

SecureWitness: An Information System to Support Human Rights Data Collection

Version 1: 10/13/2015, 11pm

Human rights and social justice groups gather and collect information to document situations that concern them. They require technology to store and share this information securely, without risking it falling into the wrong hands on their own computer or servers, and without it being lost due to other reasons (theft, viruses, etc).

SecureWitness (version 1) will allow users creating such information ("*reporters*") to submit a report. A report will be made up of some standard information fields and optionally one or more files. The information and files will be uploaded using a web application where they will be stored securely on a server.

A reporter can indicate that a report is private. This means that permission to view all information stored in a private report can be granted by the reporter to particular users or to a group of users, and the report will not be visible to others.

A report can be moved into (and out of) a folder created by its reporter, and the creator can rename, update and delete reports, along with renaming and deleting folders.

Independently of its public/private status, files attached to a report can optionally be marked as encrypted when they are uploaded to the server. The file must be encrypted before it is uploaded to the web application.

A stand-alone program (i.e. one that runs on a user's local machine) must be created to download and decrypt files in a report that are encrypted. This stand-alone program must communicate with the web-application in order to: list reports that are visible to that user; allow the user to choose a report, and then download a file in that report and decrypt it.

A reporter can leave a private message for a specific user. A user will have the ability to see a list of messages left for him or her, and be able to delete a message. Private messages will be encrypted, and the recipient can choose to decrypt it and then read it.

Any person can create an account that allows them to become a reporter by registering with the system. Each system will have at least one user with the role of *site-manager*. Site-managers can give other users site-manager privilege. They can suspend and un-suspend a user's account. They can also see private reports.

Note for CS3240 students:

The description above describes the core features of SecureWitness. You will be required to implement some additional features that you can choose. Some ideas will be given here after we have a round of questions and responses.

(Inspiration for this project: <https://www.martus.org/concept/>)