Clereco
Cross-Layer Early Reliability Evaluation for the Computing cOntinuum

Project Number: FP7-611404

D1.2 – Internal collaboration tools

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[1] *R: Report, P: Prototype, D: Demonstrator, O: Other*

[2] ***PU***: *public,* ***PP:*** *Restricted to other programme participants (including the commission services),* ***RE*** *Restricted to a group specified by the consortium (including the Commission services),* ***CO*** *Confidential, only for members of the consortium (Including the Commission services)*

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Scope of the document

This document is an outcome of the task T1.2, "Progress monitoring and internal reporting", elaborated in the description of work (DoW) of CLERECO project under the work package 1 (WP1). It provides an overview of the CLERECO project IT infrastructure employed for the collaboration among the project partners. It describes the whole set of tools that foster cooperation within the project, coordination and dissemination to the public.

1. Introduction

The project coordinator (POLITO) has developed the IT infrastructure resorting, whenever possible, to well establish open-source technologies. All tools use SSL encrypted communication to guarantee the privacy of confidential information.

The following picture presents the overall architecture of the IT infrastructure in CLERECO:
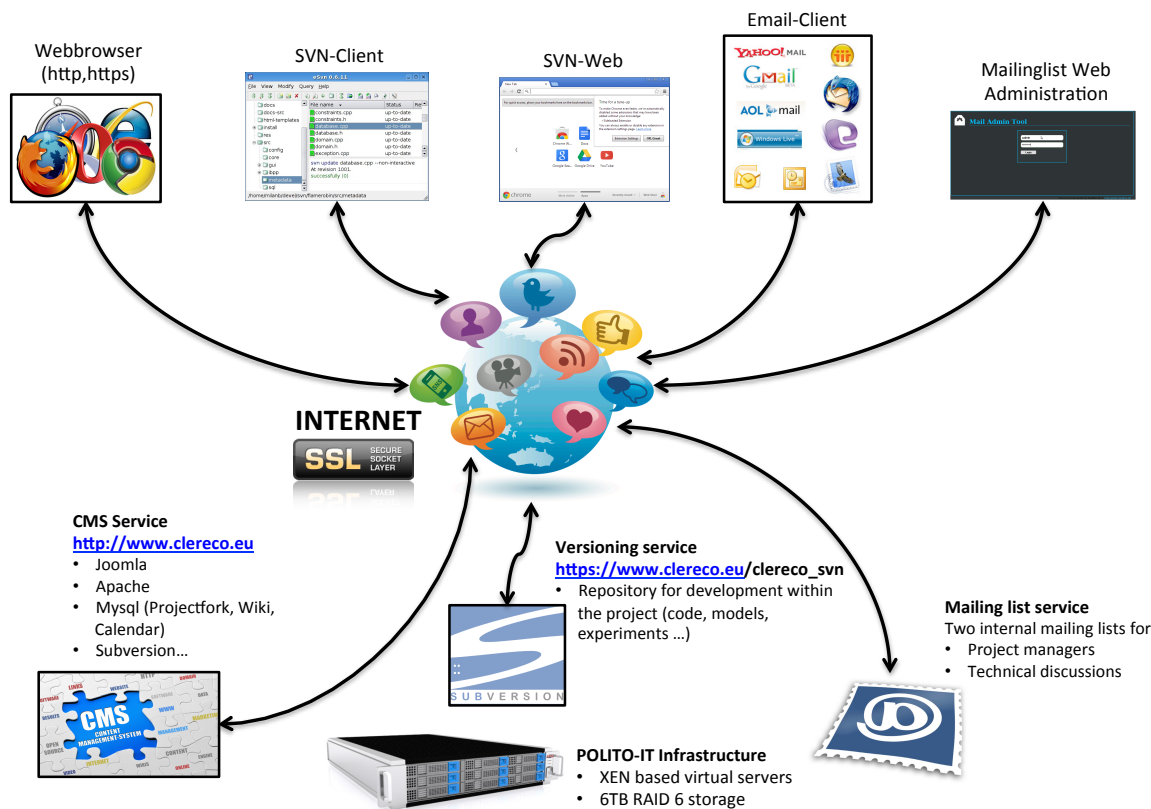

Figure 1: CLERECO IT Infrastructure

2. CMS Service

CLERECO has registered on the NIC the domain name **clereco.eu** to provide access to all its Internet based services. Most of CLERECO collaboration services are provided through the CLERECO website that is based on a CMS[3] named Joomla. Moreover, it uses a handful of extensions for collaborative working. The project website has been designed to provide a user-friendly and informative interface. Using an available open source solution greatly reduces the overhead connected with maintaining the website as it integrates with the workspace.

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[3] *Content Management System – is used to build complex websites easily*

The project website is split into a **Public** area, whose characteristics have been already described into deliverable D7.1 (D7.1 Project Website) and into a **Private** area providing a collaborative workspace described in this deliverable. The collaborative workspace (Figure 2) equips the private area with a restricted-access information portal for consortium members. This site will be continuously developed and updated to meet the collaboration needs of the consortium. The collaborative workspace is mainly based on the Joomla ProjectFork Plugin[4].
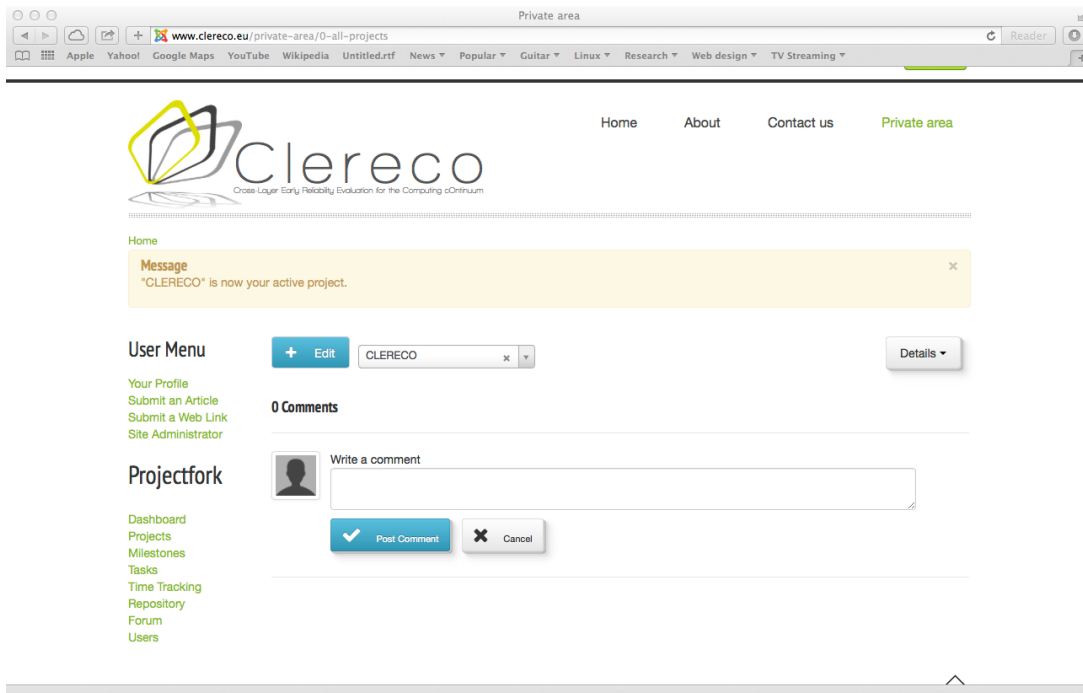
Figure 2: CLERECO Collaborative Workspace

The CLERECO collaborative workspace currently includes the following functionalities:

- **Account and content management**: the Joomla User Menu enables users to manage their personal accounts and to post information to the Public section of the website. Contents published on the public section of the website are always moderated by the project coordinator to guarantee the quality of the information.
- **Milestone tracking**: provides a detailed calendar of the project milestones. It enables to set users responsible for the milestones, to set deadlines and reminders and to connect the milestones to the corresponding tasks.
- **Task management**: provides a set of functionalities to track the project tasks activity including: involved users, discussion forums, instant messages, deadlines, documents, etc.
- **Repository**: a secure repository in which all project documents are stored. The repository provides document versioning to keep track of all versions of the submitted files as well as check-in and check-out functionalities to enable collaborative work on the different files. All project documents (e.g., contracts, meeting minutes, internal documents, press releases, financial management, deliverables, etc.) are stored into this repository and available to all partners based on an access control list managed by the project coordinator.
- **Forum**: provides a discussion forum useful to stimulate the discussion.

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[4] *ProjectFork website: http://projectfork.net*

The CLERECO collaborative workspace also includes a calendar service implemented through the Joomla JEvents[5] plugin. The calendar shows every user upcoming events separated into private and public event.

3. Subversion code repository

A Subversion code repository has been set up to allow consortium partners to share code and to maintain version control over code developed for the project. The Subversion server allows easy synchronization of code between the server and a participant's local file storage. The system includes tools for retrieving older versions of a particular file, resolving conflicts between different versions of the same file and locking files for local editing.

Some major advantages are, for example, the following:

- Offline availability of the data via SVN clients (stored on your local hard disc)
- Read-only access via HTTPS[4] (Web Browser)
- Synchronizing the data between Client/Server
- All former versions of the file are available and reproducible
- User authentication with group based privileges via ACLs (Access Control Lists)
- Email notification on activity (e.g. "commit" action)

The Subversion repository is accessible both via dedicated clients (e.g., Tortoise[6], RapidSVN[7], etc.) and through a web browser[8]. Due to strict firewall limitations of several of the industrial partners involved in CLERECO, the Subversion server has been configured in order to be accessible using HyperText Transfer Protocol (http) on the standard TCP port 80 that is usually open to enable access to the web.

4. Project mailing lists

A number of mailing lists are available to the project members for simplifying the communication with a set of participants. The mailing service has been established using the e-mail infrastructure available at Politecnico di Torino. Politecnico di Torino provides this service, upon request, to all coordinators of research projects and guarantee. The management of these lists is in charge of the coordinator to ensure the integrity of the lists.

The list of available mailing lists is reported in Table 1. Additional mailing lists (e.g., Workpackages, workpackage leaders, etc.) will be created during the project whenever required.

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[5] http://www.jevents.net

[6] http://tortoisesvn.tigris.org

[7] http://rapidsvn.tigris.org

[8] NOTE: with the Web Browser only read-access to the data is possible.

Table 1: CLERECO Mailing Lists

List	Address	Description
Technical	clereco@polito.it	This mailing list is devoted to technical discussions in the project.
Management	clereco_adm@polito.it	This mailing list is devoted to all management discussions.

5. Tele conferences solutions

We have identified FreeConferenceCall (https://www.freeconferencecall.com/) as a suitable remote collaboration tool for teleconferencing. FreeConferenceCall is accessible by phone or computer. Phone access with a wide list of international dial-in numbers has been one of the main motivations for choosing this service due to the restriction of some of the CLERECO industrial partners in using computer-based conference tools. FreeConferenceCall enables to distribute, archive or even send recordings to the conference listeners via RSS and podcast. Moreover, the online meeting feature makes it easy to conduct screen sharing sessions, online presentations, webinars, etc. The tool has been extensively used for the consortium agreement discussion and for several technical meetings working successfully to date.

In addition to the above tool, we have identified Skype as a suitable alternate video conferencing solution for smaller ad hoc meetings between small groups of partners (in particular, among academic partners). All involved partners have high-speed Internet connectivity, and therefore, Skype call quality for both voice and video is very high.

6. Conclusions

A framework for efficient collaboration within the project has now been put in place and is being actively used by all consortium members. These resources will continue to be developed and adapted to the project needs as required. The project also now has web presence to facilitate collaboration, dissemination and expansion of the external collaborators group.