

e-Sign Platform

Overview

Electronic signatures are often used to avoid having a physical document distributed by different people (or entities) involved in the signing process, and of course, it improves the trust level of the document. However, a problem still exists in signatures that involve several partners: each person needs to countersign after the previous signature, and the document needs to circulate through every signee in the designated order. Usually a person is responsible for ensuring that the document is shared by all entities (e.g. partners in a project), sequentially, via email.

The project entails developing a platform – e-Sign - that allows centralized (cloud based) multi-party document signing, to suppress the distribution of documents via email.

Detailed Description

In detail, a document (e.g. PDF) is sent to a central cloud-based document holder, where everyone involved in the process (or project) will sign the document, until everyone has officially (agreed upon and) signed the document.

The platform will use the (Portuguese) Electronic ID (e-ID) card to sign (using cryptographic standards, i.e. PKCS#11) documents, collect statistics of the entire process and produce metrics on the signing times, as well as serve as an archive repository for the signed documents. This project should implement the european standards for signatures, such as XML Advanced Electronic Signatures (XAdES), and PADES (PDF Advanced Electronic Signatures) for native pdf files signatures.

Goals and Timeline

The project aims to achieve the following goals:

- Allow the submission of documents to be signed;
- Invite people to access the platform, and sign the document;
- Alert when documents are signed by everyone, completing the signing process;
- Allow signing with a portuguese e-ID card, without installing additional software;
- Enable different kind of signatures providing different levels of trust: qualified signatures (digital certificates), or simplified signatures (assign an email as confirmation signature);
- Supporting european e-ID cards, through Pan-European e-ID projects (Stork II / eSens)

Roadmap

Phase1: Project Definition, requirements and design – (2 weeks)

Analyse state of the art; Requirement analysis, Design system architecture

Phase2: Development (2 months)

Developing “e-Sign” system

Phase3: Testing & Fixes (1 week)

Install the system in test environment, and make it available in alpha phase.

Phase4: Close (1 week)

Implementation report; Source code delivery; Future work.

About Caixa Mágica Software (CMS)

Caixa Mágica Software is a portuguese leader company in open source technology, developing, using and disseminating Open Source Software as well as Open Standards; CMS is also the company behind the most important portuguese Linux Distribution – Linux Caixa Mágica. Research & Development (R&D) projects play an important role in the company, where CMS is involved in several R&D projects, such as STORK 2 and eSens in the scope of e-ID, and other FP7 projects in computer networks and digital storage.

CMS developed the open source middleware for the national e-ID project (Cartão de Cidadão), and is still developing new features and solutions related with digital signatures. The team involved project has a large know-how in areas such as digital identity, security, digital signatures, authentication, and PKI.

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