

## D7.1 Project internal IT communication infrastructure

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# 1 Introduction

This deliverable provides an overview of the TACO project IT infrastructure, that is a whole set of tools that foster the project cooperation, coordination and dissemination.

This system has been especially developed by Technikon for distributed project collaboration in the last 5 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 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:

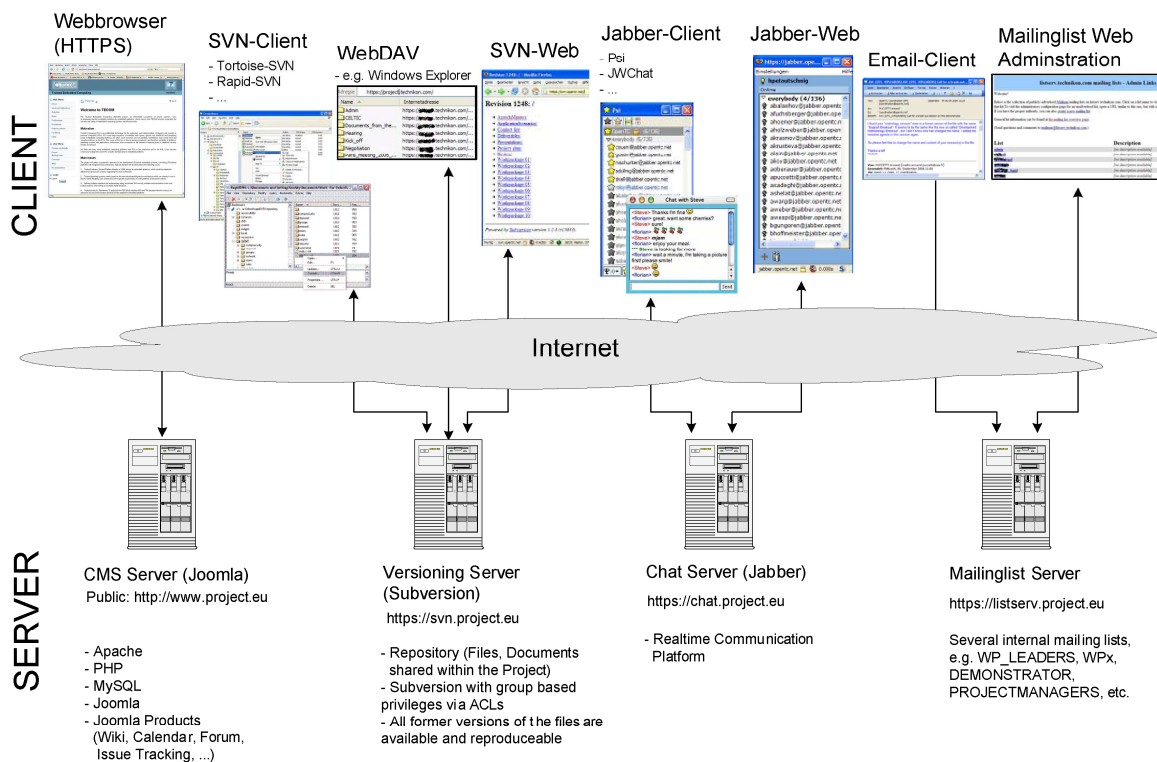


Figure 1: TACO project IT infrastructure

All the features explained in the further document facilitate the collaboration work within the TACO-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 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.

### 2.1 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 Wiki, calendar or a real-time chat system. 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.

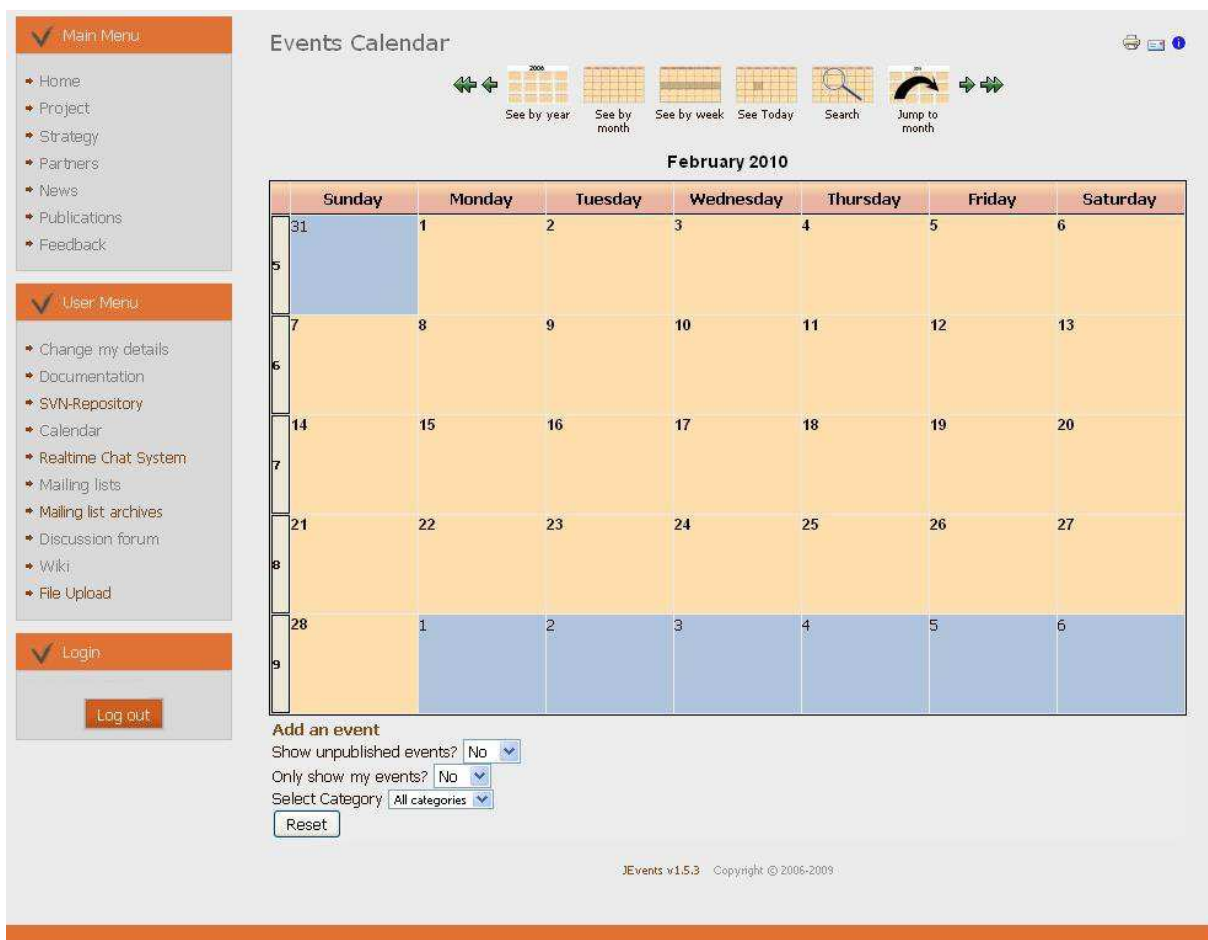


Figure 2: Calendar within the protected workspace

## 2.2 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
- 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 3 shows the Tortoise subversion client with the directory browsing window and the revision history window open.

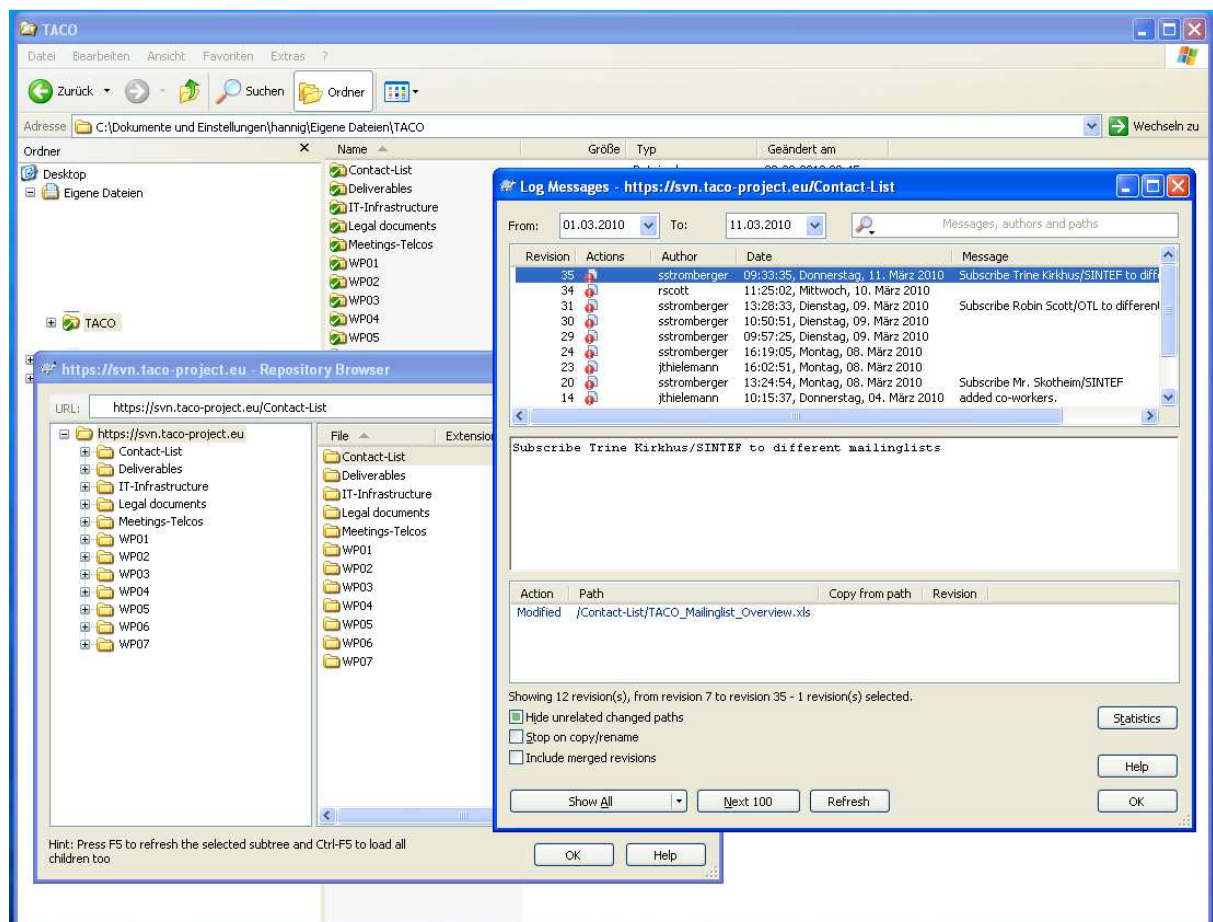


Figure 3: Subversion client with the revision history and repository browser open

Link: <https://svn.taco-project.eu>

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:

a) Download and install the subversion client.

The rest of this instruction will assume that you have installed the TortoiseSVN client.

b) Create a folder on a local disk. For example C:\svn.taco-project.eu:

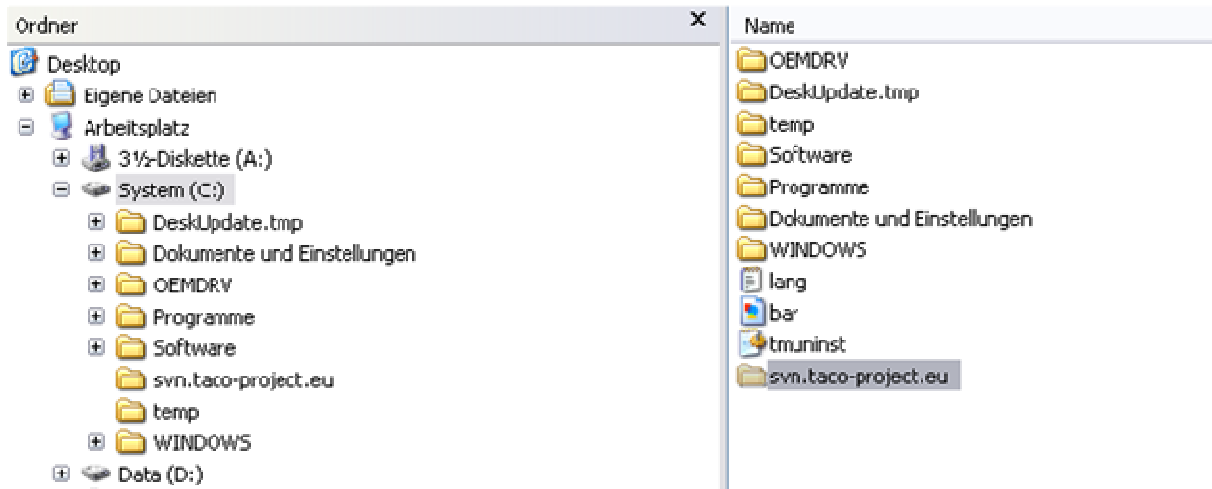


Figure 4: Create folder on local disk

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

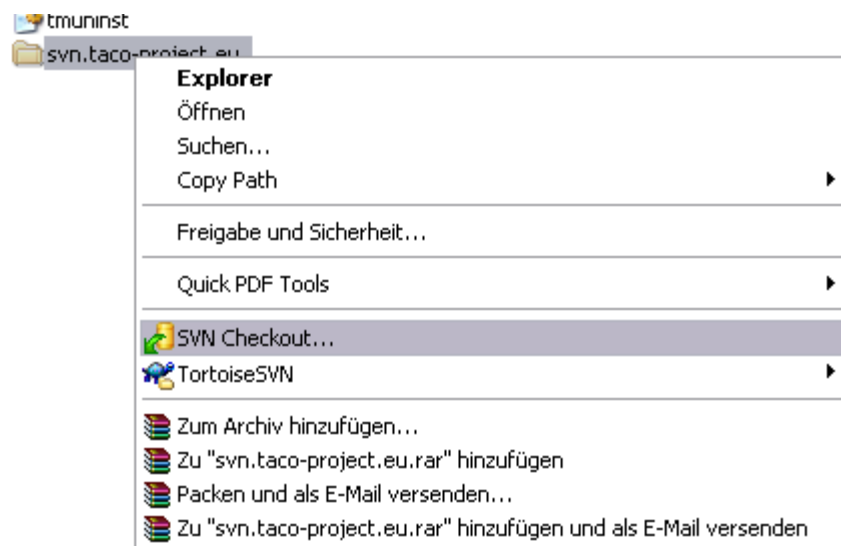


Figure 5: Choose SVN Checkout

d) Use <https://svn.taco-project.eu> as the URL of the repository. Everything else can be left as it is.

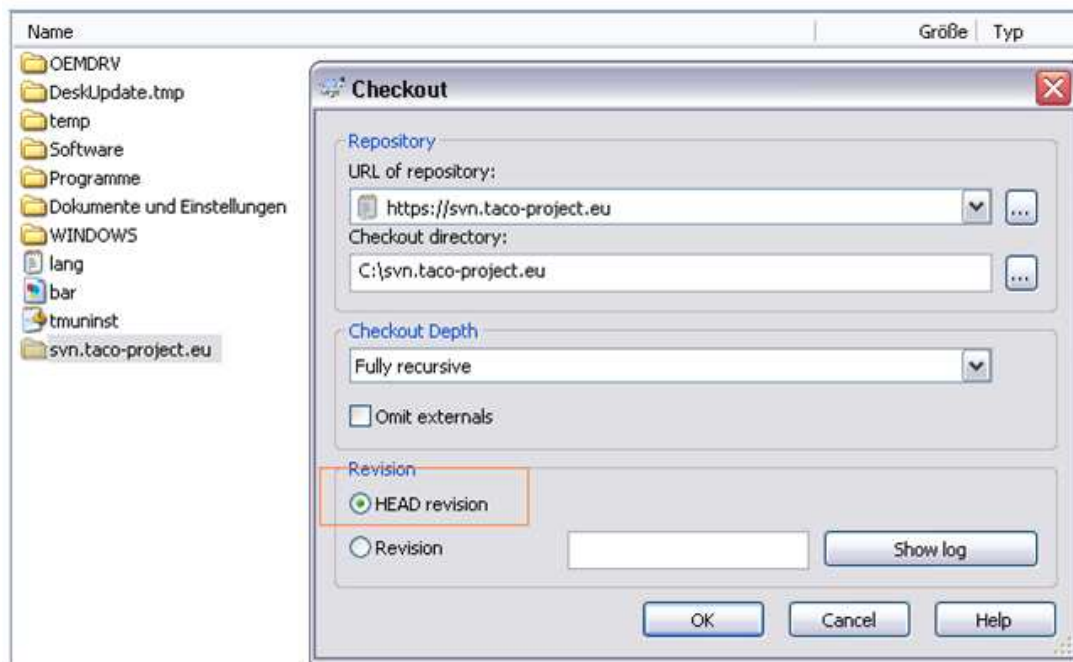


Figure 6: URL of repository

e) Download the content of the repository to the newly created folder. This might take a while, depending on the bandwidth and the size of the repository.

svn.taco-project.eu



Figure 7: Download content of repository

>> Keeping up to date:

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

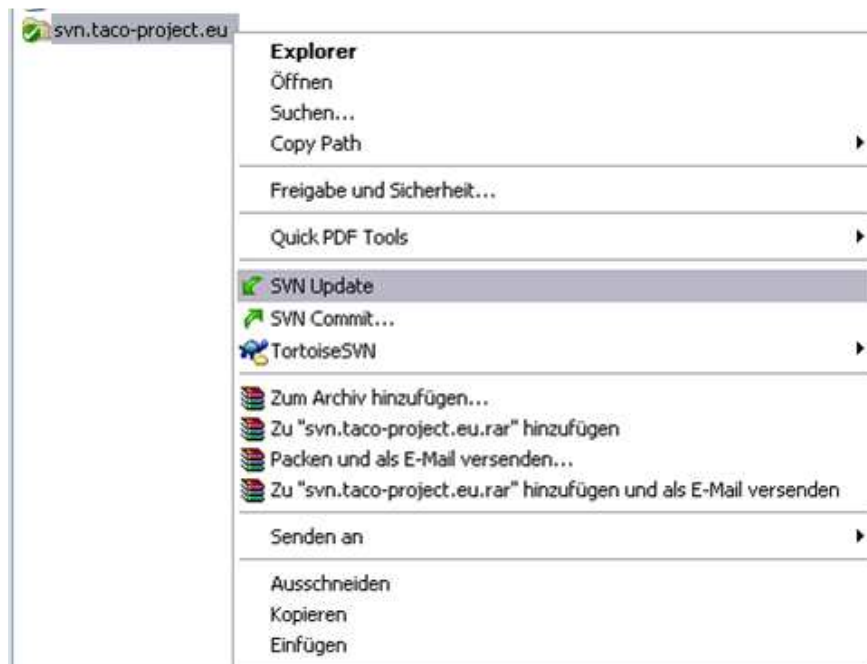


Figure 8: SVN Update

>> Committing new documents (uploading)

- a) Save 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..."

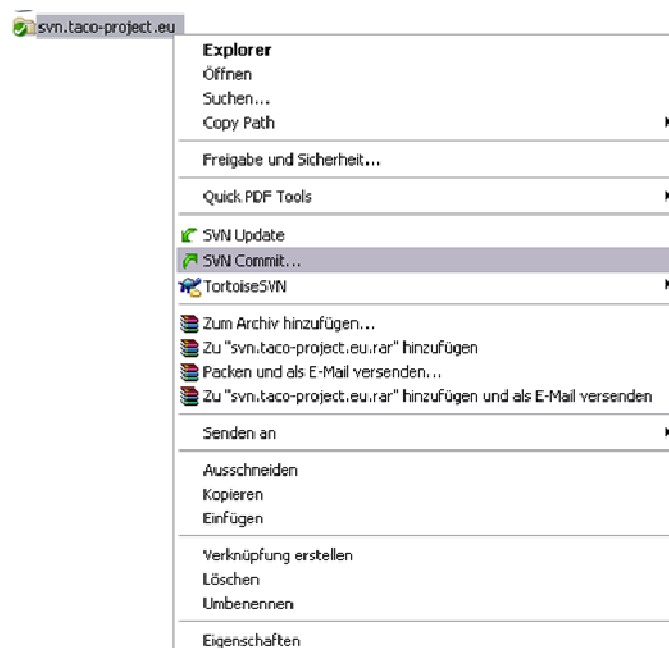


Figure 9: SVN Commit



d) Enter a comment about the document and the updates you made.

If you follow these instructions it should be no problem to work successfully with the SVN Server.

### 2.3 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.

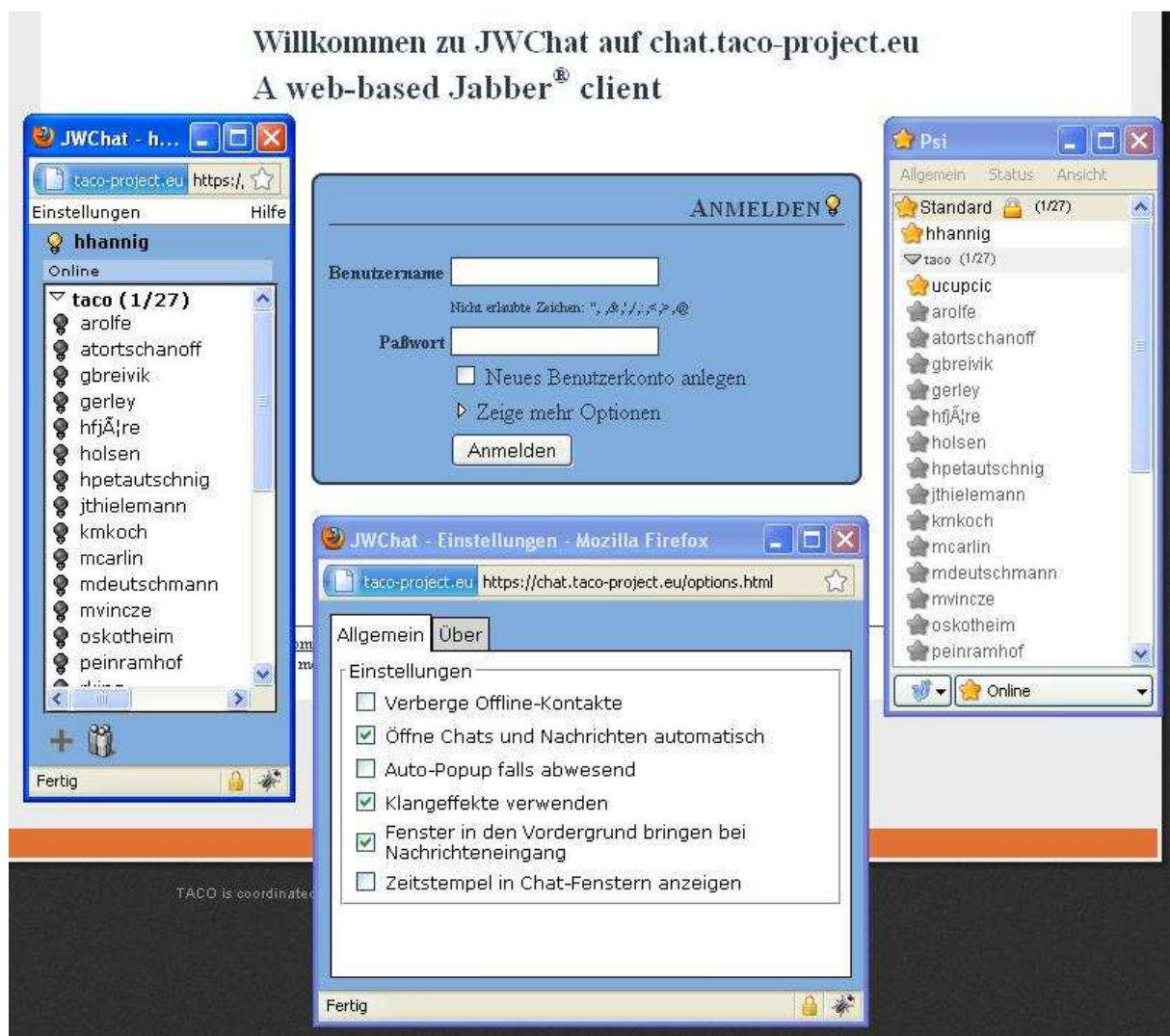


Figure 10: Jabber - browser-based Client vs. Windows client

Link: <https://chat.taco-project.eu>

Jabber is a realtime communication tool, that allows to chat with online partners.

To chat you can choose two forms:

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

But how do you get this communication tool?

- Download and install a client

A list of clients is available at jabber.org - PSI is known to work in windows and Pidgin is a cross platform solution used by some members of the consortium.

If you choose something else, please make sure that it supports encrypted connections.

- Username and password

Your username is the same as for the other TACO-FP7 IT services.

- Connect to the server chat.taco-project.eu

## **2.4 Mailing list Server**

A number of mailing lists are available to the project members for easy communication with a set of participants. Each Workpackage has its own mailing list and there are lists for the project managers, workpackage 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 mailinglists, where all the people who are responsible for the various sections are subscribed.

Following mailinglists are available:

List "all":

All personnel actively involved in research

List "general-assembly":

General assembly members and deputies

List "legal":

Personnel with legal/contractual responsibilities

List "svn-all":

email notification on SVN commits.

List "wp1" to "wp7":

technical discussions for workpackage 1 to workpackage 7

List "wpleaders":

The workpackage leaders and deputies

## **2.5 Wiki**

The Wiki is meant as an additional knowledge base for the project members, which can be used to share specialized knowledge between all partners if needed.

## **2.6 File Upload**

This flash file uploader can be used to share files e.g. pictures and so forth, which are off topic in the SVN Repository

## **2.7 Calendar**

The Calendar can be used to keep in track of important appointments, such as telephone conferences, meetings or deadlines.

## **3 Closing**

This document describes the IT related infrastructure and will be updated throughout the project lifetime.

## **4 List of Abbreviations**

TACO	Three-dimensional Adaptive Camera with Object Detection and Foveation
CMS	Content Management System
SVN	Subversion
SSL	Secure Sockets Layer
HTTPS	Hypertext Transfer Protocol Secure
WebDAV	Web-based Distributed Authoring and Versioning