Community Interaction platform

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ABC4Trust Final Summit

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Overview

- The Swedish pilot
  - The pilot in brief
  - The use cases
  - The two rounds of the pilot
- Demonstration
- Q&A

Söderhamn Pilot

Norrtullskolan School
Söderhamn, Sweden

- School internal social network for communication among students, teachers, and personnel

- Provide trusted authentication while protecting anonymity

- Usability: make privacy technology understandable for non-technical users (e.g. students)

Objectives of the Pilot

- To demonstrate how ABC technology can successfully provide trusted identification while protecting anonymity and privacy of children in real life applications where this is desirable

- To meet the requirements of the school and local (in this case Swedish) authorities.
  - The Swedish National Agency for Education
  - The Swedish Data Inspection Board

The Swedish pilot scenarios

- School internal community interaction among students, guardians and school personnel

- Main scenarios:
  - Chat communication
  - Political discussions
  - Counseling with health personnel
  - Document sharing and access

Chat Communication

- User(s) wants to chat with another user(s) (individual or group chats authenticated with specific attributes or identified by name)

Political Discussions

- For some people the ability to express a political opinion anonymously is essential to discuss sensitive subjects.

  - Students prove that they belong to the school but can still remain anonymous

20 different nationalities

Counseling

- Get help and advice from school personnel
  - Students will discuss, get help or get advice from authorized professionals regarding psychological, physical and other problems
  - The students prove to belong to the school but can still remain anonymous

- The school is producing many important documents (exam results, grades, individual development plans etc.) that need to be shared with and distributed to the students and their parents.

Necessary features

- The school needed a way to stop usage of already issued credentials in case a student
  - changes class or subject;
  - no longer belongs to the school,
  - …
- The school is responsible for the well being of the students while at the school and using tools provided by the school
  - What if anonymous users misbehave?

Pilot Users and Roles

- Students
- Parents/Guardians
- School personnel
  - Teachers
  - Counselors, welfare officers
  - Administrators
- School Inspection Board
- Inspector (The schoolmaster)

Approach

- Users were identified by smart cards they received from the school administration. The smart cards contained ABC software, credentials and attributes (e.g. name, class, date of birth, gender etc.)

- Students, guardians and school personnel used their smart cards to sign in to the school application (the Restricted Area Application)

Credentials (attributes)

- CredSchool (first name, last name, gender, school name, PUN=Pilot User Number, revocation handler)

- credSubject (subject)

- credClass (class)

- credChild (child)

- credGuardian (guardian)
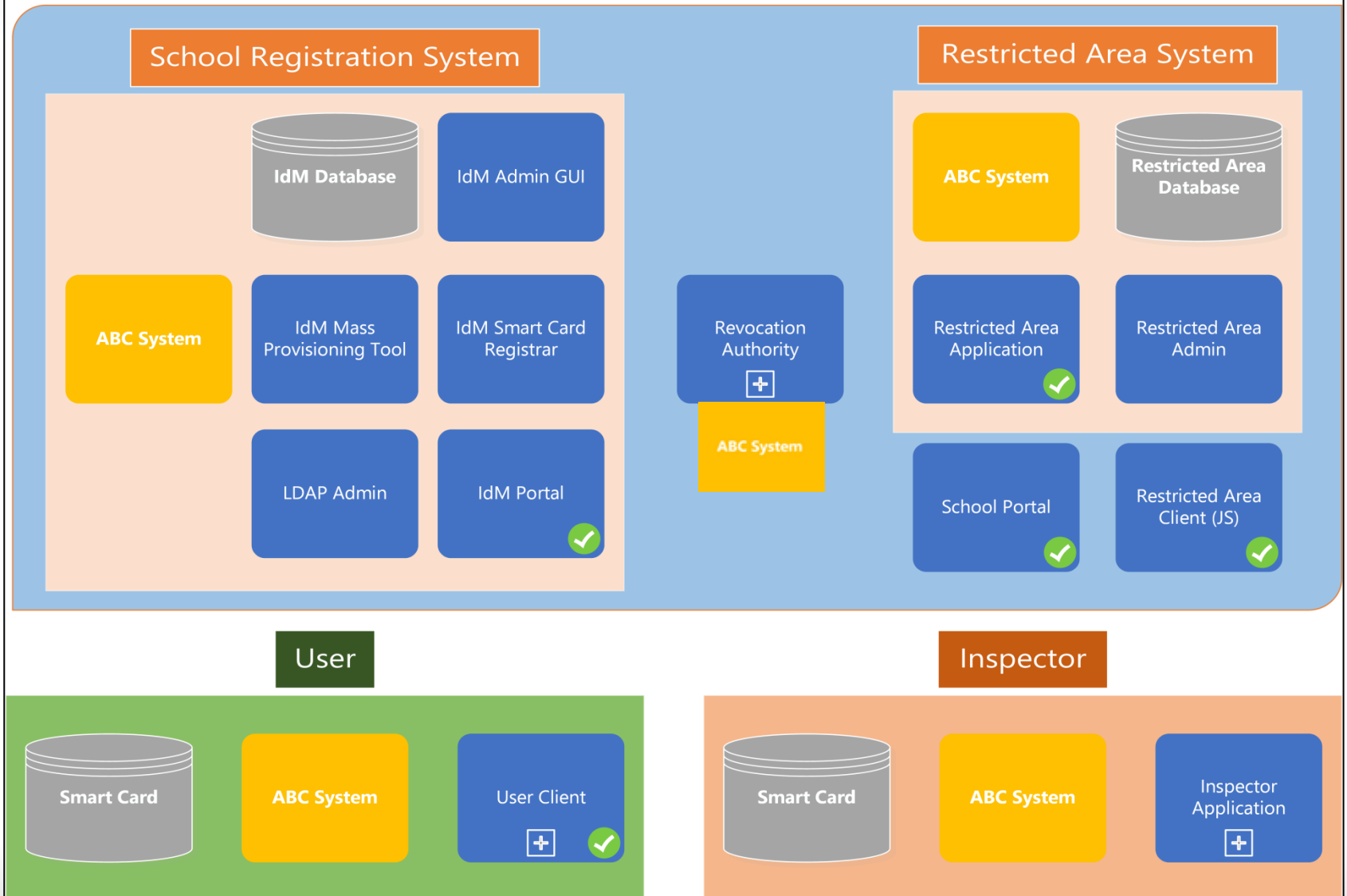
- credRole (role)

Benefits!

- Students are in charge and can choose to …
  - Remain anonymous/pseudonymous
  - Be uniquely Identified
    "Claudia Hugosson"
  - Be partially identified
    "Girl", "Age 9-12" or "A girl, age 10-11"

- This can be done at any time and can be different from time to time.
- Students can choose what attributes they want to prove and to whom.

High Level Architecture

Restricted Area (RA)
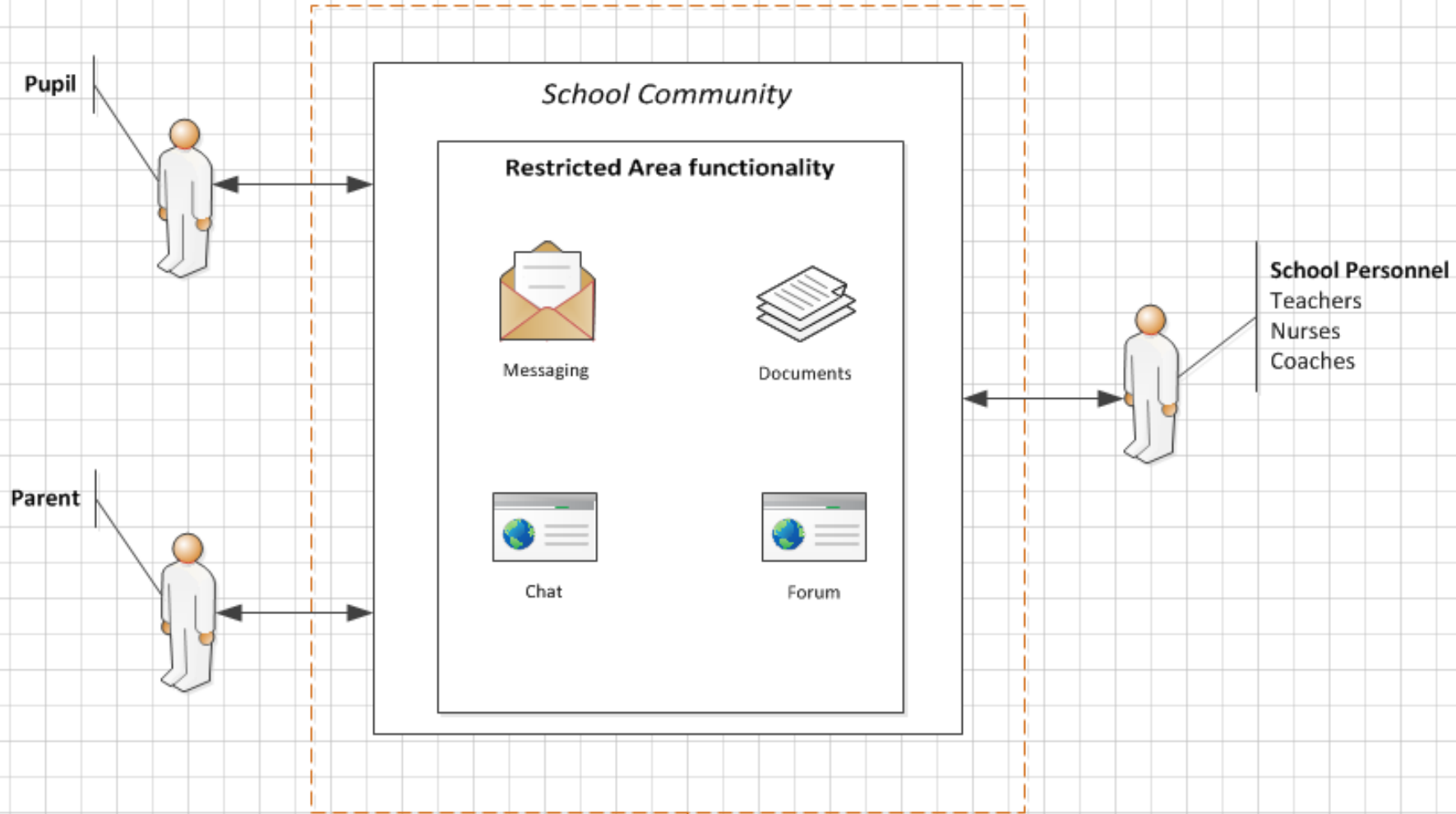
Two Pilot Rounds

- 1st round of the pilot successfully performed May-Jun 2013.

  - 24 participating students were educated in the Privacy ABCs concept

  - 22 performed tasks and 15 completed a questionnaire

- 2nd round successfully performed Oct 2013-Feb 2014

  - 381 participants: students, guardians and teachers

  - Improvements based on the results from Round 1

  - Adaptation of the Revocation and Inspection functionality

  - Altogether 91 persons participated in the questionnaire

Round 2

- 381 participants
  - 53 School personnel
  - 123 Students
  - 203 Parents
  - 2 Admins
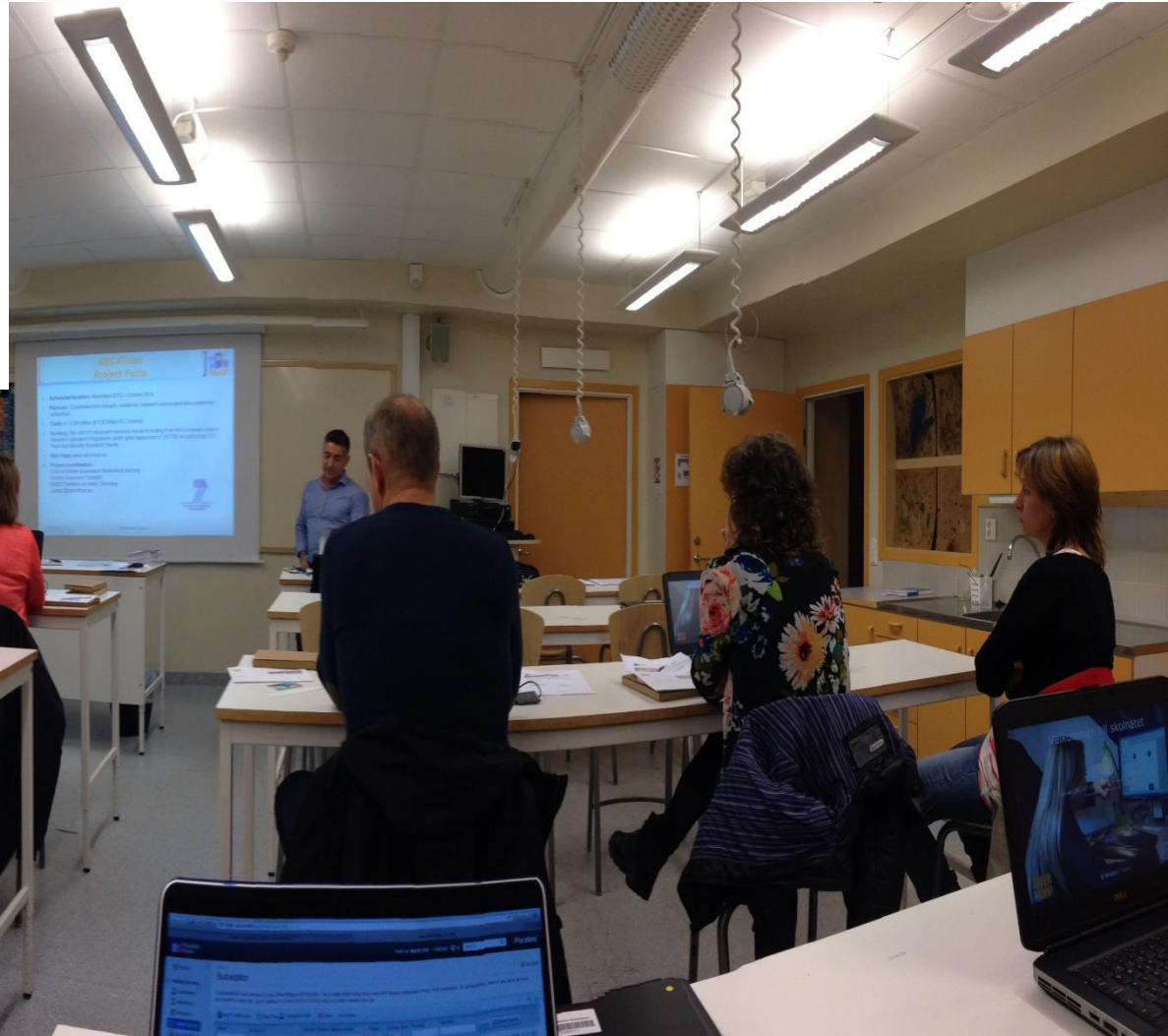
D6.3 Evaluation of the School Pilot

- Contains an evaluation of the legal aspects and impact of using Privacy-ABC

- Provides a comprehensive list of recommendations for further development in using Privacy-ABC

- Summarizes the results of the questionnaire
  - Users were able to utilize the Restricted Area Application
  - Users had a good level of understanding and appreciated the overall concept of the Privacy-ABC technology
  - Users trusted that the systems improved their privacy and would use the system if it were to continue

Demo features

- Help and downloads
  - User Client, User manual and credentials
- The RA system
  - The menu (My dashboard, official RAs)
  - Alias selector
  - Enter an RA, post a message into the chat
  - Open private chat
  - Show "Report content" controls
  - Counselling
- The User Client
  - Manage credentials, revocation check, change PIN etc.

- RA system (select alias, chat, report content, counseling etc.)
- User Client - browser plugin menu

Questions?

Thank You

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