



## D5.1 Project Website and internal IT communication infrastructure

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<b>Abstract:</b>	This deliverable briefly describes the project website set up at <a href="http://www.unique-security.eu">http://www.unique-security.eu</a> and the tools provided to facilitate cooperation and coordination.
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# 1 Introduction

This deliverable provides an overview of the UNIQUE project IT infrastructure: the project website as well as the whole set of tools foster the project cooperation, coordination and dissemination.

Technikon has especially developed this system for distributed project collaboration in the last 6 years. This trusted collaborative toolbox was awarded the ICT innovation prize for its security and completeness in Austria in November 2006.

The main components of the knowledge management infrastructure include the following:

- Content Management System incl. Public Website and internal area (CMS server - based on Joomla)
- A file versioning server (Subversion server)
- Jabber chat server
- Mailing list server

All four tools use encrypted communication paths and can be configured to work through corporate firewalls that allow encrypted web traffic (SSL). The versioning tool requires a client side program (SVN client) for uploading data but all other functions are directly accessible using a browser with java-script support.

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

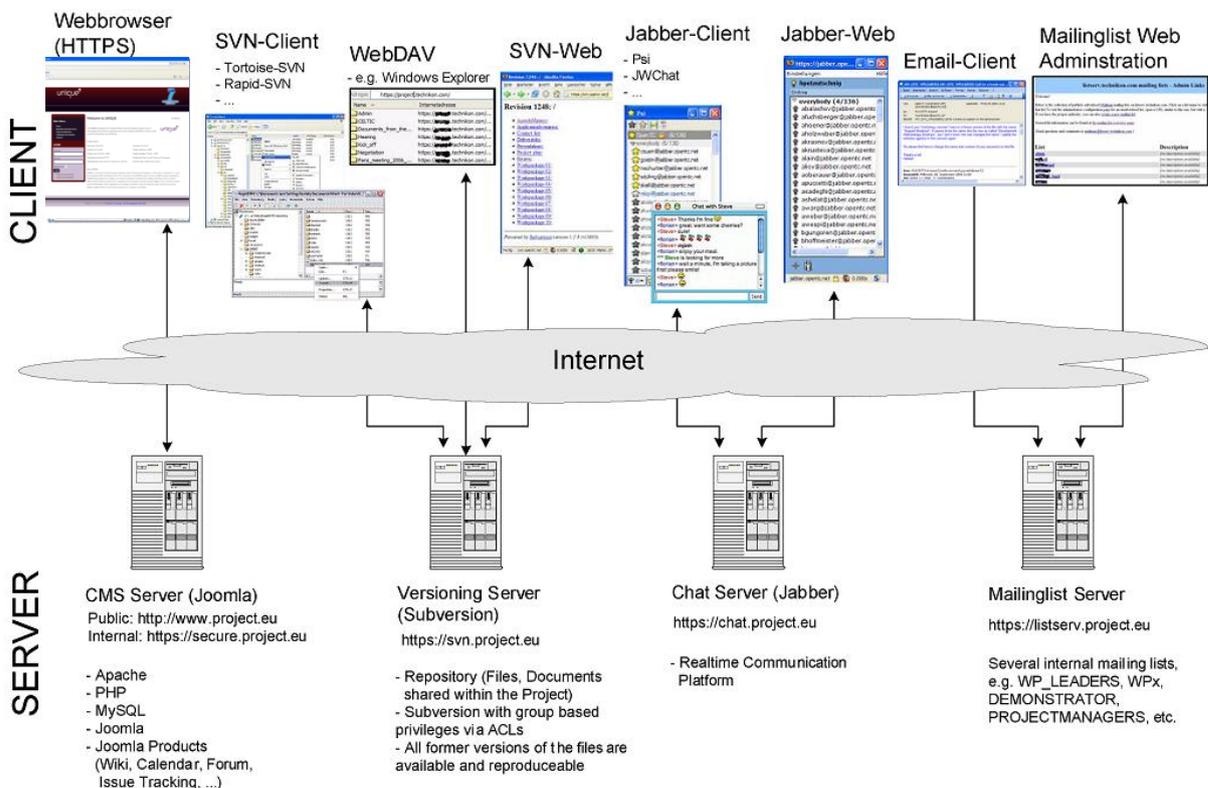


Figure 1: UNIQUE project IT infrastructure

All the features explained in the further document facilitate the collaboration work within the UNIQUE-FP7 project consortium. The IT infrastructure aims to support the communication among the partners while offering an open and accessible infrastructure to allow continuing and progressive work.

## 2 The project website

The project website has been designed to be easily accessible and give an introduction to the project. It is based on the Joomla! content management system which has been adapted to divide the site in to an open area for the public and a closed area for the project partners.

The Content Management System (CMS) "Joomla!" is a webserver which provides the public website of the project and additionally protected areas for members only. Additional to the information spreading platform plug-ins are available for the website on request. These are calendar, Wiki, discussion forum, issue tracker (computer software package that manages and maintains lists of issues and combines it with a certain knowledge base in order to provide users with information), project management tools or many other services on request.

Using a readily available open source solution greatly reduces the overhead connected with maintaining the website as it integrates with the workspace. The chosen solution also includes a number of tools for online WYSIWYG editing and provides templates for publishing news and events.

The UNIQUE project website is available on the following link:

<http://www.unique-security.eu>

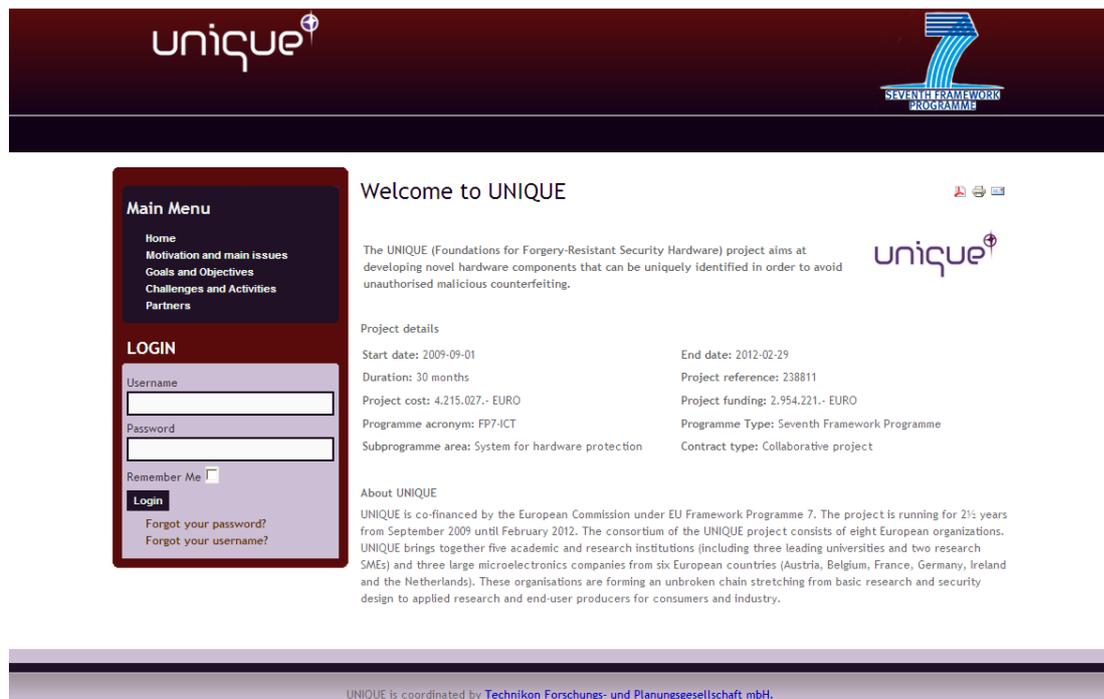


Figure 2: First page of the UNIQUE website

Figure 2 shows the actual first page of the UNIQUE website. The left side has a navigation slot, while on the right side the content of the respective section is given. The website can be best viewed with a standard web browser. The website will be kept alive throughout the project period and a few years afterwards.

### 3 Collaborative tools

A set of collaborative tools are provided by the coordinator to facilitate the cooperation within the project and to assist in the coordination work. The tools are:

- a protected online workspace (CMS),
- a private instant messaging server, also using encrypted communication,
- a versioning system for keeping track of code and documents, and
- a mailing list system for information exchange.

#### 3.1 Protected workspace

The collaborative workspace is using the same Joomla! platform as the website. The users log in to the workspace from the website and are then presented with the additional protected information accessible through a separated user menu. Once logged in, the user has read and write access to several useful and practical features such as a calendar or a file upload function. The "Change my details" functionality allows the user to change their email address and password. Moreover, the menu item "Documentation" provides helpful links and documentation concerning the internal IT infrastructure and SVN. With the mailing list connector in the protected workspace it is also possible for each user to subscribe to the different mailing lists online.

#### 3.2 SVN Server

The Subversion server allows easy synchronization of documents 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. A versioning file server is provided for easy synchronization of project information and for use as a code repository.

This is a very useful software tool for sharing documents within a project. It is a central file repository where all project partners can get access to the required documents.

Some major advantages are for example:

- Offline availability of the data via SVN clients (stored on your local hard disc)
- Read-only access via HTTPS (Webbrowser)
- Read-Write Access via WebDAV Connection (no SVN client necessary)
- 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 screenshot in the following figure shows the Tortoise subversion client with the directory browsing window and the revision history window open.

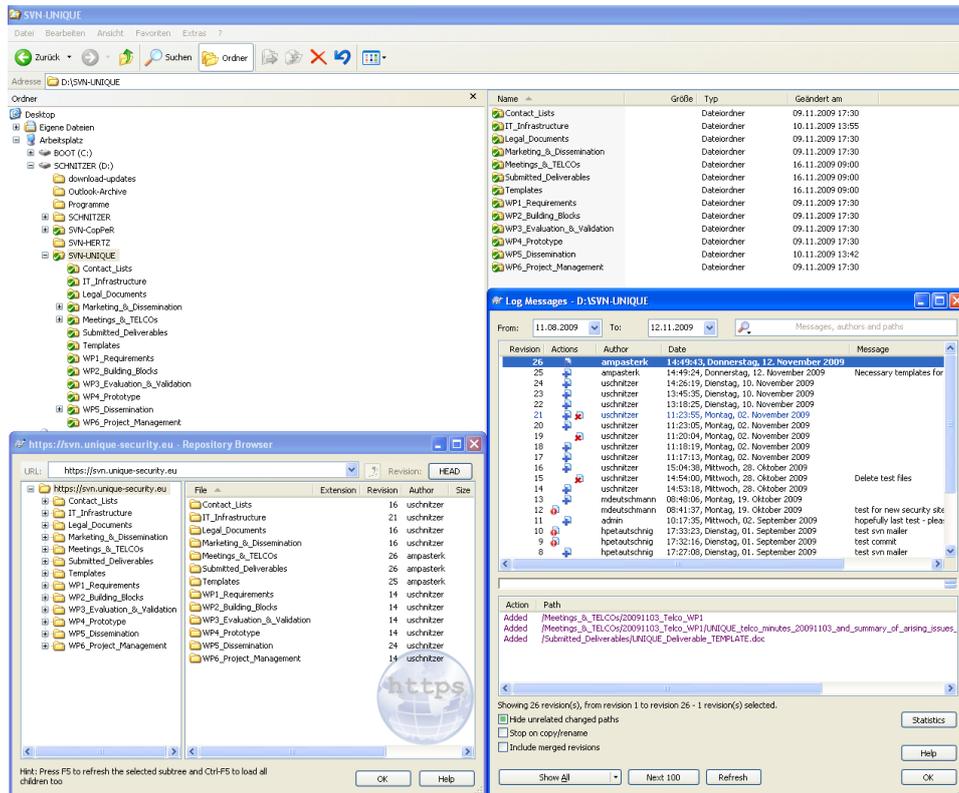


Figure 3: Subversion client with the revision history and repository browser open

To get a feeling how to handle the connection to the SVN Server the following chapter will show a short introduction in installing and using the software tool:

- Download and installation of the subversion client. The majority of the UNIQUE partners uses the Tortoise SVN, which can be downloaded from the internet <http://tortoisesvn.tigris.org/>
- Creation of a folder on a local disk. The folder can be named anyhow, for example C:\SVN-UNIQUE:

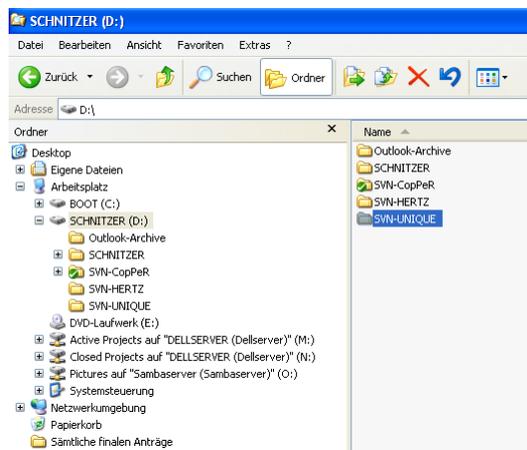


Figure 4: Creation of a folder on local disk

c) Right click on the folder and choose "SVN Checkout"

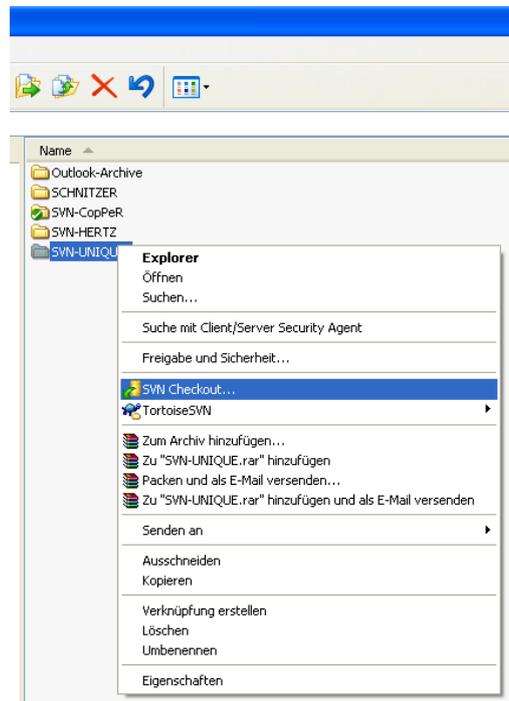


Figure 5: Choose SVN Checkout

d) <https://svn.unique-security.eu> has to be used as the URL of the repository.

e) At this stage the UNIQUE partners will have to provide their username and password, which is the same as for the other UNIQUE-FP7 IT services.

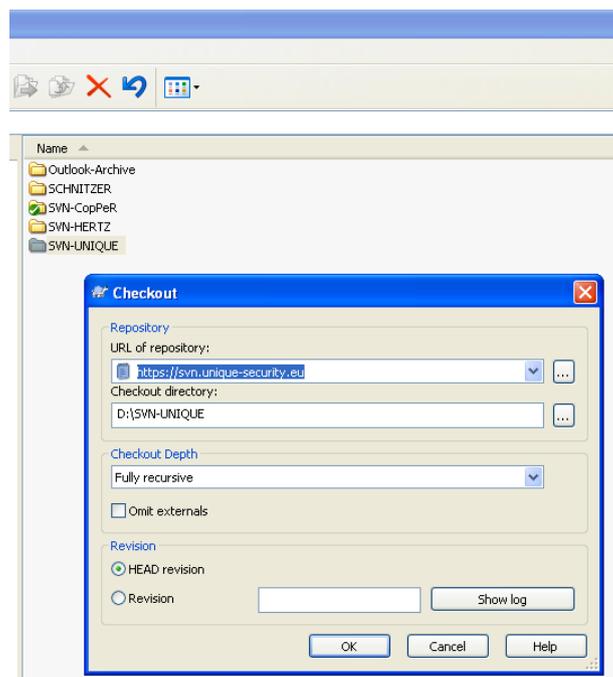


Figure 6: URL of repository

f) Download of the content of the repository to the newly created folder.

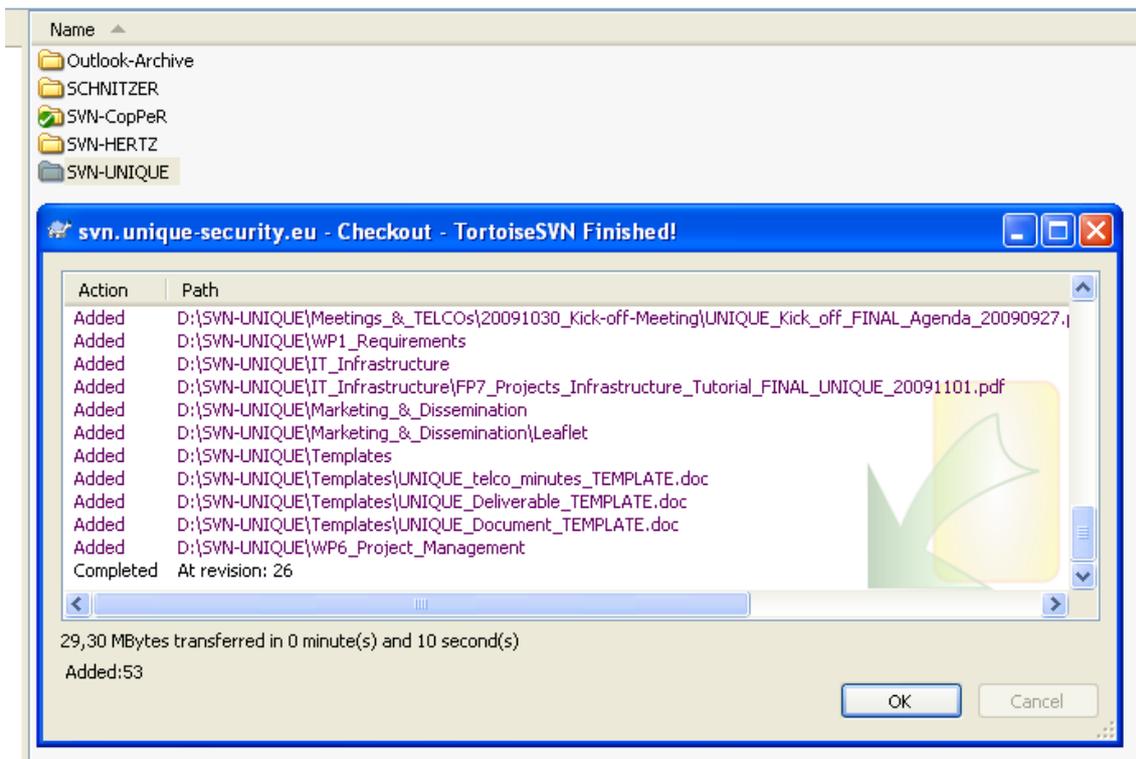


Figure 7: Download content of repository

**>> Keeping up to date**

- Right click on the folder and choose "SVN Update"

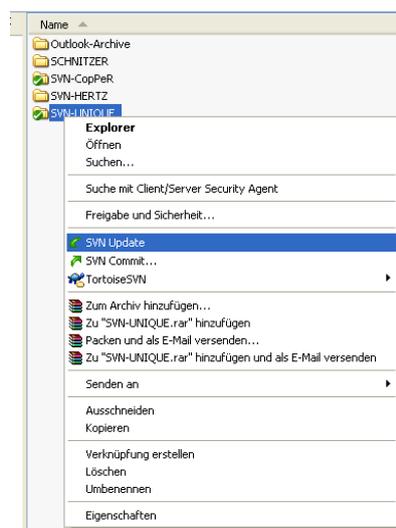


Figure 8: SVN Update

## >> Committing new documents (uploading)

- a) Saving of the document in an appropriate location within the folder created in the chapter above.
- b) Right click on the new file and choose TortoiseSVN -> Add. (A small + will be added to the icon of the file)
- c) Right click on the file again and choose "SVN Commit..."

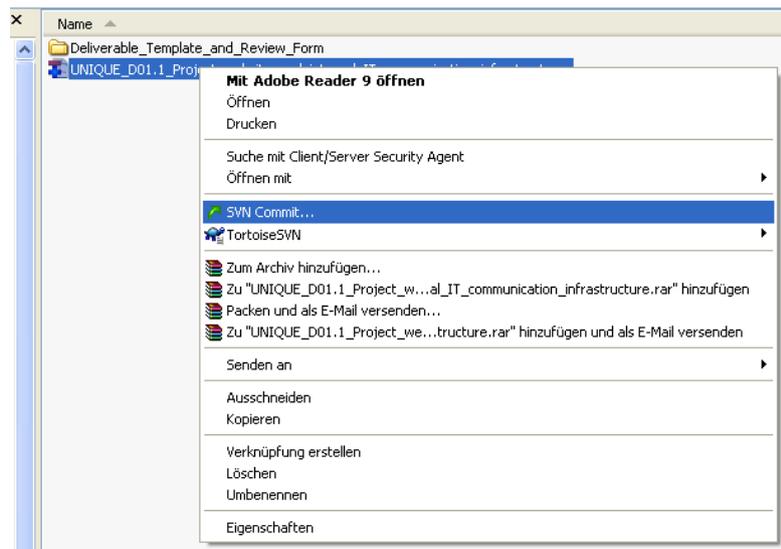


Figure 9: SVN Commit

- d) Possibility of entering a comment about the document and the updates.

## >> Email Notification after SVN commit

An additional email-notification feature makes it possible, that the UNIQUE partners get informed about the document changes. All persons, who are on the svn-all mailing list get an automatically generated email, including the name of the file which has just been edited and the comment.

So, the SVN is easy to handle and following these instructions the UNIQUE partners have no problem to work successfully with the SVN Server.

## 3.3 Jabber Chat server

An instant messaging server, based on the open Jabber protocol is maintained by the coordinator. The server provides a quick way to exchange a few words or transfer a file. It also supports multi-user conferences and has a built in User Directory. The service has been adapted to support access through corporate firewalls and a web client that will run on any recent java-script capable browser. Figure 10 shows the browser-based client (on the left), with the preference window open (bottom) on top of the login page. A native Windows client called Psi can be seen on the right.

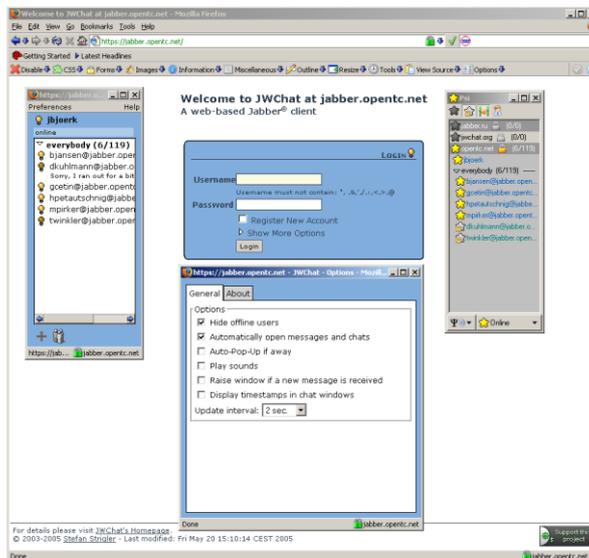


Figure 10: Jabber - browser-based Client vs. Windows client

Link: <https://chat.unique-security.eu>

Jabber is a real-time communication tool, that allows participants to chat with online partners.

To chat the UNIQUE partners have to choose between two forms:

- One-to-one chat: A group called "Everybody" will automatically appear on the roster when being connect to the service. This group contains all registered users. Simply double-click on a name to chat with that user.
- Group chat: choose join group chat in the PSI menu.
  - Host: **chat.unique-security.eu**
  - Room: this can be almost anything – if it doesn't exist it will be created

The installation of this communication tool requires the following steps:

- Download and installation of a client
  - A list of clients is available at jabber.org – 'PSI' for example is known to work in windows and the chat program 'Pidgin' is a cross platform solution which lets members log in to accounts on multiple chat networks simultaneously; its used by some members of the consortium.
- Username and password
  - The username is the same as for the other UNIQUE-FP7 IT services.
- Connect to the server **chat.unique-security.eu**

### 3.4 Mailing list Server

A number of mailing lists are available to the UNIQUE project members for easy communication with a set of participants. Each work package has its own mailing list and there are lists for the project managers, work package leaders, legal personnel etc. Subscriptions and other management tasks are done either via email commands or through the web interface in the protected workspace. Access is controlled by the coordinator to ensure the integrity of the lists.

Technikon has set up a mailing server with a wide range of different mailing lists, where all the people who are responsible for the various sections are subscribed.

Following mailing lists are available:

**List "All"**

All persons involved in the project

**List "General Assembly"**

Members of the General Assembly

**List "Work Package Leaders"**

Work package leaders and their deputies  
(members of the Executive Board)

**List "Legal"**

Legal contact/s of each partner

**List "SVN"**

Email notification on SVN commits

and the mailing lists for each work package:

**Lists "WP 1" to "WP 6"**

(Technical) discussions for each work package

## 4 Closing

This document describes the IT related infrastructure and will be updated throughout the project lifetime. Our experience during the last 6 years showed us, how important it is to guarantee trouble-free communication with our partners. Especially subversion offers a fast and easy way of data and knowledge exchange. In combination with our other IT tools, we are able to provide a solid foundation for any project management task.

## 5 List of Abbreviations

UNIQUE	UNIQUE Foundations for Forgery-Resistant Security Hardware
CMS	Content Management System
SVN	Subversion
SSL	Secure Sockets Layer
HTTPS	Hypertext Transfer Protocol Secure
WebDAV	Web-based Distributed Authoring and Versioning