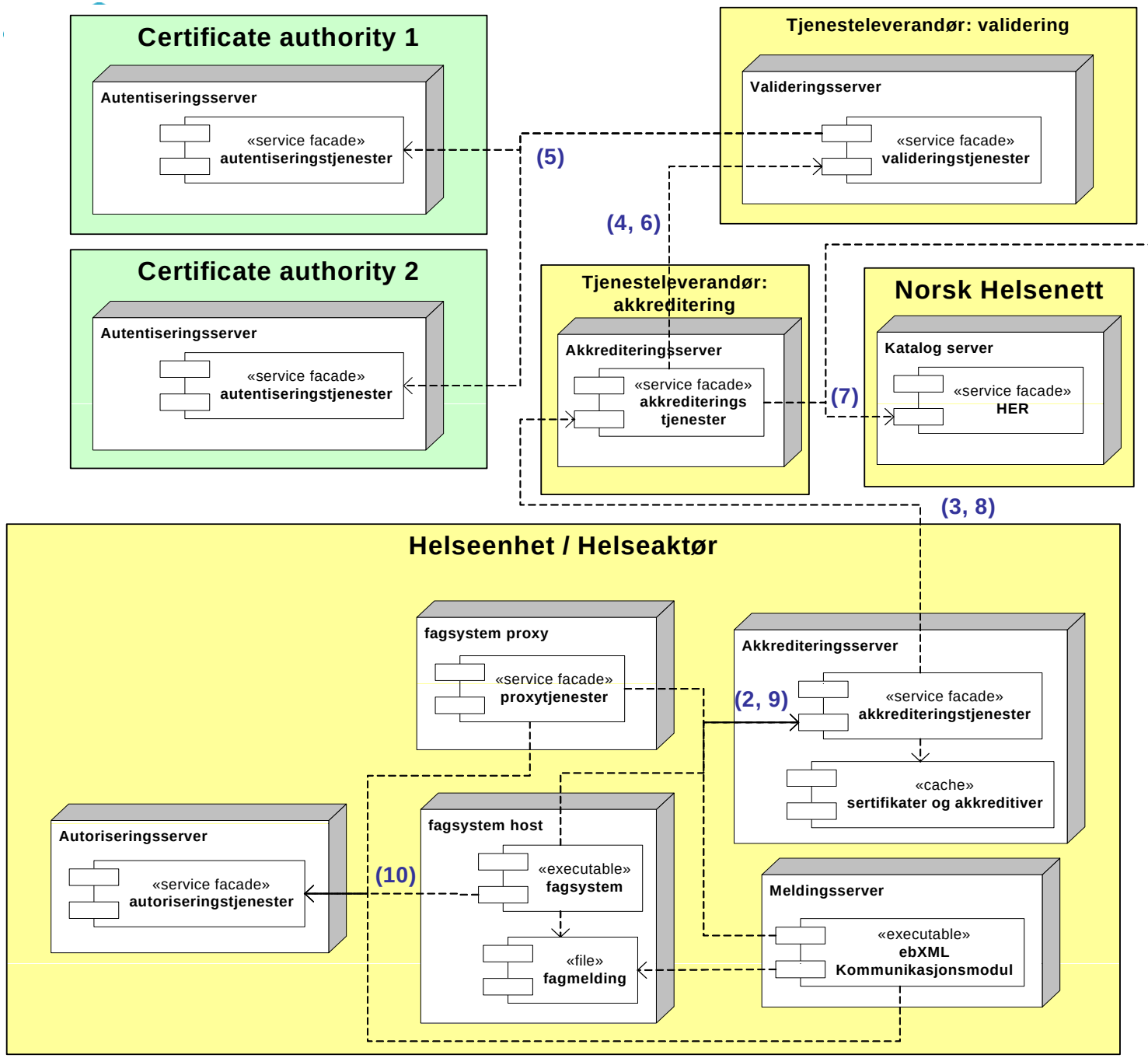
NTS motivation and background (ii)

- 2008
  - FHI proposes a “centralized accreditation service” for (S)HDIR and Norsk Helsenett
  - no actor able / ready to lead a pre-project



Scenario

1) sertifikat mottat av H-enhetens
- meldingsserver
- fagsystem
- fagsystem proxy
(initiativtaker m.h.p. akkrediteringstjenesten)

2) sertifikatet sendes til H-enhetens akkrediteringsserver

3) H-enhetens akkrediteringsserver sender sertifikatet til sentral leverandør av akkrediteringstjenester

4) den sentrale akkrediteringstjenesten sender sertifikatet til sentral leverandør av valideringstjenester

5) den sentrale valideringstjenesten sjekker med relevant CA og får info om:
- at sertifikatet er ekte og ikke 'revoked'
- sertifikateierens Fnr

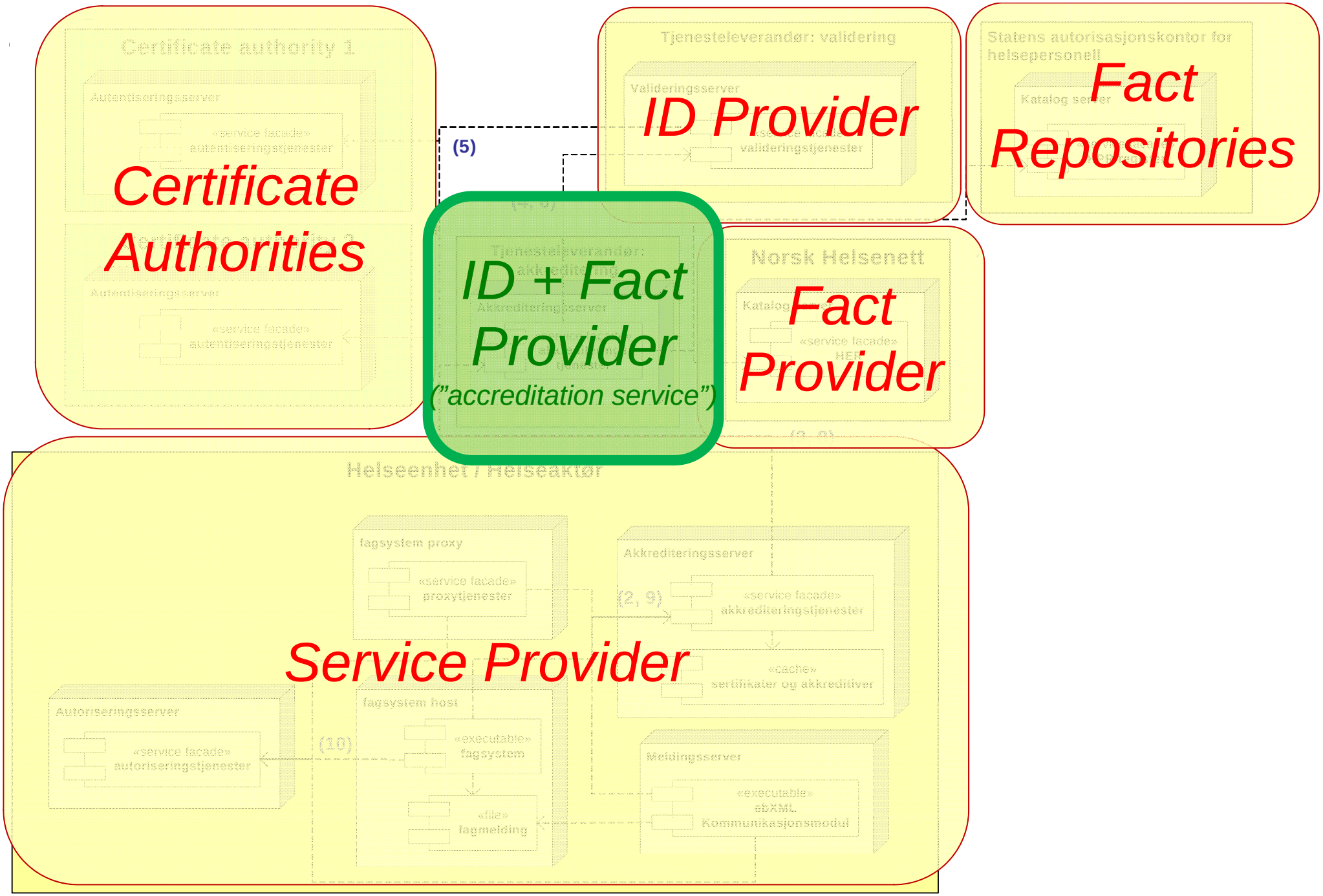
6) den sentrale akkrediteringstjenesten får svar info fra den sentrale valideringstjenesten

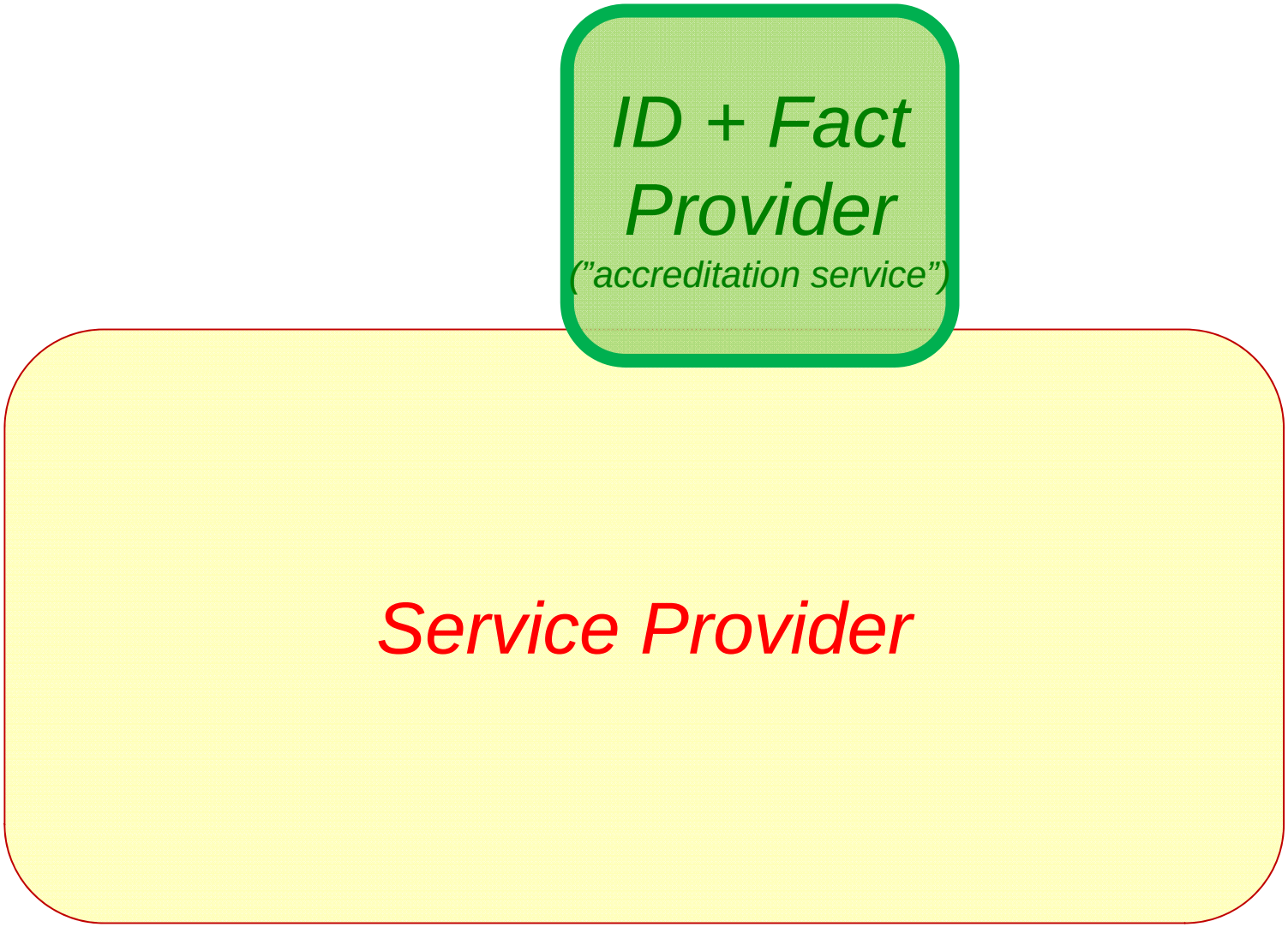
7) den sentrale akkrediteringstjenesten sender Fnr og evt. sertifikatet til NHN og SAFH og får info om sertifikateierens akkreditiver, f.eks.:
- HPR-nummer + evt. HER-ID
- kategori helsepersonell (kodeverk 9060)
- organisatoriske tilknytninger samt roller

8) den sentrale akkrediteringstjenesten leverer svar info til H-enhetens akkrediteringstjeneste

9) H-enhetens akkrediteringstjeneste returnerer svar og info til initiativtaker

10) *opsjon:* initiativtaker ber om interne autoriseringstjenester


Certificate authority 1
Autentiseringsserver
«service facade»
autentiseringstjenester
Certificate Authorities
(5)
Tjenesteleverandør: validering
Valideringsserver
«service facade»
valideringstjenester
ID Provider
Statens autorisasjonskontor for helsepersonell
Katalog server
Fact Repositories
ID + Fact Provider
("accreditation service")
Norsk Helsenett
Katalog server
«service facade»
HER
Fact Provider
Helseenhet / Helseaktør
fagsystem proxy
«service facade»
proxytjenester
Akkrediteringsserver
(2, 9)
«service facade»
akkrediteringstjenester
«cache»
sertifikater og akkreditiver
Service Provider
Autoriseringsserver
«service facade»
autoriseringstjenester
(10)
fagsystem host
«executable»
fagsystem
«file»
fagmelding
Meldingsserver
«executable»
ebXML
Kommunikasjonsmodul


ID + Fact Provider
("accreditation service")
Service Provider

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NTS motivation and background (iii)

- 2009 (A1H1 pandemi)
  - PANVAK: a simple web-registration system
    - authenitication via MinID
    - access control based on weekly copies of HPR data
  - HPR copies and semi-manual update archaic

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NTS motivation and background (iv)

- 2010: ’Dagens Helsetall’
  - FHI-initiated program of work
  - Mine registerdata project started in 2010
- Mine registerdata project goals
  - develop a solution for access to one’s own health data
  - drive efforts to establish a common accreditation service for the health sector

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NTS motivation and background (v)

- 2010-2011
  - HOD decides upon helesenorge.no
  - FHI proposes ”Mine vaksiner” project
    - FHI receives funding from Hdir
- project deliverables
  - to offer access to one’s own vaccination data
  - PoC to demonstrate access to FHIs health register data for health personnel (”NTS PoC”)
  - PoC for delivery of vaccination data as a service on Norsk Helsenetts service platform / service bus

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NTS motivation and background (vi)

- 2011
  - Helseinformasjonssikkerhetsforskriften (HISF)
- Q1 2012:
  - Mine vaksiner project's PoCs cancelled due to delays
  - Norsk Helsenett and FHI pursue the NTS PoC at own tempo
- Q2 2012:
  - SYSVAK Web technically completed, but without NTS use

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Agenda

- present NTS motivation and background history
- “fly-by” SYSVAK Web
- describe purpose of the NTS PoC
- illustrate how an NTS could be used
- examine its architectural characteristics
- propose areas deserving further work and study

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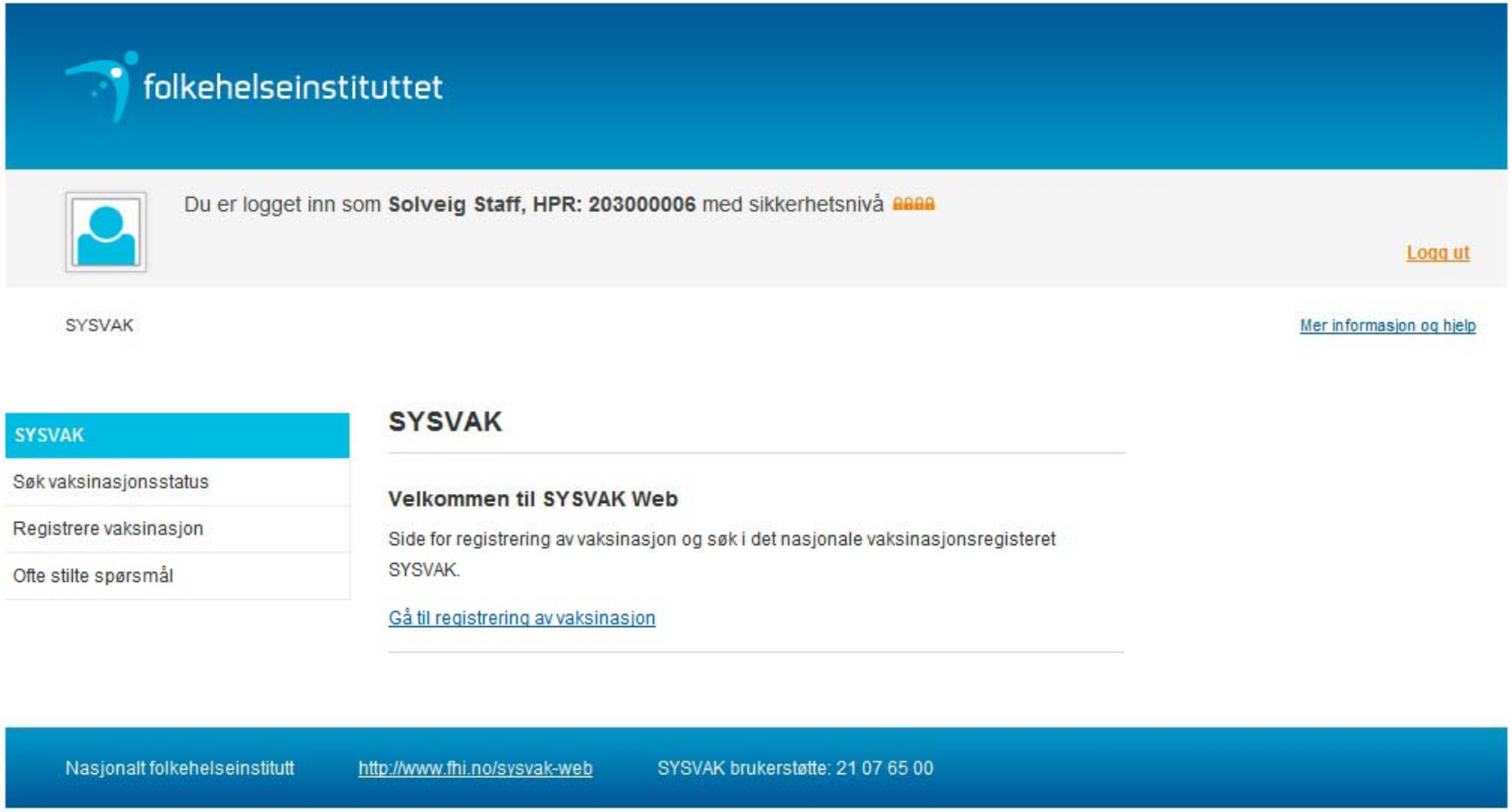
SYSVAK Web: hovedside



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SYSVAK Web: registrering

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Du er logget inn som **Solveig Staff, HPR: 203000006** med sikkerhetsnivå

Logg ut

SYSVAK > Registrere vaksinasjon

Mer informasjon og hjelp

SYSVAK

- Søk vaksinasjonsstatus
- **Registrere vaksinasjon**
- Ofte stilte spørsmål

Registrere vaksinasjon

Alle felter merket med ★ må fylles ut.

Fødselsnummer: ★

Konsultasjonsdato: ★

Preparat: ★ Velg...

Vaksinekode: *Velg preparat først*

Batchnr (Lot):

Satt på stedet: ★ Ja Nei

Dokumentasjon: Velg...

Nullstill Lagre

Nasjonalt folkehelseinstitutt http://www.fhi.no/sysvak-web SYSVAK brukerstøtte: 21 07 65 00

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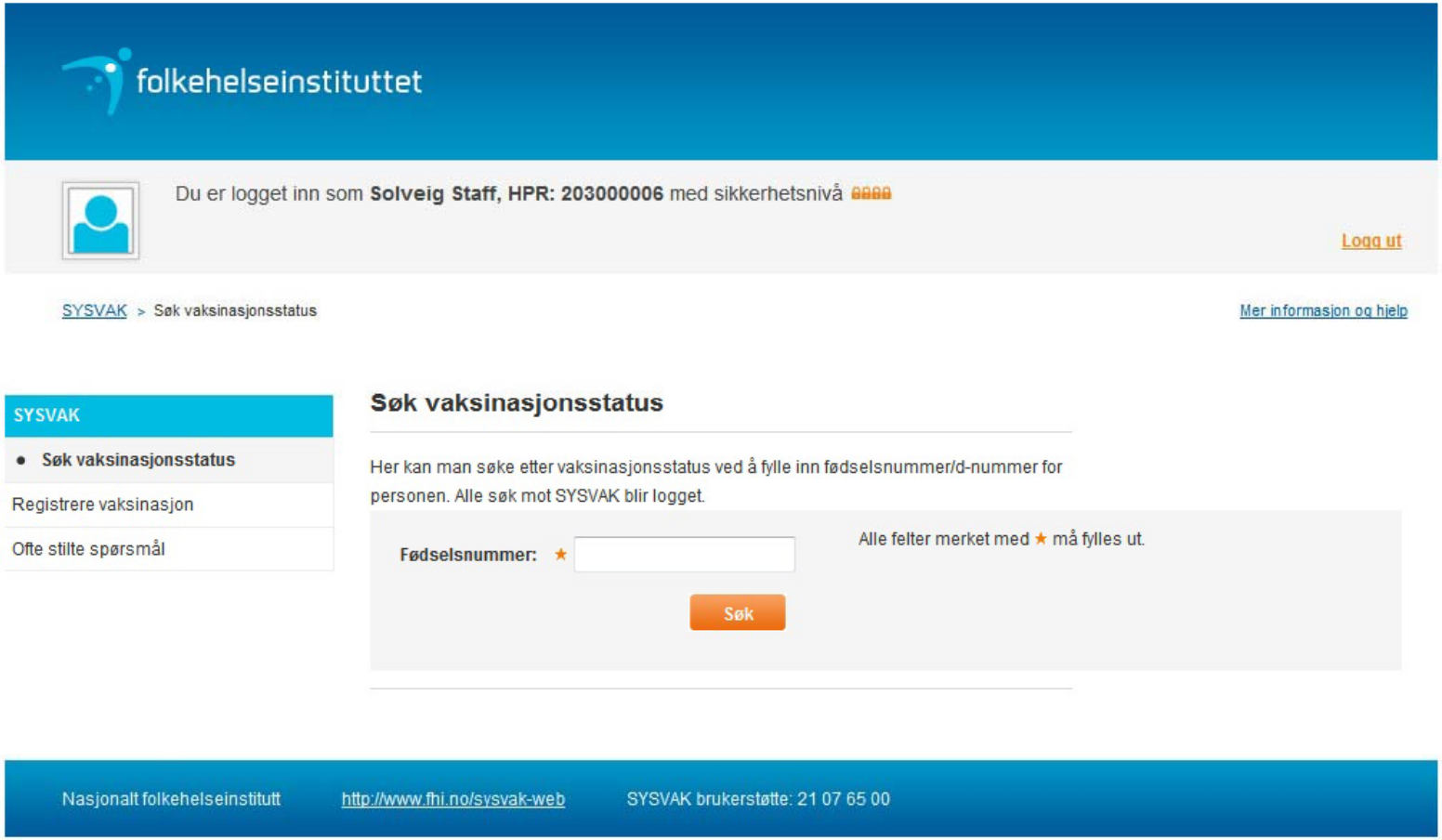
SYSVAK Web: søk



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SYSVAK Web: søkresultat

SYSVAK

- Søk vaksinasjonsstatus

Registrere vaksinasjon

Ofte stilte spørsmål

Søk vaksinasjonsstatus

Her kan man søke etter vaksinasjonsstatus ved å fylle inn fødselsnummer/d-nummer for personen. Alle søk mot SYSVAK blir logget.

Fødselsnummer: ★

Alle felter merket med ★ må fylles ut.

Søk

Vaksinasjonskort	**Certificate of Vaccination**	
Etternavn	Last name:	**Gundersen**
Fornavn	First name:	**Roland**
Fødselsnummer	National ID number:	**15076500565**

Vaksinasjon **Vaccination**	**Vaksinasjonsdato** **Vaccination date**	**(dd.mm.åååå)** **(dd.mm.yyyy)**
Difteri Diphteria	01.10.1965 15.03.2012	
HPV-infeksjon HPV-infection	29.06.2011 06.03.2012 28.03.2012	
Stivkrampe Tetanus	15.03.2012	

Dette er en utskrift fra Nasjonalt vaksinasjonsregister (SYSVAK) ved Nasjonalt folkehelseinstitutt.
Opplysningene er ikke bekreftet fra lokal helseinstitusjon og kan mangle registreringer eller inneholde feil.

This is a printout from National Vaccination Register (SYSVAK) at the Norwegian Institute of Public Health. This information has not been confirmed with respect to the individual's medical records and can therefore be incomplete or contain erroneous data.

Utstedelsesdato - Date of issue: 24.08.2012
Kilde - Source: Nasjonalt folkehelseinstitutt, Norwegian Institute of Public Health
SYSVAK - System for vaksinasjonskontroll, The Norwegian Monitoring System of Vaccination

Skriv ut

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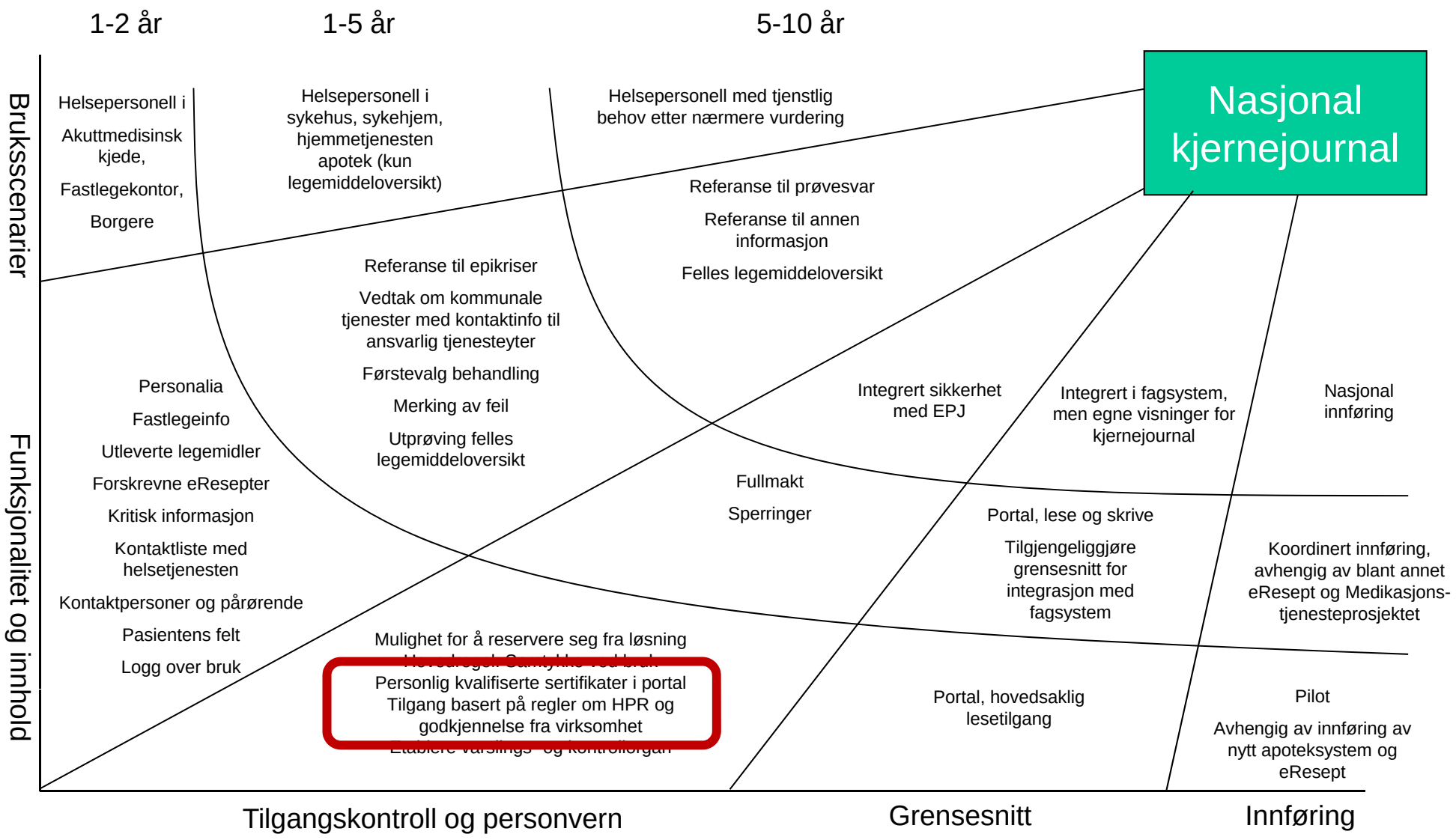
Purpose of the NTS PoC

- to study and address core issues around centralized support for authentication and access control
  - architectural investigation
  - technology validation

Kjernejournal (målbilde)…

Kjernejournal - funksjonelt målbilde



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NTS concept and variations of possible use

- contrast with SYSVAK Web prod
- NTS use: logical overview of alternatives
- NTS evolution: use of alternative ID providers

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NTS concept

- contrast with SYSVAK Web prod
- NTS use: logical overview of alternatives
- NTS evolution: use of alternative ID providers

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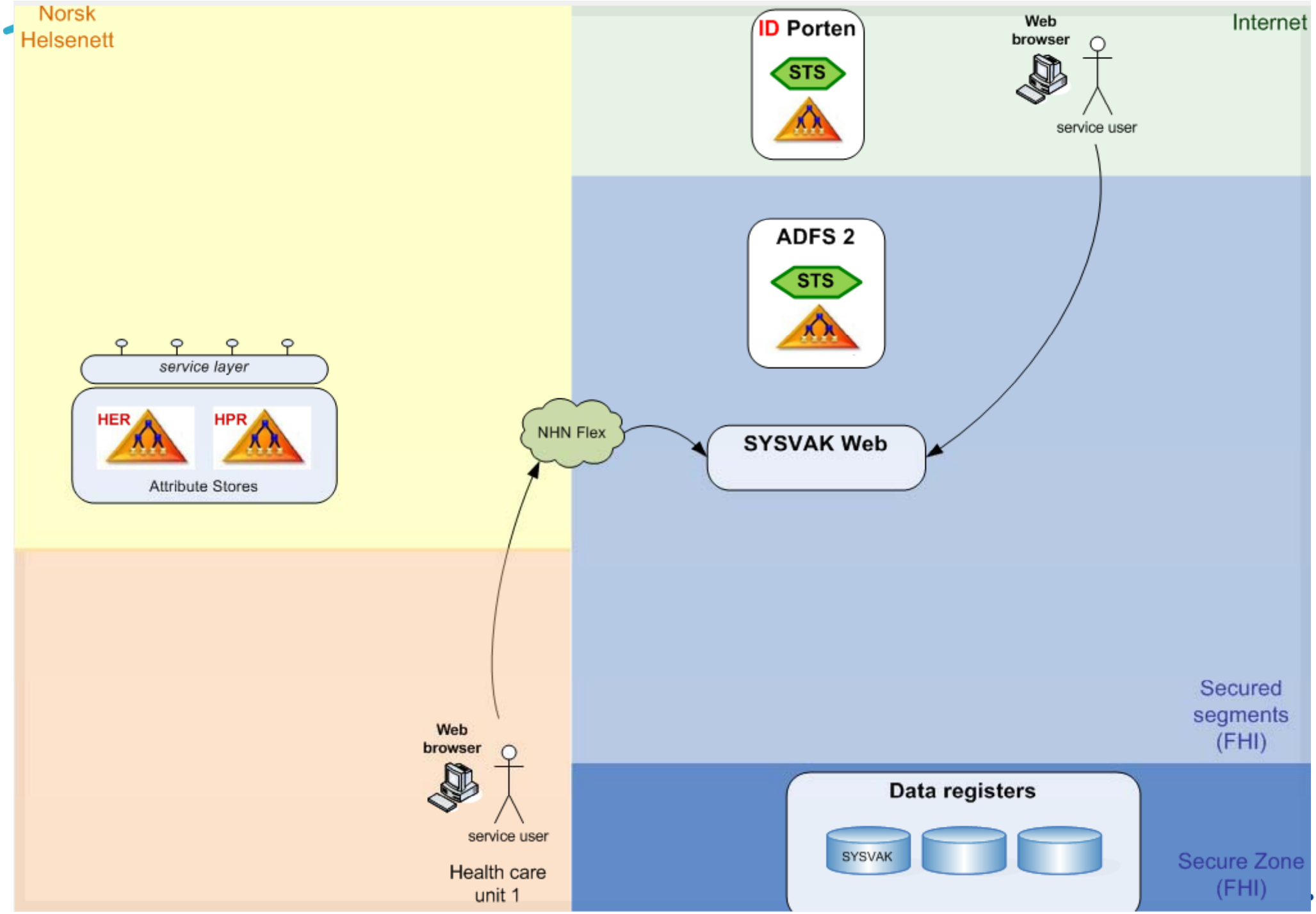
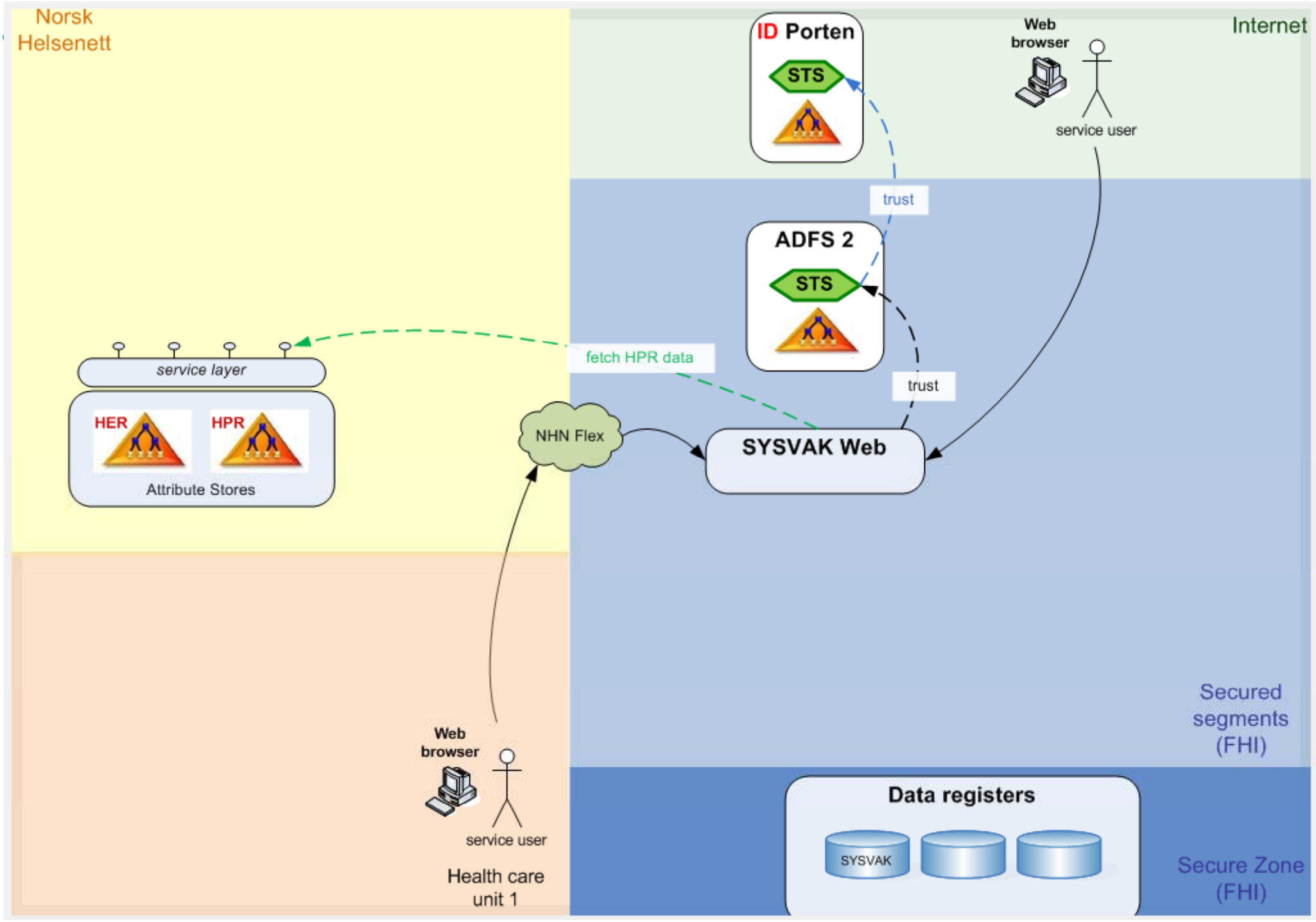
SYSVAK Web

- deployment pending fulfillment of legal relations
- no NTS use


Norsk Helsenett
Internet
ID Porten
STS
Web browser
service user
ADFS 2
STS
service layer
HER
HPR
Attribute Stores
NHN Flex
SYSVAK Web
Secured segments (FHI)
Web browser
service user
Health care unit 1
Data registers
SYSVAK
Secure Zone (FHI)


Norsk Helsenett
Internet
ID Porten
STS
Web browser
service user
trust
ADFS 2
STS
trust
fetch HPR data
service layer
HER
HPR
Attribute Stores
NHN Flex
SYSVAK Web
Secured segments (FHI)
Web browser
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Health care unit 1
Data registers
SYSVAK
Secure Zone (FHI)

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NTS concept

- contrast with SYSVAK Web prod
- NTS use: logical overview of alternatives
- NTS evolution: logical overview of alternatives

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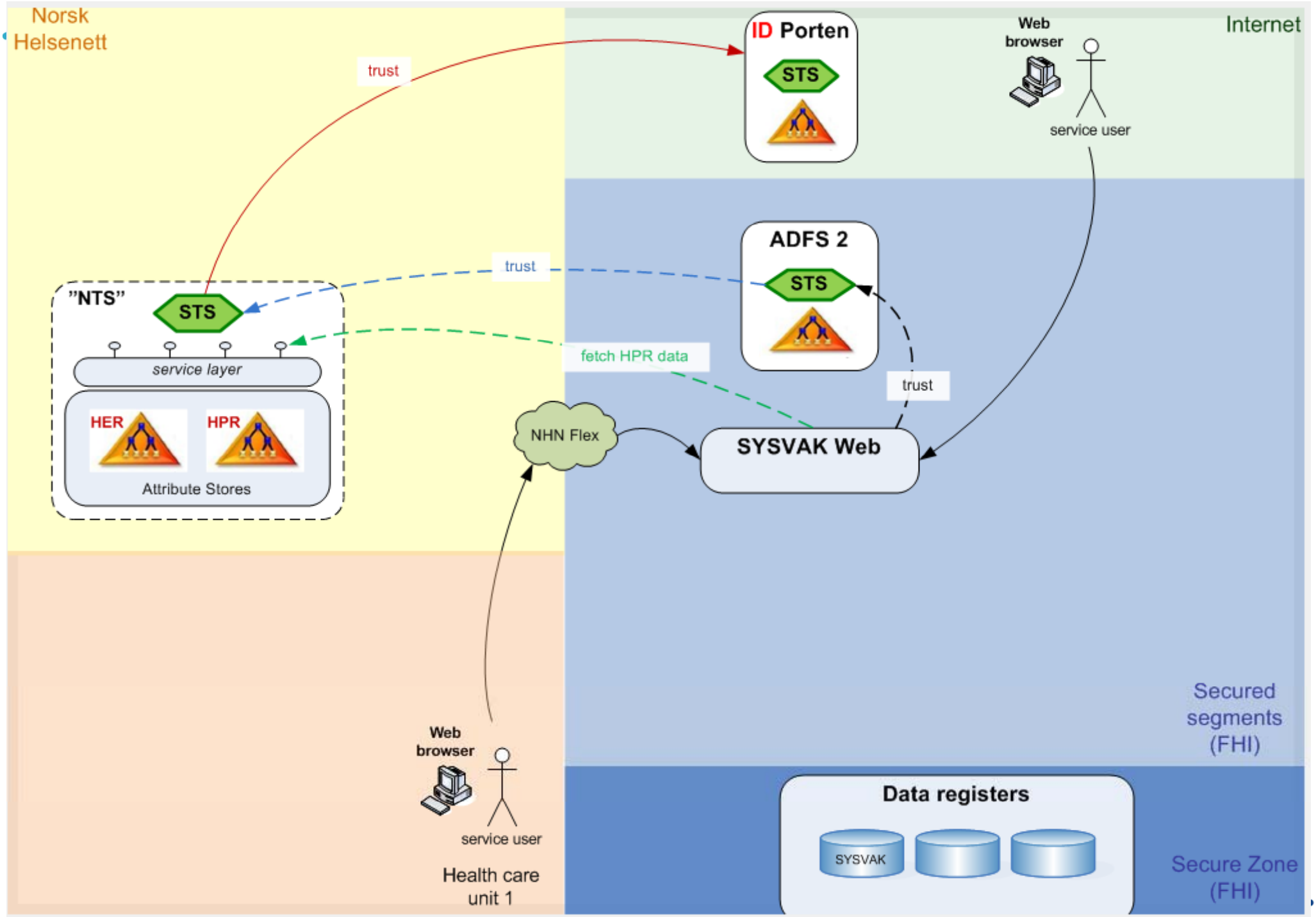
NTS use: logical overview of alternatives

- for authentication support only:

  1) NTS uses an ID provider for authentication*

  2) call from application to NHNs HPR service to obtain attributes for access control

**NTS PoC offers either ID-porten or another ID provider*


Norsk Helsenett
Internet
ID Porten
STS
Web browser
service user
trust
ADFS 2
STS
trust
"NTS"
STS
service layer
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HPR
Attribute Stores
fetch HPR data
trust
NHN Flex
SYSVAK Web
Secured segments (FHI)
Web browser
service user
Health care unit 1
Data registers
SYSVAK
Secure Zone (FHI)

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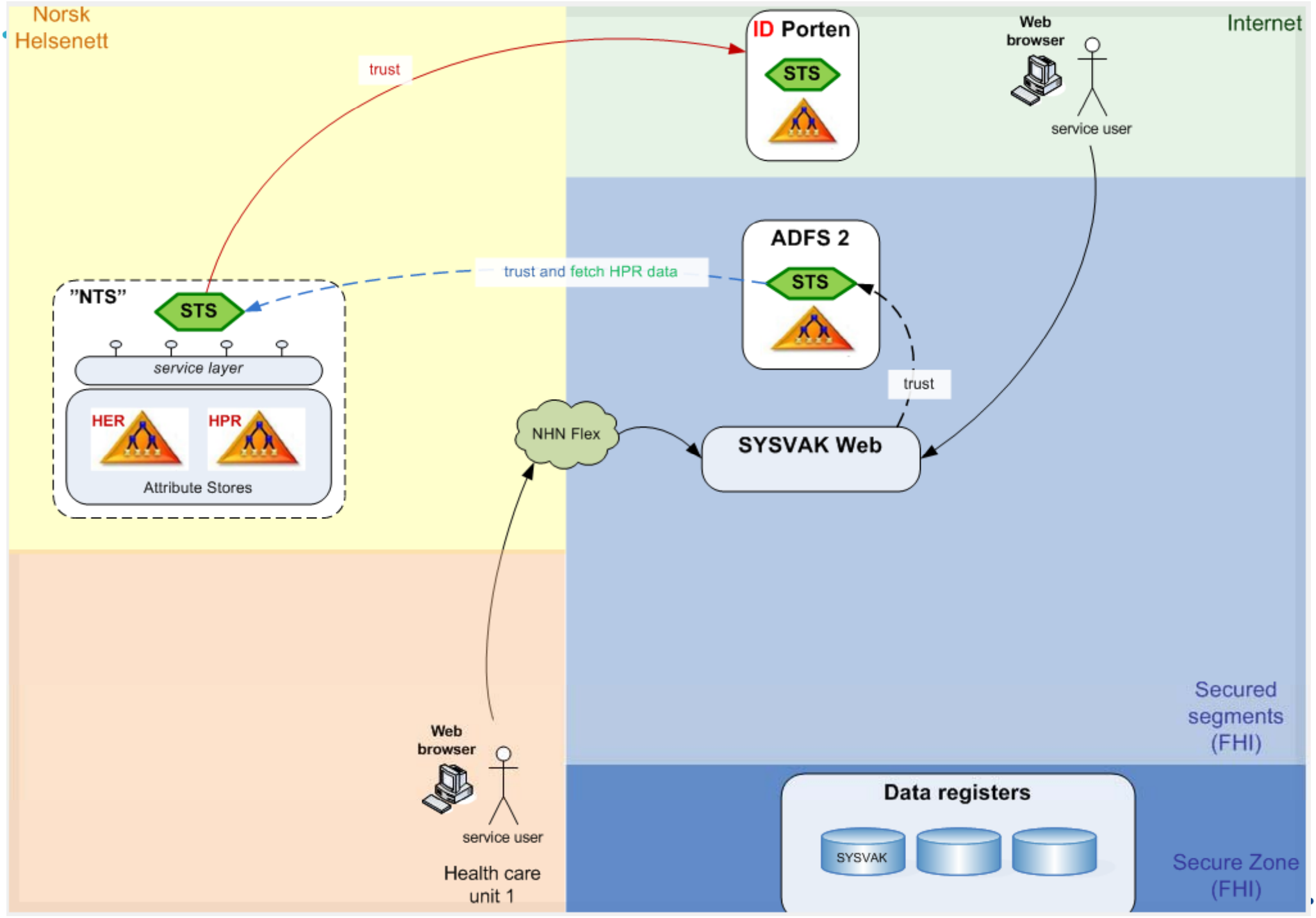
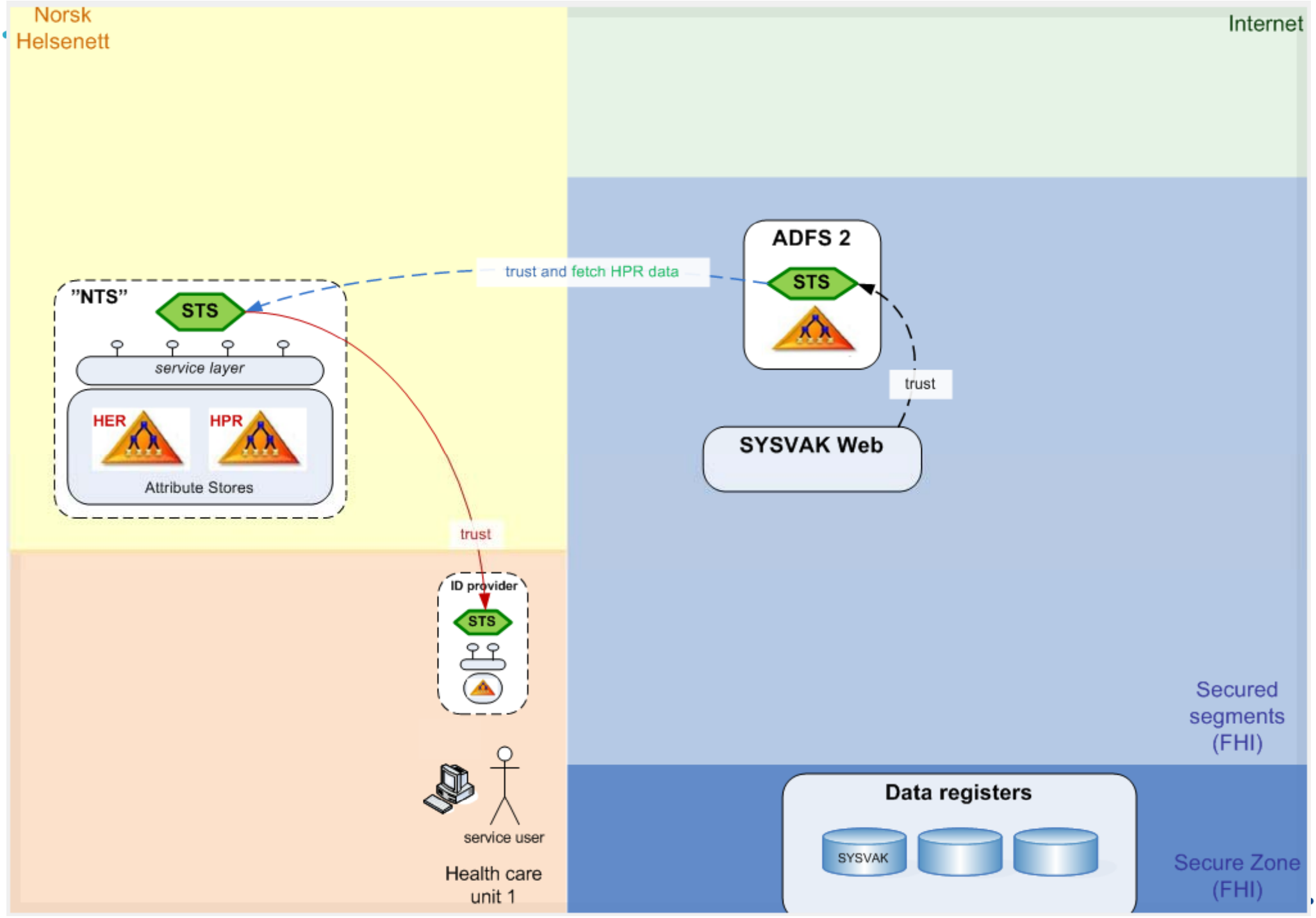
NTS use: logical overview of alternatives

- for authentication and access control support
  - NTS uses an ID provider for authentication
  - NTS returns token which includes HPR attributes


Norsk Helsenett
Internet
ID Porten
STS
Web browser
service user
trust
ADFS 2
STS
trust and fetch HPR data
"NTS"
STS
service layer
HER
HPR
Attribute Stores
trust
NHN Flex
SYSVAK Web
Secured segments (FHI)
Web browser
service user
Health care unit 1
Data registers
SYSVAK
Secure Zone (FHI)


Norsk Helsenett
Internet
ADFS 2
STS
trust and fetch HPR data
"NTS"
STS
service layer
HER
HPR
Attribute Stores
trust
SYSVAK Web
trust
ID provider
STS
service user
Health care unit 1
Secured segments (FHI)
Data registers
SYSVAK
Secure Zone (FHI)

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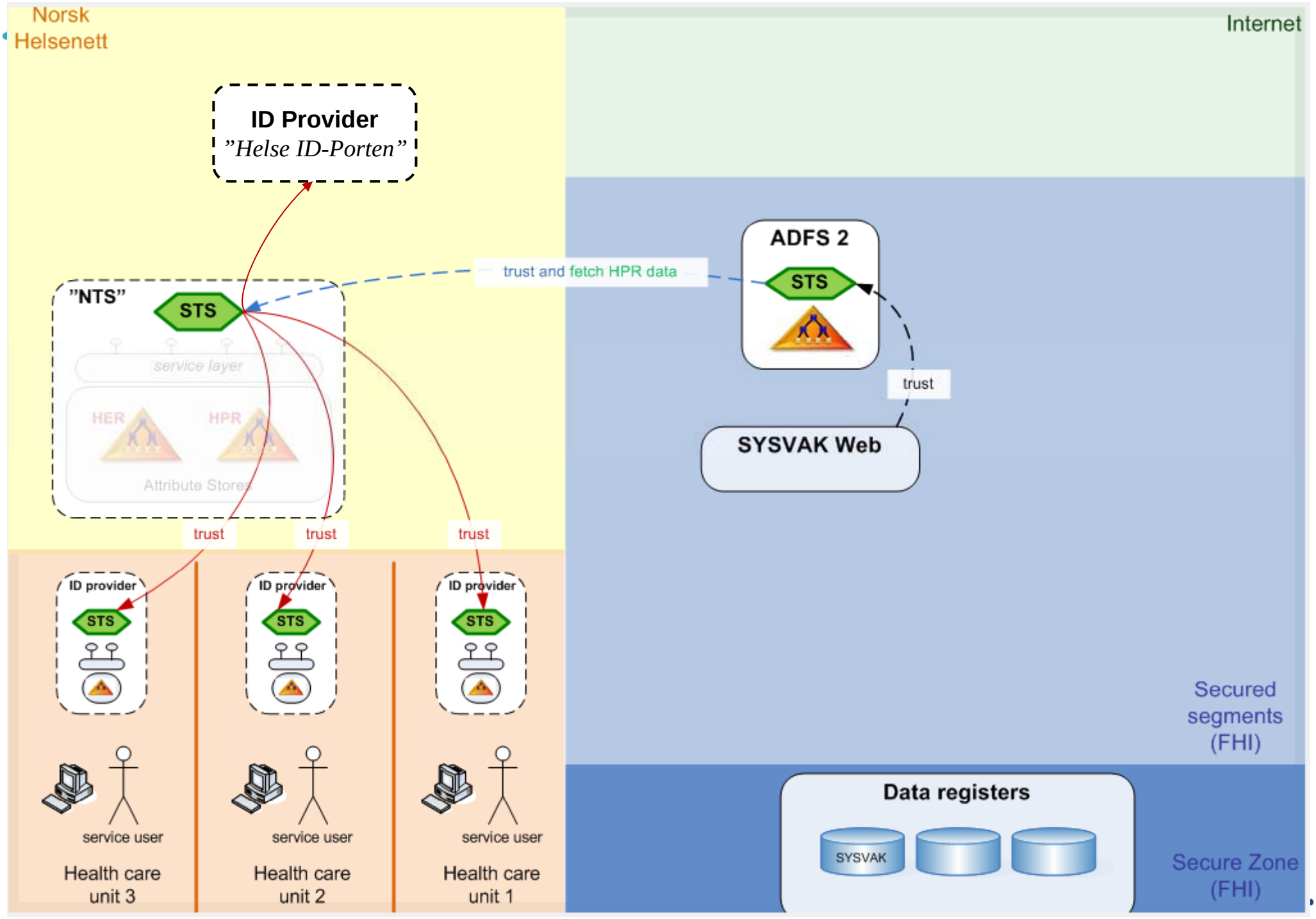
NTS concept

- contrast with SYSVAK Web prod
- NTS use: logical overview of alternatives
- NTS evolution: use of alternative ID providers


Norsk Helsenett
Internet
ID Provider
"Helse ID-Porten"
"NTS"
STS
service layer
HER
HPR
Attribute Stores
trust and fetch HPR data
ADFS 2
STS
trust
SYSVAK Web
trust
trust
trust
ID provider
STS
ID provider
STS
ID provider
STS
service user
service user
service user
Health care unit 3
Health care unit 2
Health care unit 1
Secured segments (FHI)
Data registers
SYSVAK
Secure Zone (FHI)

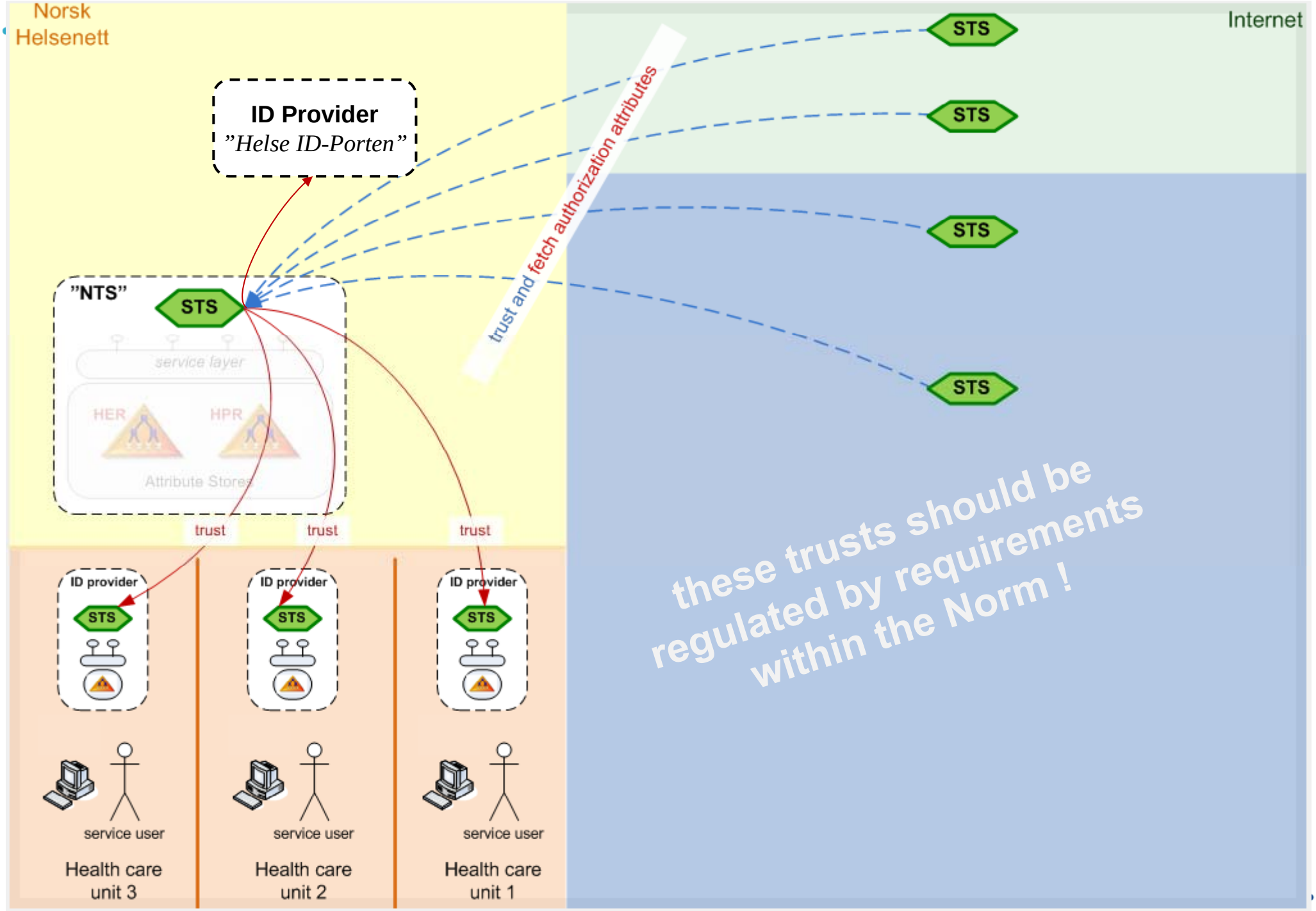

Norsk Helsenett
Internet
ID Provider
"Helse ID-Porten"
"NTS"
STS
service layer
HER
HPR
Attribute Stores
trust and fetch authorization attributes
STS
STS
STS
STS
trust
trust
trust
ID provider
STS
ID provider
STS
ID provider
STS
service user
service user
service user
Health care unit 3
Health care unit 2
Health care unit 1
these trusts should be regulated by requirements within the Norm !

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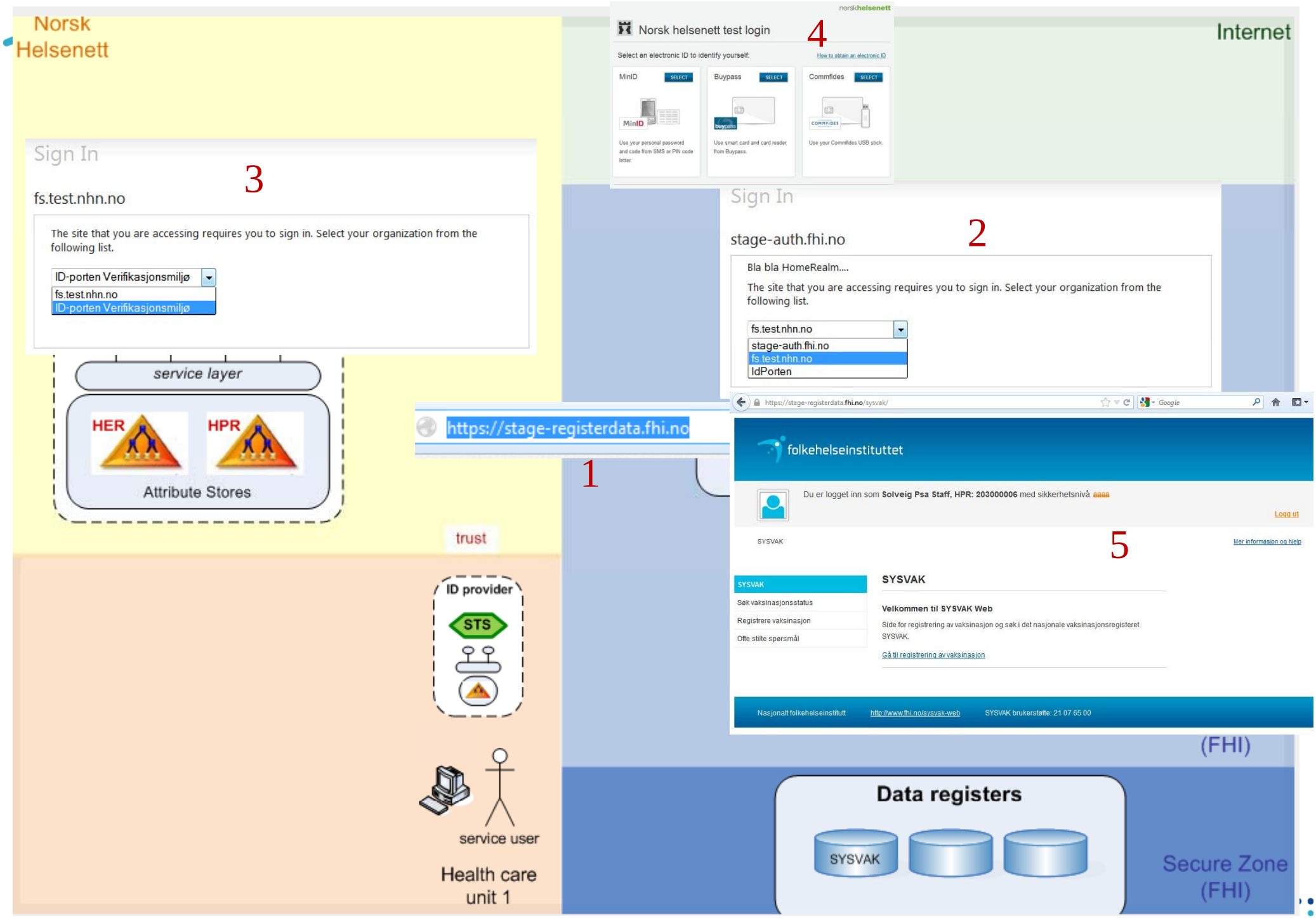
Illustration of NTS use (from demo)…


Norsk Helsenett
Internet
Norsk helsenett test login
4
Select an electronic ID to identify yourself:
How to obtain an electronic ID
MinID
SELECT
Use your personal password and code from SMS or PIN code letter.
Buypass
SELECT
Use smart card and card reader from Buypass.
Commfides
SELECT
Use your Commfides USB stick.
Sign In
3
fs.test.nhn.no
The site that you are accessing requires you to sign in. Select your organization from the following list.
ID-porten Verifikasjonsmiljø
fs.test.nhn.no
ID-porten Verifikasjonsmiljø
Sign In
stage-auth.fhi.no
2
Bla bla HomeRealm....
The site that you are accessing requires you to sign in. Select your organization from the following list.
fs.test.nhn.no
stage-auth.fhi.no
fs.test.nhn.no
IdPorten
service layer
HER
HPR
Attribute Stores
https://stage-registerdata.fhi.no
1
https://stage-registerdata.fhi.no/sysvak/
folkehelseinstituttet
Du er logget inn som Solveig Psa Staff, HPR: 203000006 med sikkerhetsnivå
Logg ut
SYSVAK
5
Mer informasjon og hjelp
SYSVAK
Søk vaksinasjonsstatus
Registrere vaksinasjon
Ofte stilte spørsmål
SYSVAK
Velkommen til SYSVAK Web
Side for registrering av vaksinasjon og søk i det nasjonale vaksinasjonsregisteret SYSVAK.
Gå til registrering av vaksinasjon
Nasjonalt folkehelseinstitutt
http://www.fhi.no/sysvak-web
SYSVAK brukerstøtte: 21 07 65 00
trust
ID provider
STS
(FHI)
Data registers
SYSVAK
service user
Health care unit 1
Secure Zone (FHI)

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https://stage-registerdata.fhi.no/sysvak/

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Du er logget inn som **Solveig Psa Staff** **HPR: 203000006** med sikkerhetsnivå

Logg ut

SYSVAK

Mer informasjon og hjelp

- SYSVAK
- Søk vaksinasjonsstatus
- Registrere vaksinasjon
- Ofte stilte spørsmål

SYSVAK

Velkommen til SYSVAK Web

Side for registrering av vaksinasjon og søk i det nasjonale vaksinasjonsregisteret SYSVAK.

Gå til registrering av vaksinasjon

Nasjonalt folkehelseinstitutt http://www.fhi.no/sysvak-web SYSVAK brukerstøtte: 21 07 65 00

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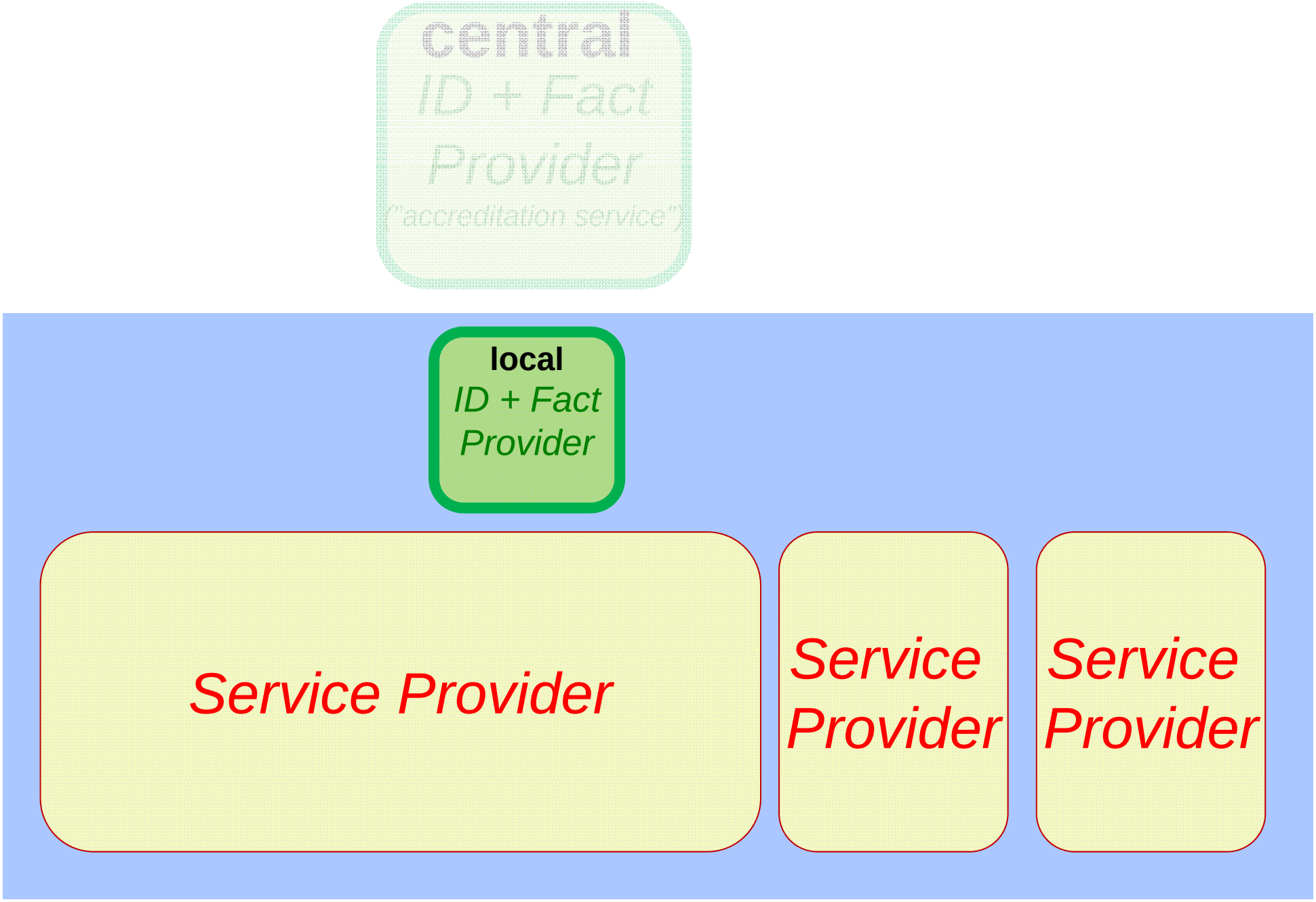
https://stage-registerdata.fhi.no/claims.aspx

Claims available for this application

ClaimType	Value	Issuer	OriginalIssuer
http://fhi.no/uid	04057800203	http://stage-auth.fhi.no /adfs/services/trust	idporten-ver1.difi.no
http://fhi.no/SecurityLevel	4	http://stage-auth.fhi.no /adfs/services/trust	idporten-ver1.difi.no
http://fhi.no/hprnumber	203000006	http://stage-auth.fhi.no /adfs/services/trust	http://fs.test.nhn.no /adfs/services/trust
http://fhi.no/firstname	Solveig	http://stage-auth.fhi.no /adfs/services/trust	http://fs.test.nhn.no /adfs/services/trust
http://fhi.no/lastname	Staff	http://stage-auth.fhi.no /adfs/services/trust	http://fs.test.nhn.no /adfs/services/trust
http://fhi.no/profession	Helsesøster	http://stage-auth.fhi.no /adfs/services/trust	http://fs.test.nhn.no /adfs/services/trust
http://fhi.no/requisitionright	Full rekvisisjonsrett	http://stage-auth.fhi.no /adfs/services/trust	http://fs.test.nhn.no /adfs/services/trust
http://schemas.microsoft.com/ws/2008 /06/identity/claims/authenticationmethod	http://schemas.microsoft.com/ws/2008/06/identity /authenticationmethod/smartcardpki	http://stage-auth.fhi.no /adfs/services/trust	http://stage-auth.fhi.no /adfs/services/trust
http://schemas.microsoft.com/ws/2008 /06/identity/claims/authenticationinstant	2012-09-06T09:22:01.000Z	http://stage-auth.fhi.no /adfs/services/trust	http://stage-auth.fhi.no /adfs/services/trust


central
ID + Fact
Provider
("accreditation service")
local
ID + Fact
Provider
Service Provider
Service
Provider
Service
Provider

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Architectural characteristics (DIFI)

- ”Overarching ICT Architecture Principles for the Public Sector”
  - Service-orientation
  - Interoperability
  - Accessibility
  - Security
  - Openness
  - Flexibility
  - Scalability
- NTS architecture reflects thoughtful consideration and application of these principles

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Areas deserving further work and study

- claim standardization
  - identify and specify claims needed to satisfy HISF
  - resolution of claim dependency issues
  - representation of claim dependencies

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Claim standardization

- identify and specify claims needed to satisfy HISF
  - SYSVAK Web motivated choice for claims within NTS PoC
    - claim source: verifiable facts vs. ”assertions” (egenerklæringer)
  - shared kodeverk for ’role’
- resolution of claim dependency issues
- representation of claim dependencies

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Candidate claims for standardization

Claim set							
claim concept	claim spec	comment	needed for TpT PoC	needed for andre FHI tjenester	needed for nasjonal standard	original kilde	kodeverk
<...> hprNummer	http://safh.no/hpr/claims/hprnumber	ref § 8, 16 (gir navn)	Ja	Ja	Ja	HPR	NA
<...> hprEtternavn	http://nhn.no/identity/claims/lastname		Ja	Ja	Ja	?	NA
<...> hprFornavn	http://nhn.no/identity/claims/firstname		Ja	Ja	Ja	?	NA
<...> hprMellomnavn	http://nhn.no/identity/claims/middlename		Ja	Ja	Ja	?	NA
<...> hprKategori	http://safh.no/hpr/claims/profession		Ja	?	Ja ?	HPR	SAFH / HPR
<...> hprAutorisasjon	http://safh.no/hpr/claims/authorization		Ja	?	Ja ?	HPR	SAFH / HPR
<...> hprSpesialitet	http://safh.no/hpr/claims/speciality		Nei			HPR	SAFH / HPR
securityLevel	http://nhn.no/identity/claims/securitylevel		Ja	Ja	Ja	ID-porten	
fødselsnummer	http://nhn.no/identity/claims/citizenid		Ja	Ja	Ja	ID-porten	
<...> hprRekvisisjonsrett	http://safh.no/hpr/claims/requisitionright		Nei	Ja	Ja ?	HPR	SAFH / HPR
<...> rolleIftPasient		ref § 8, 16	Nei		Ja	egenerklæring fra helseperson	OID 9034
<...> herOrgTilhørighet		ref § 16	Nei		Ja	HER	HER-ID
<...> formaalMedTilgang		ref § 8, 10, 16	Nei		Ja	egenerklæring fra helseperson	må lages
<...> pasientSamtykke		ref § 13	Nei	?	?	egenerklæring fra helseperson	må lages
<...> tilgangstyp		les, skriv			?	egenerklæring fra helseperson	må lages

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Helsepersonells funksjoner m.v. i forhold til pasient (OID=9034)

Beskrivelse
Dette kodeverket inneholder koder som benyttes for å angi hvilken funksjoner og roller helsepersonell har i forhold til pasienten. Primært beregnet til bruk i hodemeldingen.

Organisasjoner
Ansvarlig organisasjon KITH AS
Registrert av KITH AS

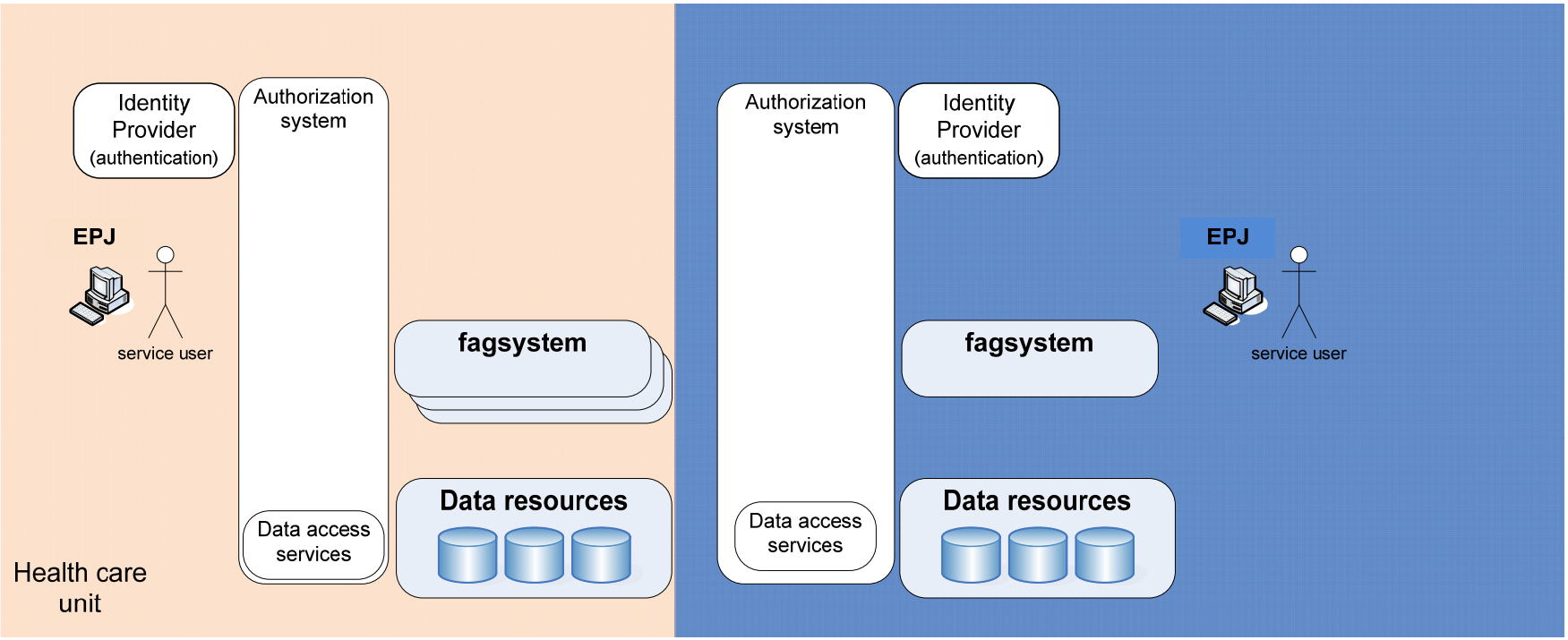
Inngår i
EPJ-standard

Status
Per 10. februar 2011: Til utprøving

Kodeverdier

1	Pasientansvarlig lege	Spesialisthelsetjenesteloven § 3-7 m.fl.
2	Pasientansvarlig psykolog	Spesialisthelsetjenesteloven § 3-7 m.fl.
3	Behandlingsansvarlig lege	Flere bestemmelser
4	Journalansvarlig	Helsepersonelloven § 39
5	Informasjonsansvarlig	Helsepersonelloven § 10
6	Fastlege	Kommunehelsetjenesteloven § 2-1a
7	Faglig ansvarlig for vedtak i psykisk helsevern	Egen forskrift
8	Koordinator Individuel plan	Forskrift om individuelle planer etter helselovgivningen § 5
9	Primærkontakt	
10	Utskrivende lege	
11	Utskrivende sykepleier	
12	Instituerende lege	eResept
13	Innleggende lege	
14	Ansvarlig jordmor	

shared kodeverk for ’role’



NTS: centralized authentication and access control support

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Claim standardization (ii)

- first draft for needed claims
- resolution of claim dependency issues
  - multiple HER-IDs
  - multiple HPR authorizations
- evt. ’disposisjon’ from certain requirements in HISF

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Claim dependencies

HPR nr.
123456789

HER-ID
12345

Virksomhet A

HER-ID
67890

Virksomhet B

HPR authorization 1

- profession 1
- speciality 1i,… speciality 1m

HPR authorization N

- profession N
- speciality Ni,… speciality Nm

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Claim standardization (iii)

- identify and specify claims needed to satisfy HISF
- resolution of claim dependency issues
- representation of claim dependencies
  - XACML: eXtensible Access Control Markup Language

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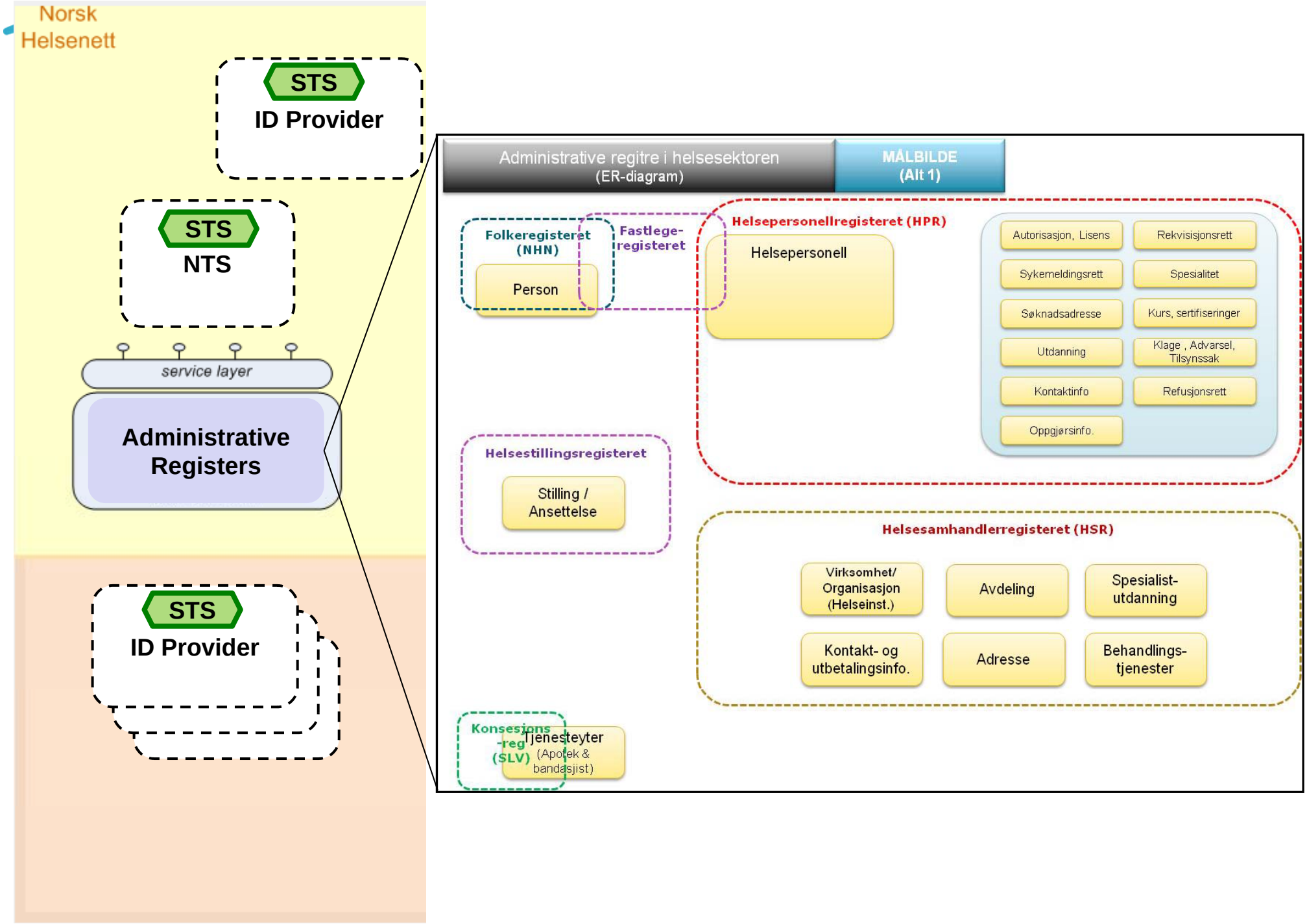
NTS position (i)

- NTS PoC must be understood as a technology validation for claims-based ID management
- NTS could be one of several common components within a national security infrastructure


Norsk Helsenett
STS
ID Provider
STS
NTS
service layer
Administrative Registers
STS
ID Provider
Administrative regitre i helsesektoren
(ER-diagram)
MÅLBILDE
(Alt 1)
Folkeregisteret
(NHN)
Person
Fastlege-
registeret
Helsepersonellregisteret (HPR)
Helsepersonell
Autorisasjon, Lisens
Rekvisisjonsrett
Sykemeldingsrett
Spesialitet
Søknadsadresse
Kurs, sertifiseringer
Utdanning
Klage , Advarsel, Tilsynssak
Kontaktinfo
Refusjonsrett
Oppgjørsinfo.
Helsestillingsregisteret
Stilling / Ansettelse
Helsesamhandlerregisteret (HSR)
Virksomhet/ Organisasjon (Helseinst.)
Avdeling
Spesialist-utdanning
Kontakt- og utbetalingsinfo.
Adresse
Behandlings-tjenester
Konsesjons
-reg
(SLV)
Tjenesteyter
(Apotek & bandasjist)

Mål

Illustrasjon

Sikkerhetsinfrastruktur for innbyggere

Nasjonal sikkerhetsinfrastruktur for helse- og omsorgssektoren

Internett

helsenorge.no

- Mine egenandeler (HDIR)
- Bytte fastlege (HDIR)
- Mine resepter (HDIR)
- Mine vaksiner (FHI)

Samtykke

Reservasjon

Sperring

Fullmakt

Logg

ID-porten

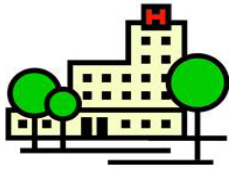
Buypass | BankID | Commfides

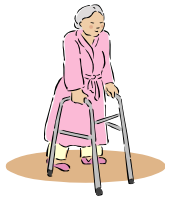
Logg inn

Pålogging
via helsenorge.no

eID for Innbygger

Helsenett

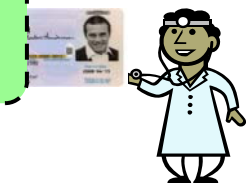




Adm register

STS

NTS



eID for ansatt i helsesektor

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NTS position (ii)

- NTS PoC must be understood as a technology validation for claims-based ID management
- NTS could be one of several common components within a national security infrastructure
- the NTS concept and PoC solution design is being provided as input to NSI pre-study

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Expected impacts

- NSI pre-study
  - expected to conclude summer 2013
  - "personlig kvalifisert sertifikat" (Datatilsynet) vs. "nivå 4" innlogging / autentisering (ID Porten)
    - use of ID Porten for authentication of helsepersonnel
  - privately acquired certificates vs. certificates from employing organization
- HOD
  - Melding til Stortinget (Meld. St. 9): "Én innbygger – én journal"

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