



ReinFORCE SOCIAL Entrepreneurial Spirit through setting up Innovative Support

SOCIAL FORCES

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FACULTY OF ECONOMICS AND SOCIAL SCIENCES
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SOFTWARE TECHNICAL SPECIFICATION TEMPLATE

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INTRODUCTION

PURPOSE

The purpose of this Technical Specification is to provide a detailed list of features and description of functionality required to complete Social Forces goals of *D.4.8.3: Develop the web platform and all modules and transformation of the educational material for the platform.*

INTENDED AUDIENCE AND PERTINENT SECTIONS

This document is intended for software developers, project managers and Social Forces project partners involved in D4.8.3. This document is not an end-user documentation.

SCOPE OF THE WEB PLATFORM

Web platform intends to ease access to information and materials gathered during the project, as well as information on businesses and products analyzed in respective work packages.

REFERENCES

All external references are cited in IEEE style.

DESCRIPTION

PRODUCT PERSPECTIVE

The web platform aims to provide access to project resources, findings, research items and partner activities.

FEATURES

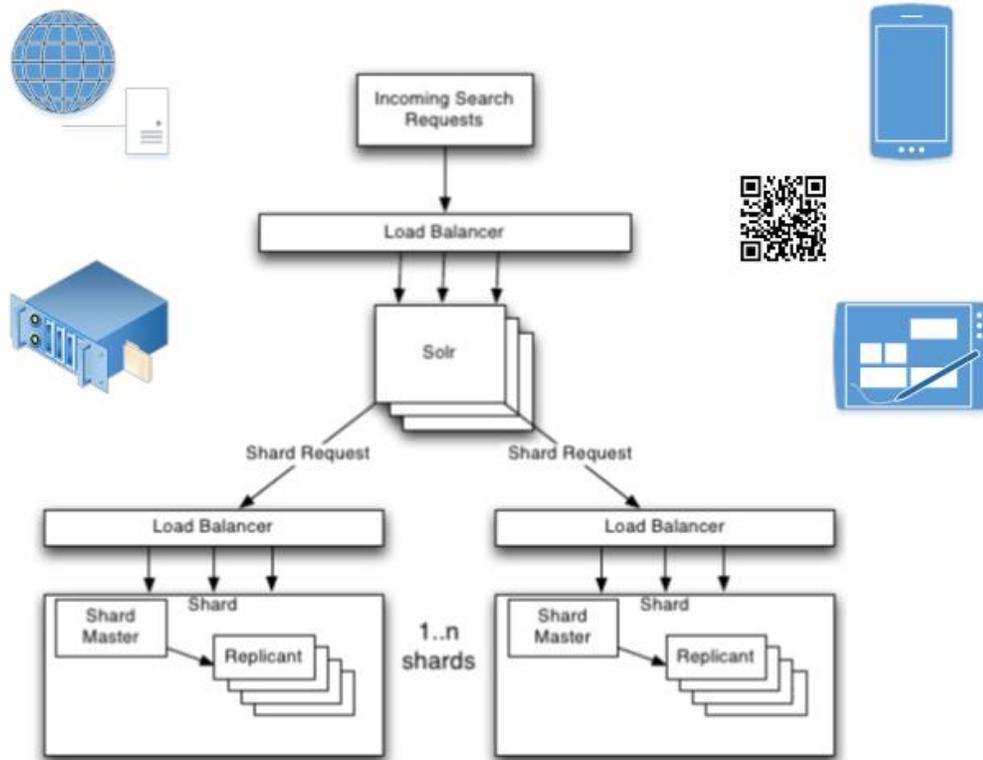
At the core of the web platform is the need to provide on-time and concrete information concerning Social Forces project and the results of respective work packages. While there are multiple solutions available for managing web resources, they have significant drawbacks in terms of searching the right information and providing quick access for people and businesses not involved directly in the project.

USER OVERVIEW

The platform shall be used by the following groups: project partners and team members, which are interested in both accessing existing data, as well as adding new resources;

OPERATING ENVIRONMENT

The platform will function in the following environments: web/cloud platform that is accessible over the internet; mobile devices (as a mobile application that is able to give quick and convenient access to project resources); analytics and document repository that is able to provide real-time access to information gathered as part of the project.



SYSTEM FEATURES

WEB ACCESS TO PROJECT RESOURCES

DESCRIPTION AND PRIORITY	Provide detailed information on project goals, deliverables and results in a way that allows to disseminate project results and increase its impact.
STIMULUS / RESPONSE SEQUENCES	Inputs for this feature consist of files, research results and documents provided by project team members and managing authorities. Outputs consist of web representation of these documents with ability to search and index their content.
FUNCTIONAL REQUIREMENTS	Provide for document upload, delete, change, rename and move. Provide for indexing document contents. Provide for searching document contents. Provide for upload, delete, change, rename and move of information related to all entities participating in the respective work packages.

QUICK ACCESS WITH QR CODES

DESCRIPTION AND PRIORITY	Provide quick access to resources using QR codes and dedicated mobile application.
STIMULUS / RESPONSE SEQUENCES	The inputs of these feature are QR codes that can be installed at different points of interest and provide a quick access to project resources (including also access to relevant resources in the same context). The difference between standard QR codes redirecting to URL this feature should also be able to provide user with access to similar resources and results within the scope of the project.
FUNCTIONAL REQUIREMENTS	Provide mobile application that is able to access project resources and present them in a convenient and easy to use way, while at the same time promoting project goals success. Implement an interface that allows to track down the use of QR codes, add new resources and new points of interest.

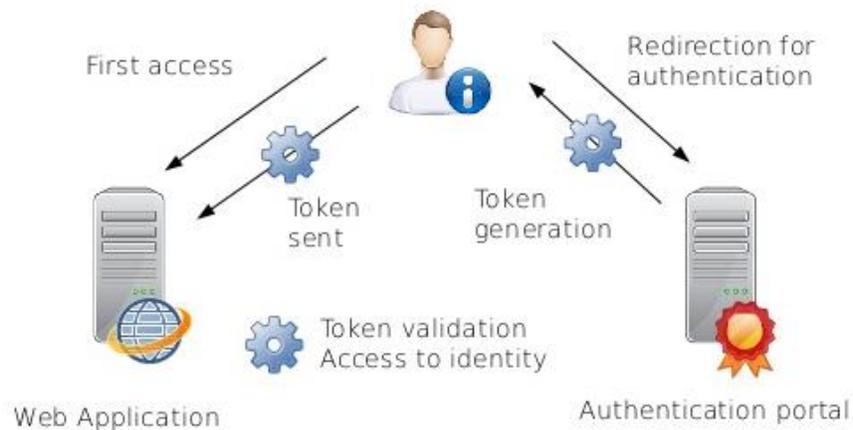
REQUIREMENTS OF EXTERNAL INTERFACE

USER INTERFACES

The platform should be accessible over the following interfaces: web (browser) interface; mobile applications (covering major mobile operating systems); REST interface, allowing for automated access. The following interfaces should be supported:

- Web interface over a standard browser;
- Mobile device interface (using browser and/or mobile version);
- Data interface for REST queries providing raw data of interest to the users;
- Authentication and registration interface to provide different levels of access.

Authentication service



HARDWARE INTERFACES

The platform shall be built on top of existing server solutions, using as a reference a standard x86/x64 computer system with Linux and standard TCP/IP protocol stack.

SOFTWARE INTERFACES

The platform relies on standard Web server (Apache, Nginx) with PHP and Java backed required to run indexing and search services. The platform shall rely exclusively on components with open source in order to avoid licensing costs. Solr shall be used for indexing and Zeppelin shall be used for data visualization. The following software components shall be included in the web platform:

- Database engine for persistent storage of data;
- Web server for handling external requests;
- Search and indexing engine for providing context sensitive search;
- Core analytics interface for providing analytics information whenever suitable.

COMMUNICATION INTERFACES

The platform shall support the following means of communication: browser access, email notifications and email list support. Web forms and ability to upload/store large documents. File access protocols and WebDAV access shall be available for file manipulation. State-of-the-art encryption and security shall be implemented to allow network traffic encryption (HTTPS/TLS support) and secure login.

