



Use case: Federated Identity for Education (Feide)

Identity collaboration and federation in Norwegian education

Liberty Alliance workshop, Oslo, 2006-10-17

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Overview

- Why work on federated identity in education?
- Feide
 - ◆ Higher education
 - ◆ Schools
- Liberty Alliance contributions to deployments
 - ◆ Service Provider integration
 - ◆ Privacy
- Current identity focused initiatives
- Future plans
 - ◆ Collaboration, research, development, deployment

Norwegian education

- 7 universities, 46 university colleges (210 842 persons)
- Extensive collaboration on electronic services in higher education
 - ◆ BIBSYS and other library services
 - ◆ FS and MSTAS student registry systems
 - ◆ Administrative systems: finance, HR, archive, invoice,
 - ◆ High performance computing, super-computers and grids
- Schools (865 000 persons, pluss parents)
 - ◆ 454 upper secondary schools owned by 19 regions
 - ◆ Around 4500 schools owned by 430 municipalities

ICT trends: Usage in higher education

- All Norwegian universities and colleges are online since 1992
- Currently **all** students in higher education use e-learning
 - ◆ Tracking learning, tracking teaching
 - ◆ Personalization requires stronger central ICT systems
- Half of the students have laptops (growing number), and they grew up with PCs
- Web self service is increasingly deployed
- Traffic grows exponentially

UNINETT and Feide

- UNINETT is the Norwegian research network
- UNINETT is chartered to
 - ◆ Provide advanced network services among the world best
 - ◆ Support open standards and interoperability
 - ◆ Work in collaboration with education and research
- Feide organization
 - ◆ A central service (7 persons)
 - ★ Login service, operated by Oslo University
 - ★ Trust model
 - ★ Information model
 - ★ Project management
 - ◆ Deployment in higher education (3-1 persons)
 - ◆ Deployment for school owners (4-9 persons)

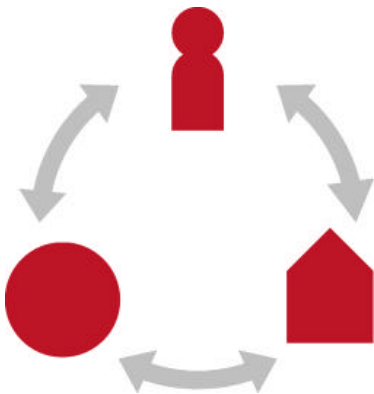
Collaboration

- Strong involvement from universities and colleges
 - ◆ User groups
 - ◆ Active participation in various project(s)
 - ◆ Close collaboration with SAP roll-out
 - ◆ Operational Feide service run by UiO
- Backing from Ministry of Education and Research
 - ◆ Financial support
 - ◆ Clear political support for integrating services
 - ◆ Identity management for schools scheduled for 2008
- Partnership with commercial technology partner (Sun) for open source Liberty-based software
- International participation: TF-EMC2/REFEDS, eduGAIN, GNOMIS, EuroCAMP, Internet2

Identity management for education

- Feide since 2000 (initially higher education)
 - ◆ Operational login service since 2003
 - ◆ Universities and university colleges: 2003 - 2006(7)
- Schools and Feide
 - ◆ Participation decided by Ministry of Education early 2006
 - ◆ Identity management should be available by 2008 for all schools
- Strong campus identity management efforts
 - ◆ Universities and colleges develop and deploy IdM software
 - ◆ Organizational process: identify responsibilities and enforce routines for processing personal information
 - ◆ Supporting the Personal Data Act
- Operational service providers (current: 23)

Why federate?



- Users and home organizations and service providers need to exchange information
- Trust establishment
 - ◆ Feide-name and password
 - ◆ PKI and other credentials supported
- Policy with privacy support
- Technology:
 - ◆ easy service provider integration
 - ◆ Multi-vendor environment
 - ◆ Open standards
 - ◆ Clear integration path

Feide – Federated Electronic Identity for Norwegian Education

- Feide is a non-commercial identity management federation for people in education
- Feide is technology and platform agnostic
- Feide offers guidelines and policy for campus identity management
- Feide-names are valid for all education services, and may be used internally, for community services and with educational related services

Feide login



- User tries to access service
- Service transfer user to Feide login
- Authentication is done at campus
 - ◆ Local authentication point
 - ◆ Local control over information
- Authentication is confirmed with the service, possibly with attribute release
 - ◆ Attribute release controlled by user, governed by contract

Feide federates education



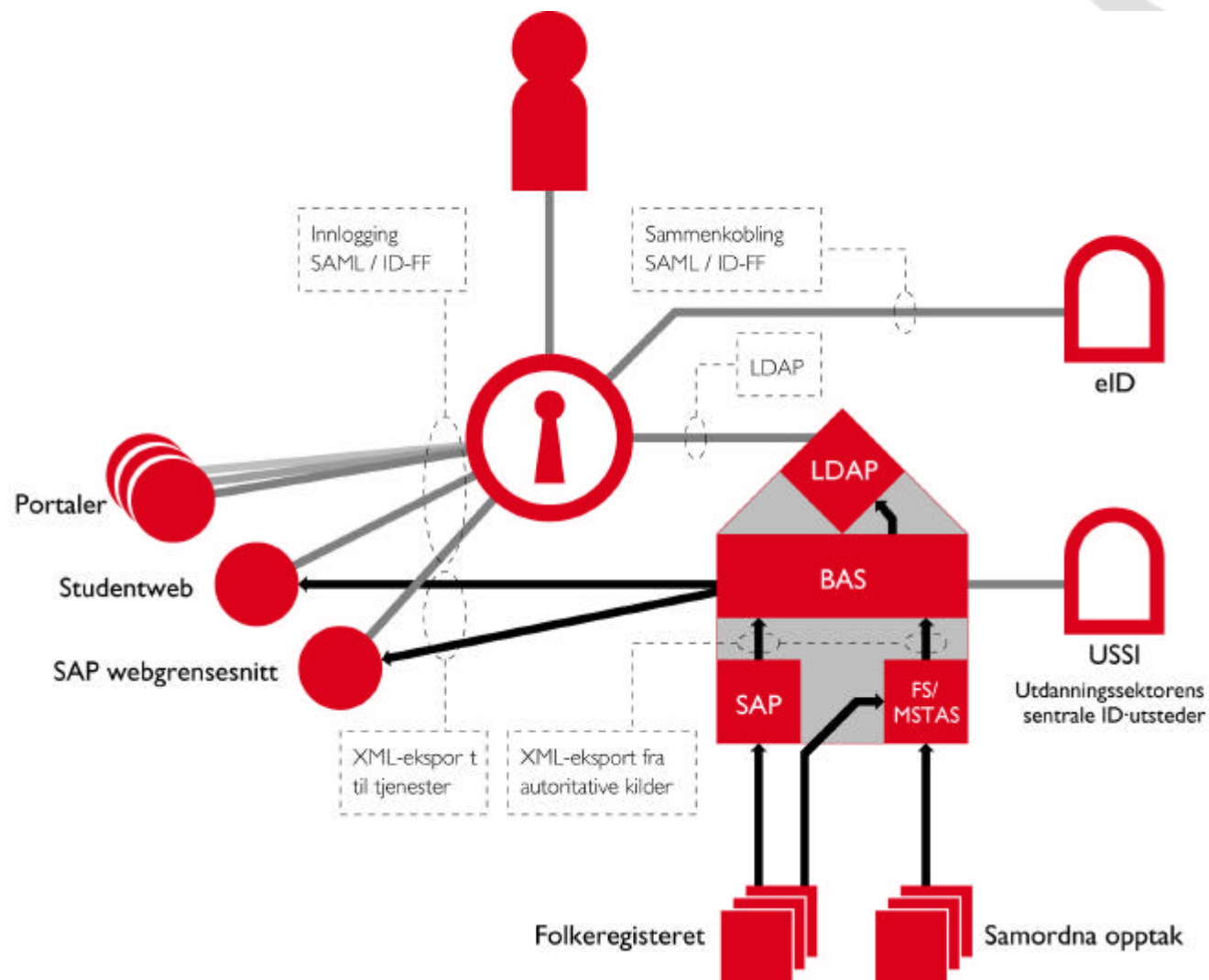
Federations:

- Establish trust
- Authenticate
- Do privacy control
- Enforce information flow policy
- Security

Business drivers for Feide

- End user: one username, one password
- Each educational institution benefits from
 - ◆ Local dataflow clean-up
 - ◆ Overview and control of services
 - ◆ Common guidelines, requirements and best practice for identity management
- University, college or school as Service Provider benefits
 - ◆ Easy integration of non-local users
 - ◆ Data protection contracts and guidelines
- Common shared services benefit from
 - ◆ Integrated user space
 - ◆ Data protection contracts and guidelines

Feide is glue in education



Ongoing work

- Feide operates with
 - ◆ One Identity Provider (central login service)
 - ◆ Many Authentication points (one at each educational institution)
- Attribute release is important
 - ◆ Feide-name valid only in organizational context
 - ◆ What school, affiliation, group, address, NIN, unit?
 - ◆ Provisioning: started PIFU standardization effort
- Cross-federations needed (imply IdP chaining)
 - ◆ National: MyID for public sector
 - ◆ Nordic: Kalmar Union for higher education and research
 - ◆ International: eduGAIN, InCommon?
- Service Oriented Architecture (implies ID-WSF)
 - ◆ Services talk on behalf of user to mediate content delivery

More information

- Information from Feide, including deployment status
 - ◆ <http://www.feide.no/index.en.html>
 - ◆ <http://feide.no>
- Email for Feide:
 - ◆ administrasjon@feide.no
- Questions for Ingrid
 - ◆ ingrid.melve@uninett.no

Collaboration builds education

Campus Identity Provider benefits



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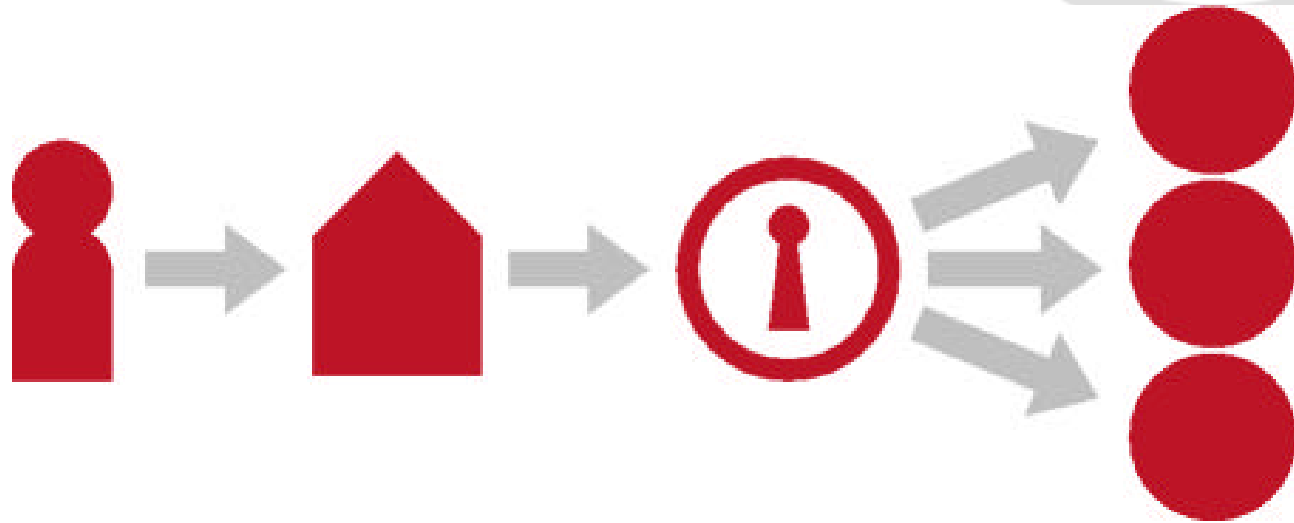
- Authoritative quality for all affiliated users
- Control of information flow for all affiliated users
- Enhanced user management simplifies and automates business processes
- Federated login provides access to services
- One contract with Feide eliminates bi-lateral contracts with all service providers

Service Provider benefits



- Access for all Feide users
- No local administration of user database
- Feide handles login and gives high quality data about users
- One contract with Feide eliminates bi-lateral contracts with all identity providers

User benefits



- One username
- One password (or other credential)
- Do not need to register information at each service, automatic updates from campus information
- Informed consent for personal data transfer
- Familiar log-in page may increase security