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The use of electronic signatures in higher education

eSign ForStudy

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European Campus Card Association

eSign ForStudy

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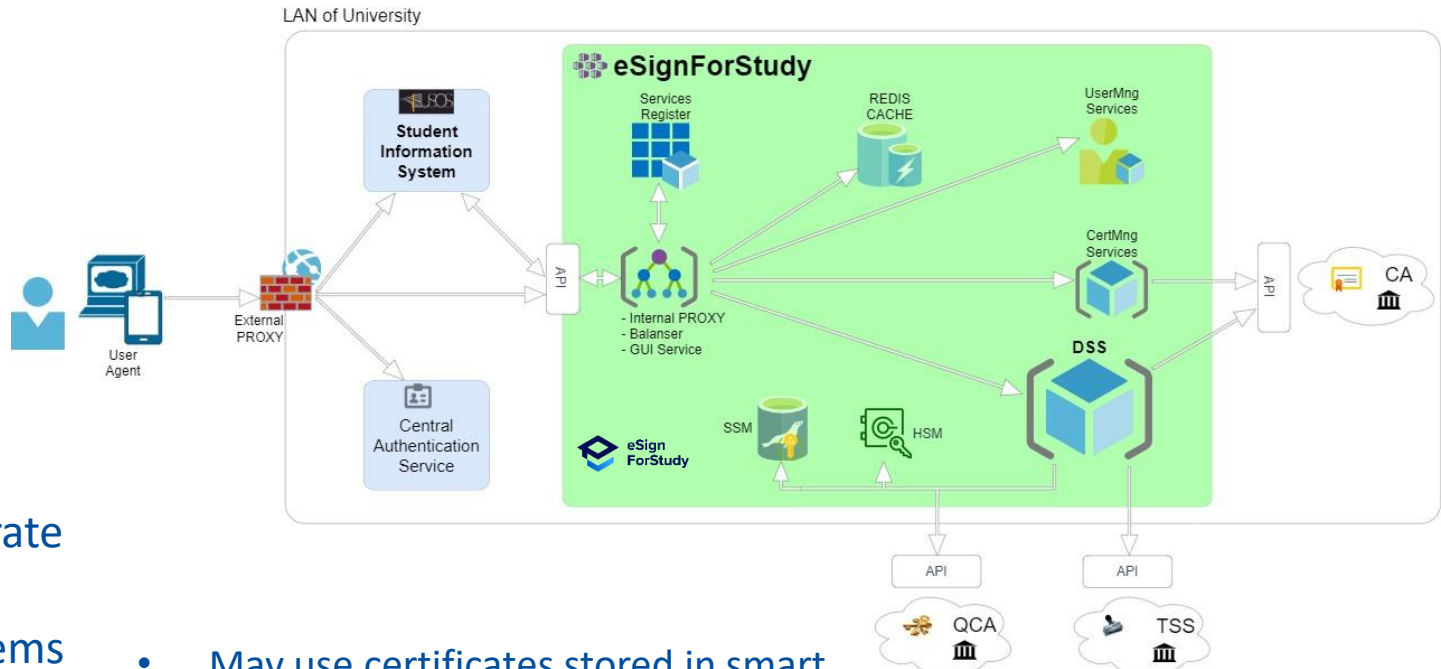
The goal of *esign4study Project* is to design and develop a system for Higher Education Institutions that will enable the use of electronic signatures and electronic seals in line with eIDAS Regulation and standards (signature/seal creation and/or validation). Initially it will focus on enhancing document handling in Polish HEIs and on secure cross-border exchanges, but eventually it will made available for use in small medium-sized enterprises.

Specifically, this highly configurable esignature solution will be deployed in Polish Higher Education sector and validated in the cross-border exchange of documents using a European-wide platform for the secure transfer of student data between HEIs (Erasmus Without Paper platform and EMREX Network).

The eSign4Study will be based on the eSignature DSI Building Block's DSS open-source library (incorporating the library's code). It will resemble a black box concept, with optional/interchangeable components and open interfaces to enable interoperability. It will support an easy way of handling and interacting with the components of a PKI, considering systems with certificates stored in local secure repositories (HSM), its software equivalent, or encrypted databases. If qualified signatures are required and cannot be downloaded to the local infrastructure, they can be stored in a remote cloud managed by the Qualified Certified Authority. It will allow for using trusted timestamp services delivered by certified providers.

For testing and validation, the University of Warsaw and Czech Technical University will integrate the eSignForStudy with their Student Information Systems, connected to the Erasmus Without Paper (EWP) platform and EMREX Network. Both platforms allow for secure transfer of student data. The new tool will allow the signing and validation of documents, thus providing a missing key security component.

The integrated solution will be deployed in over 70 HEIs in Poland using the same SIS.



- Black box
- Easy to integrate (via API) with external systems
- Simplified interface

- May use certificates stored in smart cards, HSM, cloud, local database
- Local and external CA accepted
- LTV support

Use cases

- University (seal)
- University representatives
- Students
- Candidates

IT systems operating in the University

- SMS/SIS
- DMS
- Workflow Management systems
- EWP, Emrex
- other like Low Code Platforms

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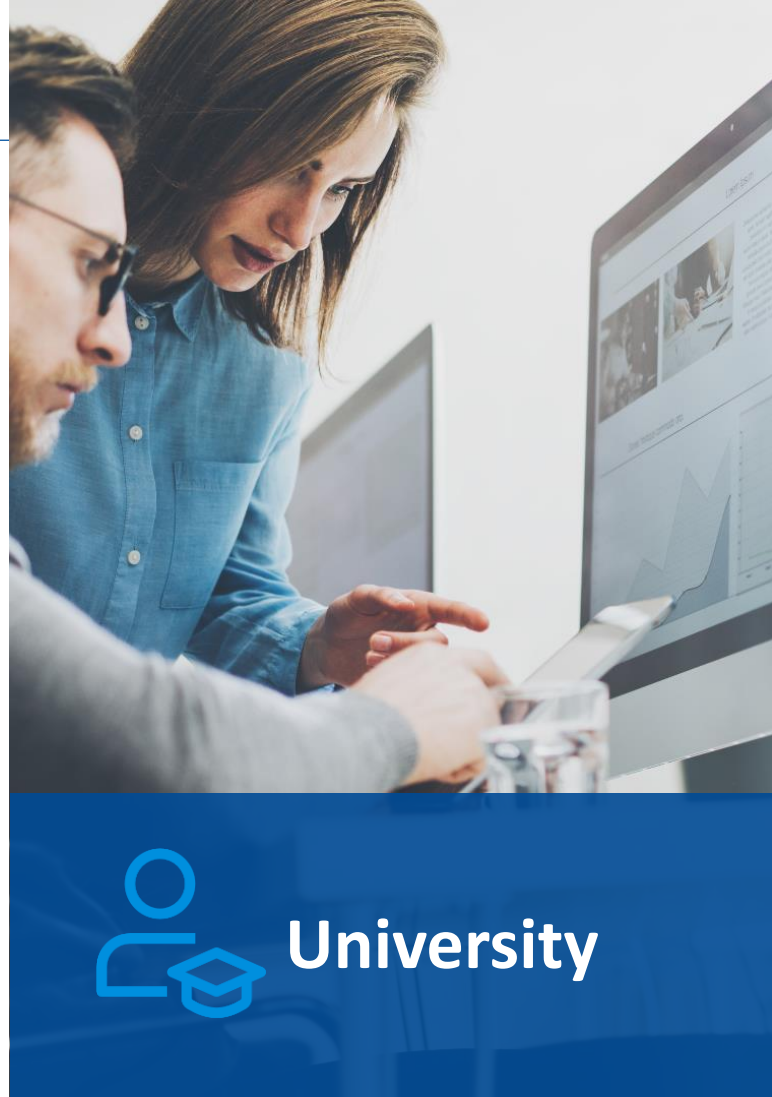
- University is responsible for student authentication, through its own procedures and policies (login + password + OTP + FIDO tokens) and for other HEIs, in consequence

- University is responsible for integrity of student documentation and authenticity of origin (with a use of electronic seal)



University representatives

- All the official DECISIONS are signed by University representatives

- Qualified certificates, governament „trusted profile” and electronic citizen id are allowed

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- Everywhere and everytime when student acceptance is Required, concerning crucial issues especially related to finances

- Qualified certificates, governament „trusted profile” and electronic citizen id are allowed

Students

Candidates

- Education agreement

Examples of processes

PROCESS	SIGNATURE
Student recruitment / acceptance decission	Qualified signature
Awarding a scholarship	Qualified signature
Student ID	Dedicated qualified signature
Student tax declaration	Qualified signature
Official student status confirmation (banks, social security, …)	All (qs, tp, us, id)
Transcript of Records - TOR (EWP/Emrex)	Qualified signature Qualified seal
Inter-Institutional Agreement – IIA (EWP)	Qualified signature on demand
Diploma and Supplement	Qualified signature optionally after student authorisation via trusted profile, citizen id or qualified signature possibly

Thank you

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