



exam

Experiences of cross-institutional digital exams in Finnish Higher Education Institutes

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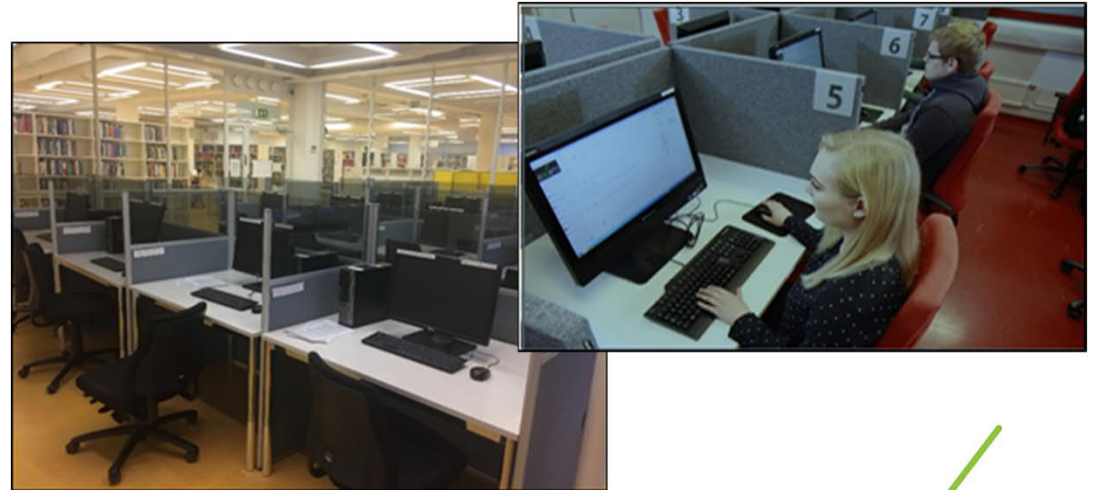


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EXAM concept for online exams

- A concept of an EXAM consortium (27 Finnish universities and universities of applied science) since 2014
- Advancing the flexibility of studies for the students: can freely choose their examination time and date
- EXAM concept consists of the exam software (EXAM), customized workstations and network environment, camera-controlled exam rooms and the process to supervise the students.
- Next more flexibility and efficiency by sharing resources within the already proven concept of EXAM.



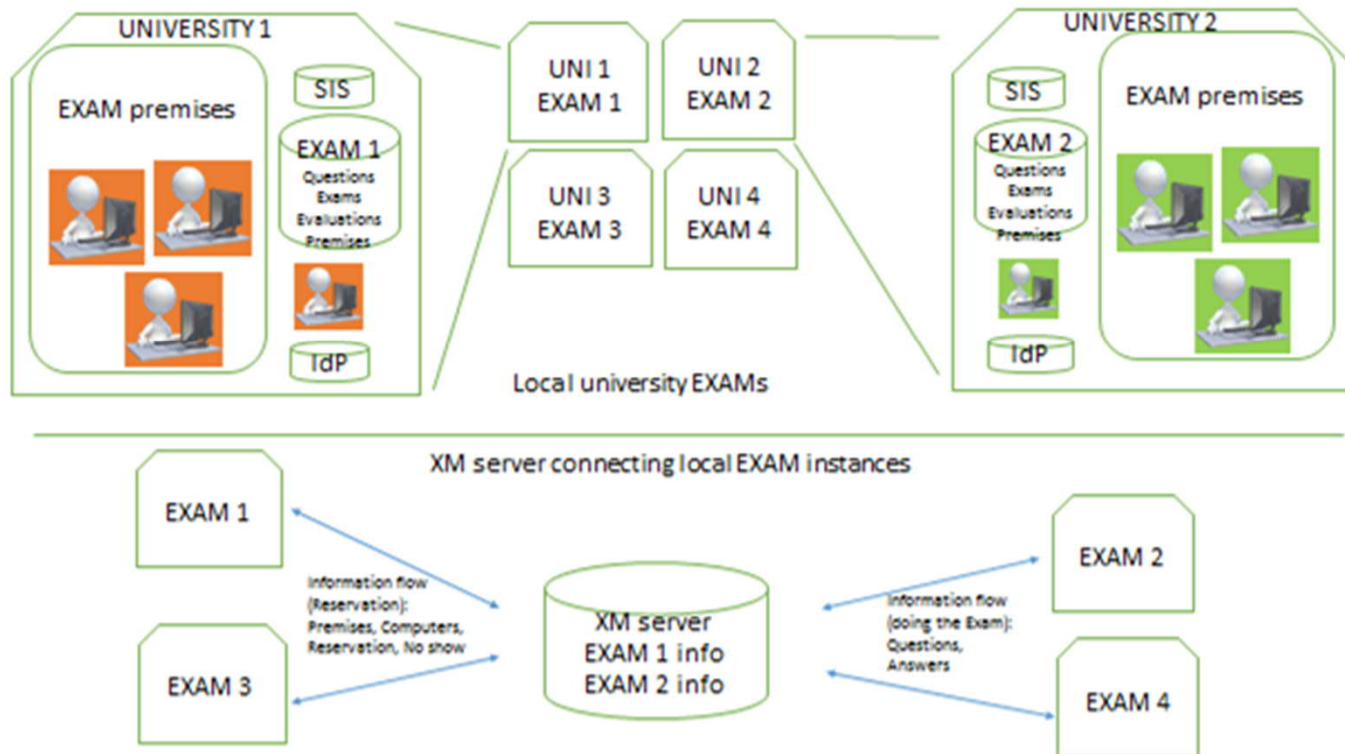
exam

EXAM and shared resources

- Identified sharable resources included exam facilities, exams, questions and evaluations.
- Identified use cases:
 - 1. The joint use of exam rooms: a model where a student can take an exam of the “home institution” using the nearest HEI’s exam facilities.
 - 2. Joint exam and evaluation process between two or more universities: two or more teachers from different universities could create and evaluate a joint exam and students from different universities do it.

Technical implementation

- The implementation relies on a proxy server which means that the information flows go only through the XM server from a local EXAM instance to another one. This way there is no need to build and open access between the local EXAMs.



Technical implementation

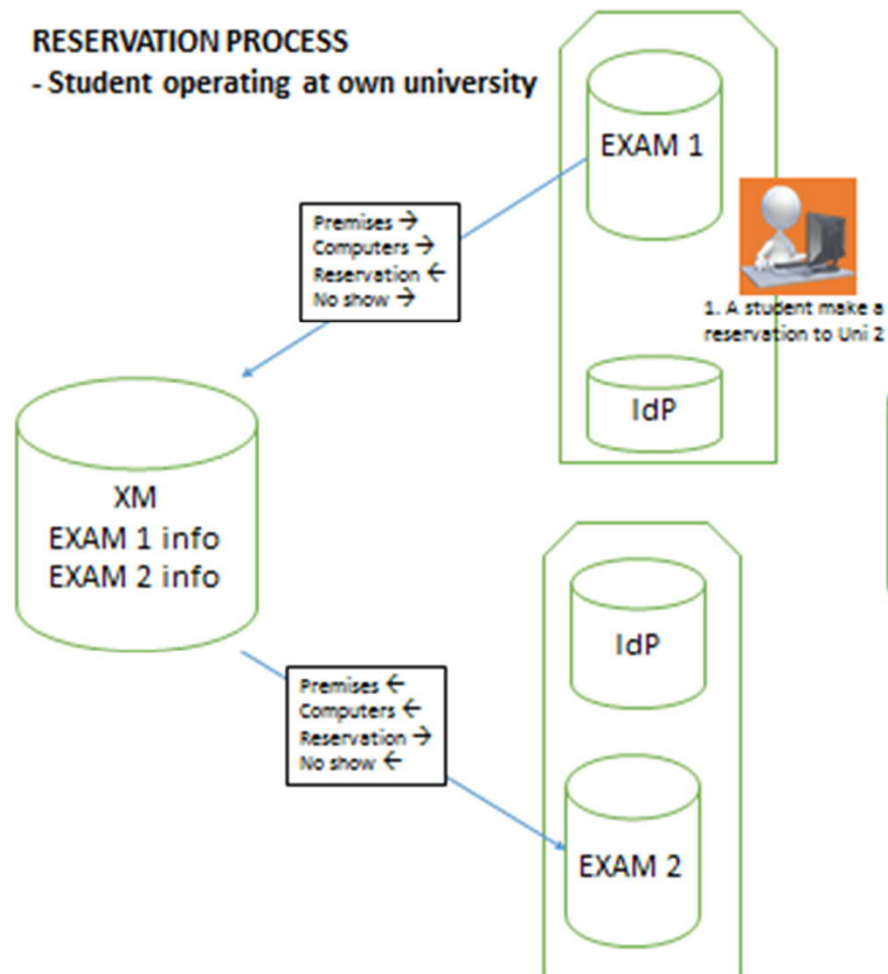
- Haka is the identity federation of the Finnish universities, polytechnics and research institutions.
 - Haka is member in eduGAIN service
 - Users are able to access federation services using a single user account and password.
 - User identities are provided by the users home organizations
- The Exam service uses HAKA authentication
- The cross-institutional use of exam rooms does not require extra integrations.
- The process relies on local Exams and their integrations to SIS

Technical implementation

- Student reserves an exam from room of other HEI using the Exam service of the home HEI
 - HAKA-authentication
 - All Exam services in the network can access the availability information on exam rooms which are allocated to cross-institutional use via XM server
- When student takes the exam in the facilities of other HEI, he/she authenticates with HAKA accessing the Exam service of the home HEI
- For the teacher the evaluation process is the same as usual

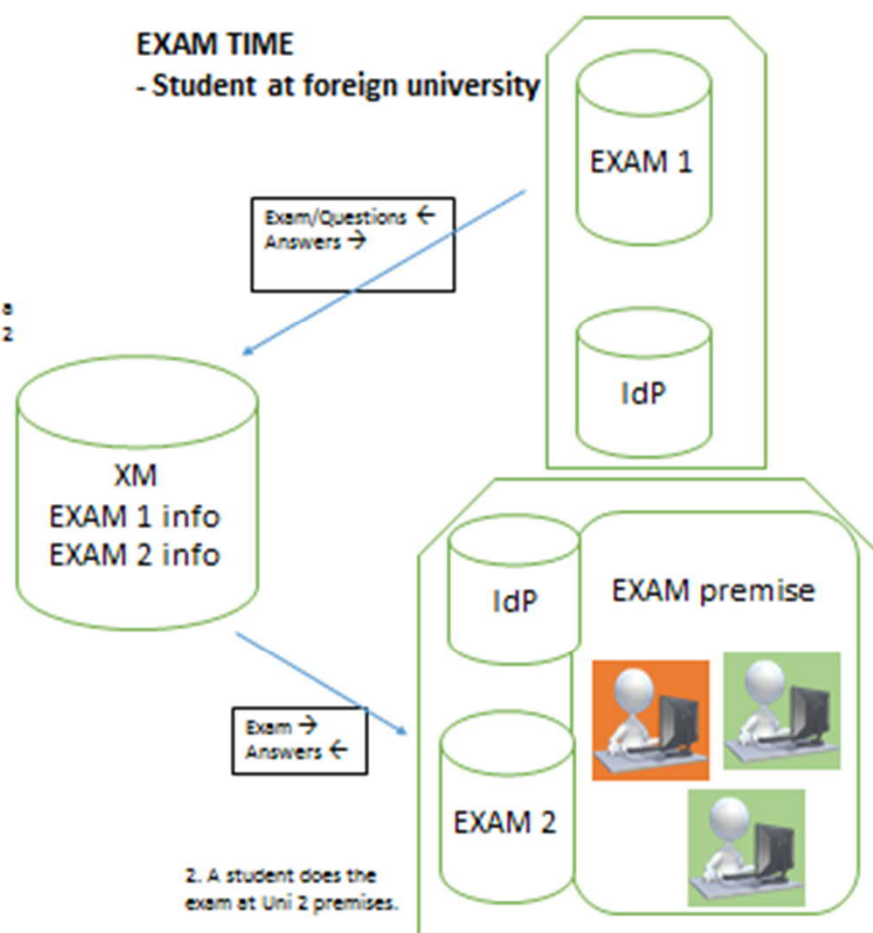
RESERVATION PROCESS

- Student operating at own university



EXAM TIME

- Student at foreign university



Reservation process 1/3 (student)

1. Log in with your credentials



University of Jyväskylä EXAM test requires authentication. Required personal data is transferred automatically to the service after authentication.

Aalto University

- Saimaa University of Applied Sciences
- Satakunta University of Applied Sciences
- Satakunta University of Applied Sciences IDP2 (test)
- Savonia University of Applied Sciences TEST
- Seinäjoki University of Applied Sciences
- SUI Auth
- TEST University of Jyväskylä
- TPAS Test
- TPAS testi
- Turku University of Applied Sciences
- University of Helsinki
- University of Helsinki
- University of Jyväskylä
- University of Lapland
- University of Tampere
- University of Turku
- University of Vaasa
- Valtori Test
- Åbo Akademi University
- Åbo Akademi University

< Booking calendar

1. Exam



Philosophy of education

Course name: KAIS021 Kasvatus- ja tieteenfilosofia Exam period: 02.03.2018 - 31.12.2018 Exam duration: 1 h 50 min

Instructions:

! Reservations can be taken maximum 30 days ahead (24.06.2018)

2. Choose room

[Exam room reservation from external institution >](#)

Accessibility type >

Exam room ▾

3. Reservation

Philosophy of education

Course name: KAIS021 Kasvatus- ja tieteenfilosofia Exam period: 02.03.2018 - 31.12.2018

Exam room: Booking:

Exam duration: 1 h 50 min

Confirm exam time

Cancel



Reservation process 2/3 (student)

2. Choose organization [Exam room reservation from my institution »](#)

Organization ▾

Search

- SAMK (Satakunnan ammattikorkeakoulu)
- LY (Lapin yliopisto)
- JAMK (Jyväskylän ammattikorkeakoulu)
- DEV (DEV-Academy)
- EXAM (EXAM-Academy)
- UEF (University of Eastern Finland)**

3. Choose room

Exam room ▾

Search

- Examstudio Raja - Säädettävä p...**

4. Choose time for your exam

13:30 - 15:2	Available (1)
14:30 - 16:2	Available (1)
15:30 - 17:2	Available (1)
16:30 - 18:2	Available (1)
17:30 - 19:2	Available (1)



Confirm exam time

Cancel

exam

Reservation process 3/3 (admin)

Administration of reservations

Starts  Ends 

Examiner Submission status Student

Exam room Computer Exam

STUDENT ⇅ EXAM ⇅ CODE ⇅ EXAMINERS ⇅ DATE AND TIME ⇅ COMPUTER ⇅ SUBMISSION STATUS ⇅

Liisa Kallio liisa.kallio@jyu.fi	Philosophy of education	KAIS021	Liisa Kallio, Hannele Rajaniemi	29.05.2018 08:30-10:20	Booked
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Remove the booking

Change the computer

liisa.kallio.stu@funet.fi	External reservation	External reservation	External reservation	29.05.2018 10:10-12:00	JY Pääkirjasto - säädettävät sähköpöydät/Main library - adjustable tables Kone 1/Computer 1	External reservation - not used
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Pilot project experiences

- 10 pilot institutions testing in pairs
- Workstation firewall prevent login with another HEI's credentials
 - Solution: All EXAM workstation HTTPS traffic is routed through a proxy residing in the same address as Exam server. There is an access list in the proxy which allows workstations to only access Identity Providers of the collaborating universities (and certificate revocation services).
- Specifications for EXAM facilities and workstations
 - A uniform workstation set-up has been decided
 - Do we need a separate workstation set-up for certain fields e.g. mathematical software
 - Accessibility features outlined
- Agreements
- Detailed instructions and information for the student on a public website of each institution.

Future steps

- Setting up the HAKA authentication proxy
- Final tests in the pilot institutions with students
- Implementation
- Next use case: joint exam and evaluation process between two or more universities



THANK YOU!

For more information: <https://e-exam.fi/in-english/>
twitter: #examfi