D1.1 –Internal Website and Collaborative Tool

Security Assurance Framework for Networked Vehicular Technology

Project abstract

SAFERtec proposes a flexible and efficient assurance framework for security and trustworthiness of Connected Vehicles and Vehicle-to-X (V2X) communications aiming at improving the cyber-physical security ecosystem of "connected vehicles" in Europe. The project will deliver innovative techniques, development methods and testing models for efficient assurance of security, safety and data privacy of ICT related Connected Vehicle and V2X systems, with increased connectivity of automotive ICT systems, consumer electronics technologies and telematics applications, services and integration with 3rd party components and applications. The cornerstone of SAFERtec is to make assurance of security, safety and privacy aspects for Connected Vehicles, measurable, visible and controllable by stakeholders and thus enhancing confidence and trust in Connected Vehicles.

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Document/Revision history

Version	Date	Partner	Description
V0.1	20/02/2017	ICCS	First deliverable draft
V0.2	24/02/2017	ICCS	Content added in all sections
V0.3	02/03/2017	ICCS	SAFERtec template used and corrections made
V0.4	06-07/03/2017	TomTom, UPRC	Internally reviewed by SAFERtec partners
V1.0	08/03/2017	ICCS	Final version submitted

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Acronyms and abbreviations

Abbreviation	Description
DMSF	Document Management System Features
ICCS	Institute for Communication and Computer Systems
WP	Work Package

Table 1: List of Abbreviations

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Executive Summary

This deliverable describes the Internal Collaborative Tool (based on the Redmine web application) that has been set-up from the very beginning of the project in order to enable the dynamic and efficient cooperation among SAFERtec partners. The tool allows authorised users to store and process shared documents, as well as to create specific working areas that all users can access. Additionally, specific functionality that facilitates monitoring of project requirements and how these requirements are satisfied during the project life has been developed.

Currently there are 30 authorised SAFERtec users and several working areas have been set up in order to support the different types of project activities.

The Internal Collaborative Tool will be active during the entire project duration and beyond, supporting the partners' cooperation and therefore enabling the smooth project execution from both coordination and technical point of view.

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1 Introduction

The present Deliverable 1.1 entitled "Internal Website and Collaborative Tool", details the web-based platform that the SAFERtec Consortium has established to support the cooperation and information exchange between partners.

To efficiently facilitate the coordination of project activities and the prompt management of the technical work in the various WPs of the project, an online management tool is deemed necessary. Therefore, at the beginning of the project an internal collaboration platform has been set-up. Among others, it supports storing and sharing documents in a structured way, assigning tasks among partners, collaboratively working on shared documents and scheduling meetings.

The functionality of this internal collaborative tool is described in the following sections, including snapshots of the tool's contents at the moment of writing. The uploaded content is currently limited due to the early stage of the project but it will be continuously updated and enhanced as work progresses (and additional functionalities may be added, if needed).

1.1 Purpose of the Document

The document seeks to detail the set-up and use of the online tool that will be used by the SAFERtec consortium to facilitate the efficient collaboration and information exchange between partners.

1.2 Intended readership

Besides the project reviewers, this deliverable is addressed to any interested reader (i.e., PU dissemination level)

1.3 Input from other projects

No input from other projects was considered during the compilation of this deliverable.

1.4 Relationship with other SAFERTEC deliverables

There is no direct relationship with other SAFERtec deliverables. However, the tool and the functionality described in this deliverable will be used to edit/process/compile the rest of the SAFERtec deliverables.

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2 Tool url and infrastructure

ICCS is hosting a Redmine installation under: https://redmine.iccs.gr/. Redmine [1] is a free and open source, web-based project management and bug-tracking tool. It is designed to include a calendar and Gantt charts to support the visual representation of projects/tasks and their planned deadlines. Redmine provides integrated project management features, issue tracking, and support for various version control systems. The design of Redmine is significantly influenced by Trac [2], a software package with some similar features. Redmine is written using the Ruby on Rails [3] framework, offering cross-platform and cross-database functionality. It is part of the Bitnami [4] app library that provides an installer and virtual machine for ease of deployment. Redmine is released under the terms of the GNU [4] General Public License v2 (GPL).

The server is located in the ICCS premises in Athens, Greece in a secured rack placed in the ICCS's servers' room. The server databases are backed up on a daily basis, while its files are backed up every second day. The server is built with multiple redundancies, network- and disk- wise, in order to ensure its constant operation and network access.

The web access to https://redmine.iccs.gr/ is secured using a digital certificate from TERENA (https://www.terena.org). Within this framework, the SAFERtec Internal Website and Collaborative Tool can be accessed at the following web address https://redmine.iccs.gr/projects/safertec

3 Tools description and features

The following functionalities are offered to the SAFERtec users by Redmine:

- Flexible, role-based access control
- Flexible issue tracking system
- Gantt chart and calendar
- News, documents and file management
- Feeds and email notifications
- Project wiki
- Members' address book
- Searching of project's files and wiki

The aforementioned features are described in more detail in the following sections.

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3.1 Login

The 'Sign-in' page is used to login into SAFERtec project (see Figure 1). Only members who have been authorized by the administrator have credentials to access the SAFERtec Internal Collaborative Tool. The administrator (ICCS) uses email addresses to fill in the necessary information and create the login credentials for each member.

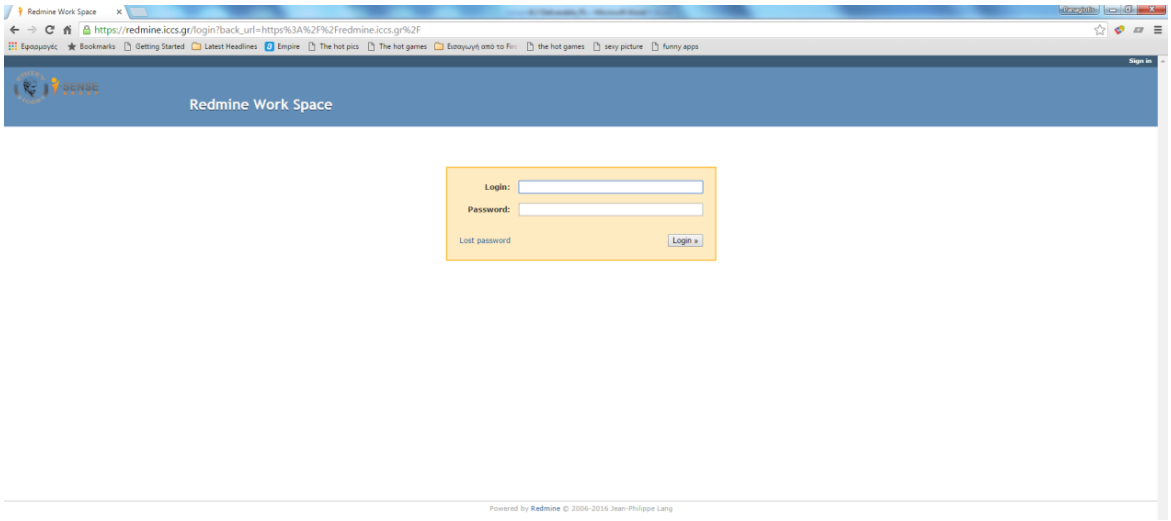

Figure 1: Redmine Login Screen

During his/her first login, each member is requested to change his/her password by clicking on the "My account" tab and then by selecting "Change password". After this is done, the system automatically sends the login credentials to each member.

At the moment of writing, there are 30 authorised SAFERtec members, who have been granted full access rights to the platform.

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3.2 Overview and activities tab

After a successful login, the user enters the SAFERtec project area. The initial screen is the Project overview (Figure 2). In the Overview area there is a high level description of the project. In the Members area, one can see the list of certified SAFERtec members as well as the members who serve as administrators.

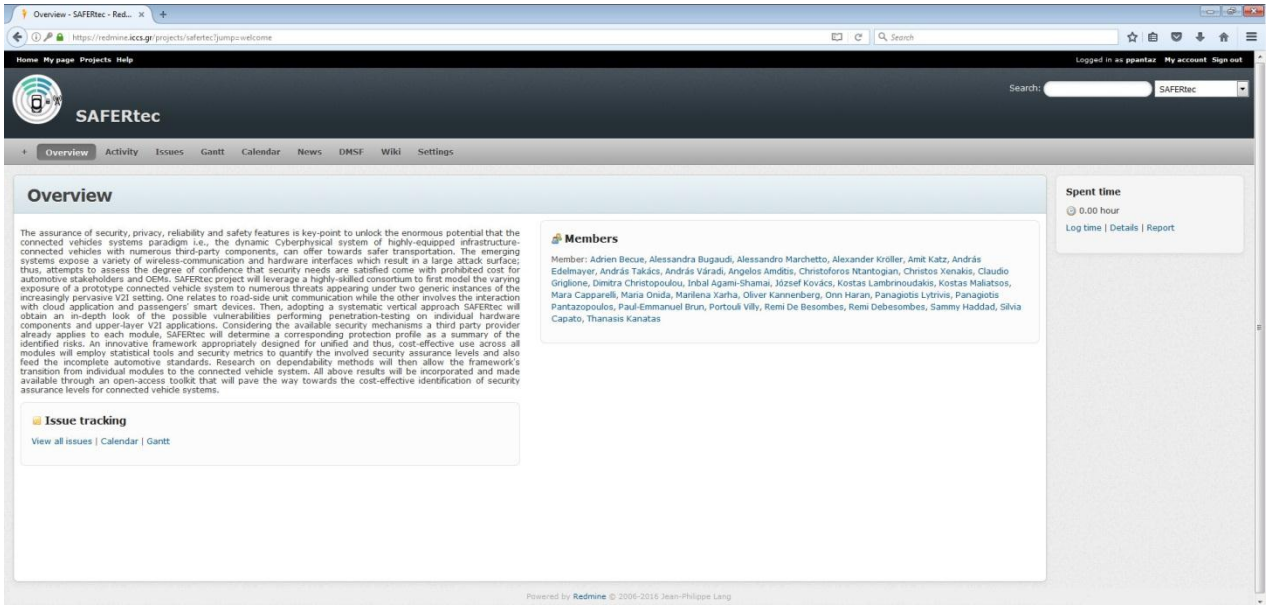

Figure 2: SAFERtec Redmine overview screen

By clicking on the Activity tab, the users are getting informed on the latest news of the SAFERtec project.

3.3 Issues tab

The Issues tab functionality supports the organisation of project issues in categories (for instance issues that correspond to different WPs). The administrator can setup the various categories as

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needed and to auto-assign new issues to a specific user, based on the chosen category of the newly created issues. The following properties are configurable for each of the issue categories:

- Name: The text to be displayed to identify the issue category. This field is required.
- Assigned to: The project member to who newly created issues, in this category, will be assigned. This field is optional.

Within SAFERtec this functionality will be used to monitor WP1 requirements and how these are satisfied during the project life. To this end, a number of trackers will be created according to the project needs and they may include the following trackers: use-cases, use-case requirements, desired features or possible bugs. Specific fields/attributes will be created for each category of trackers. For example, for the requirements trackers, the fields can be: relevance (low, medium, high) and importance (must, should, could, won't). For each tracker, a number of statuses are relevant: new, open, closed, refused. This approach provides a highly dynamic mean of collaboration, as regards the technical work spanning across several SAFERtec WPs.

3.4 Gantt and calendar tab

The Internal Collaborative Tool in order to better support the project management includes work monitoring tools such as GANTT charts, and calendar. They can provide an overview of the project status in monthly views. This view displays all the issues that have at least a start date and can also indicate their due date (if available). This functionality will be used when the actual technical work will start and the corresponding (development) issues become relevant.

3.5 Document Management System (DMSF) tab

The Document Management System functions as an online file repository, in which partners are able to access and upload documents. In this way, all partners have access to the same folders and to the most recent versions of the uploaded documents.

When the user enters the DMSF tab, a screen with the various folders appears. At the moment of writing the created folders aim to systematically store files relevant to administrative and planning issues, technical work per WP as well as to minutes of project meetings. By selecting a specific folder the user can view and interact with its contents.

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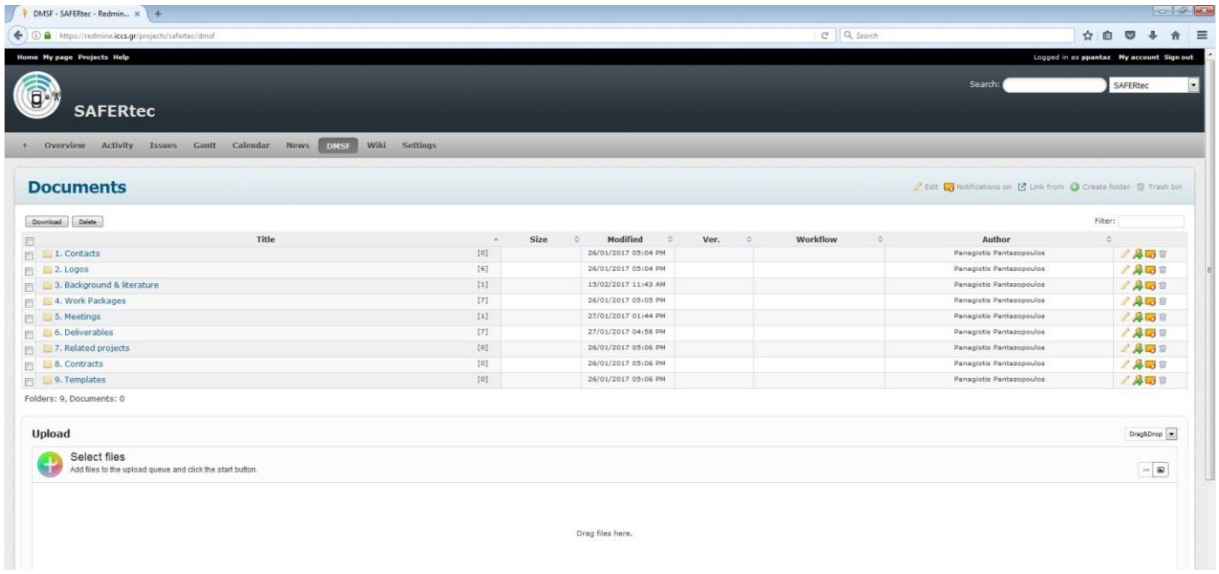

Figure 3: SAFERtec DMSF screen

The user can choose and download a specific document (already uploaded) or upload a new one. Several file management options are available (such as the ones depicted in the following snapshot *i.e.,* 'edit', 'lock', 'create folder', etc).

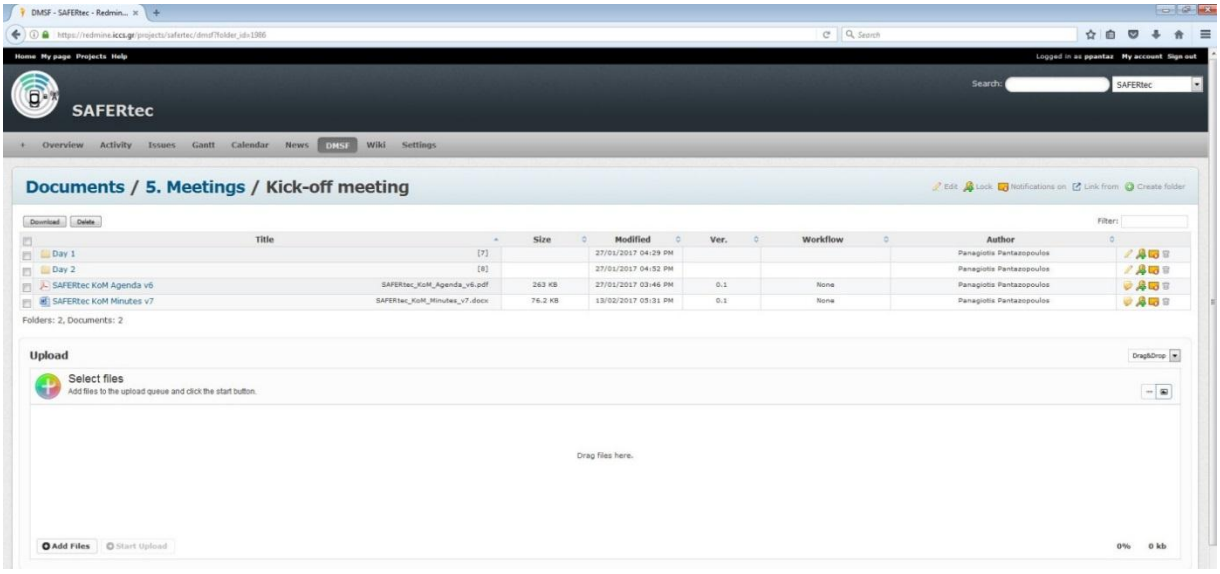

Figure 4: File management screen

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File uploading by authorized users (namely by all SAFERtec members) is a straight forward procedure. Multiple files can be dragged and dropped in the corresponding upload area or be selected from the local computer in the conventional way, using the operating system's file selection dialog box (see Figure 5). After the file is uploaded the user can enter a description for the file, comments and also the version number.

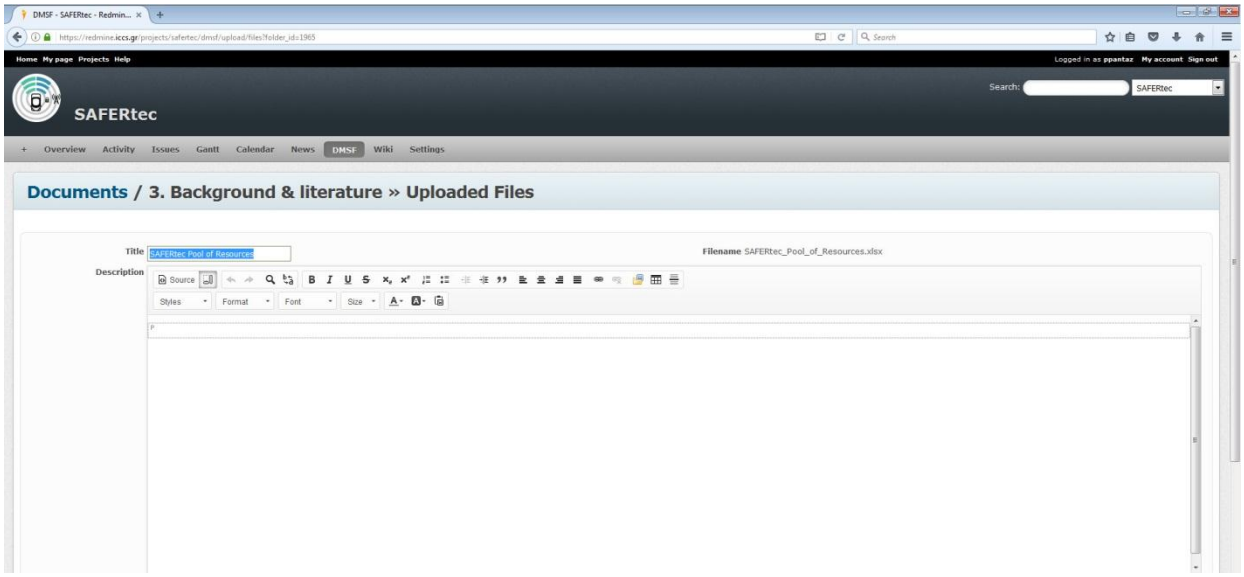

Figure 5: File upload screen

3.6 Wiki tab

The Wiki area will be continuously updated throughout the project. Currently, the SAFERtec Wiki section contains general information about Redmine, the SAFERtec deliverables list, the contact-details of the project members (in the format of an excel file) and some information on the SAFERtec procedures that will be followed along the dissemination activities of the project (see Figure 6).

The page entitled "dissemination procedures" will include the list of steps that each partner needs to take in order to inform the consortium about any upcoming dissemination activity (*i.e.*, publication, talk etc) and be given a formal agreement of other partners, where needed. The process is typically initiated by an interested partner who fills-in a "dissemination request" document.

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The wiki page, entitled “dissemination opportunities”, will include a calendar of future events which may be relevant for disseminating the project outcomes and a list of relevant scientific journals for submitting papers for publication. This page will help partners to stay constantly informed about any upcoming events that are relevant to SAFERtec. The lists will be regularly updated throughout the project life cycle

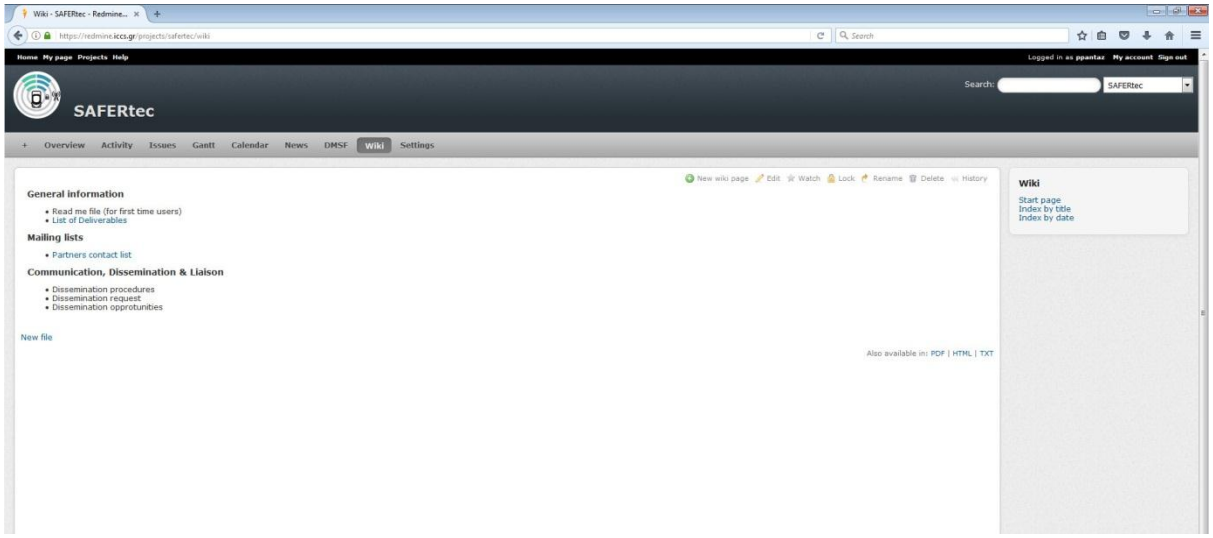

Figure 6: The current SAFERtec Wiki screen

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5 Conclusions

An Internal Collaborative Tool has been set-up form the very beginning of the SAFERtec project, in order to facilitate partners' cooperation and support the monitoring of the work being performed. The tool permits authorised users to store and work on shared documents and to create specific working areas which can be accessed by all users. Additionally, a tracking functionality has been added in order to monitor the requirements derived from WP1 and the way that these requirements are satisfied in the technical WPs.

Currently, thirty (30) authorised SAFERtec users have access to the tool and there are several working areas that have been setup for serving the work of the technical WPs.

The Internal Collaborative Tool will be active during the entire project duration and beyond, supporting the partners' cooperation and therefore enabling the smooth project execution from coordination but also technical point of view.

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References

1. Redmine: www.redmine.org/
2. The Trac project: https://trac.edgewall.org/
3. Ruby on rails: http://rubyonrails.org/
4. The GNU Operating System: http://www.gnu.org/

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