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Building the European Network For Lifelong Competence Development

TENCompetence IST-2005-027087

Project Internal Deliverable Report

ID3.8 Release 2.0 of the TENCompetence integrative software

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Abstract (for dissemination)	The document explains the instal set up instances of the PCM clien	lation and c t and the PC	onfiguration steps to CM server.
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Version history

Version	Date	Description	Editor(s)
0.1	21-04-2008	Initial version.	Arne Koesling (UHANN)
0.2	24-04-2008	Review by Ruud Lemmers.	Ruud Lemmers (LCMG)



1. Introduction

The TENCompetence software consists to date of several tools, but the main ones are the Personal Competence Manager (PCM) applications. This includes the PCM server and the PCM client. The server application provides the different services, the storage space for learning material and the meeting point for learners. The PCM client is the application to make use of those services and provide the learner a combined learning and communication environment for an individualized learning experience. The goal of this document is the formal delivery of release 2.0 of the TENCompetence integrative software.

This internal deliverable is comprised of three parts:

- 1. The second version of the actual software.
- 2. An installation & configuration guide for the PCM client, included in this document.
- 3. An installation & configuration guide for the PCM server, included in this document.

The software is available on Sourceforge, an open accessible online repository hosting only software projects under open source license models, at

http://sourceforge.net/projects/tencompetence/. The source files for this release have been tagged at the end of January 2008 with label tenc-pcm-server-release-1p0p0 (PCM server) and tenc-pcm-client-release-1p0p0 (PCM client). The "1.0.0" label might be unexpected. It's because the first release was tagged as "1.0 beta 2".

Documentation for the software is available in internal deliverables ID3.6 (Architecture Design) and ID3.7 (Final API definitions for the second release), as JavaDoc in the source code itself and in the user manual created by the Training work package.



2. PCM client installation & configuration

Note: the described steps are targeted at installation & configuration on a Windows system. The steps for Linux and Mac systems will differ slightly.

2.1. Installation

To install the PCM client on a Windows machine, take the following steps:

- 1. Download the PCM client software for your operating system from SourceForge: http://sourceforge.net/projects/tencompetence/:
 - Linux: tencomp-pcm-lnx-1.0.tar.gz
 - MAC: tencomp-pcm-mac-1.0.tar.gz

The following give the choice between a zip file or an installer which installs the product automatically via a wizard.

- Windows: if you are sure you have installed the Java Runtime Environment ("JRE"), select tencomp-pcm-win-1.0.zip. In all other cases select tencomp-pcm-win-jre-1.0.zip.
- Windows: installer with JRE; tencomp-pcm-win-jre-1.0.exe Windows: installer without JRE; tencomp-pcm-win-1.0.exe
- 2. Unzip the downloaded file to a folder of your personal choice.

2.2. Configuration

- 1. Run *tencomp-pcm.exe* from the folder created in installation step 2.
- 2. The PCM client uses a default public PCM server. In case you need to switch to a special PCM server: select menu option *File => Preferences*, then set *Discovery Server URL* to the "http address" of your discovery server. Ask your PCM system administrator for this http address. The regular format is http://{server:port}/TENCDiscovery/servers.

The two figures below illustrate this step.



	пер	
New		
Close Close All	Ctrl+W Ctrl+Shift+W	npetence Client
[] Save 영 Save As	Ctrl+S	
Save All Ctrl+Shift+S		tart using this application
Export configurat Import configurat	ion file	ccess Help and learn how to use this application
Properties	Alt+Enter	
Preferences		
Exit		

Figure 1: select menu option

Preferences		
type filter text	Connection	↓ ↓ -
Chat Connection Connection General Help	Discovery Server URL: http://193.145.44.9:	8080/TENCDiscovery/servers
		OK Cancel

Figure 2: set Discovery Server URL

3. PCM server installation & configuration

This document covers installation and configuration on Windows and Linux systems. Installation on Apple machines (Mac) is not incorporated.

3.1. Installation

To install the PCM server on a Windows machine, take the following steps:

- 1. Download and install the *Java Runtime Environment (JRE)* 5.0 Update 6 (or a later 5.0 update or a 6.0 version) from http://java.sun.com/javase/downloads/index_jdk5.jsp.
- 2. Download and install the *Core distribution for Apache Tomcat 5.5.23* (or a later 5.5 update) from http://tomcat.apache.org/download-55.cgi.
- 3. Download and install the *MySQL 5.0.41 Community Server* (or a later 5.0 update) from http://dev.mysql.com/downloads/mysql/5.0.html#downloads.
- 4. Download and install the *MySQL GUI Tools Bundle for 5.0* from http://dev.mysql.com/downloads/gui-tools/5.0.html.
- 5. Download the *PCM server* software from SourceForge: http://sourceforge.net/projects/tencompetence/.
- 6. Download the Openfire chat server from http://www.igniterealtime.org/projects/openfire/index.jsp.

3.2. Standard Configuration

Create environment variables for your Java version.

In Windows this is done via *Control Panel => System => Advanced => Environment Variables => System Variables*. Create the system variable:

JRE_HOME: if you downloaded a JRE.

JAVA_HOME: if you downloaded a JDK.

And assign it the path to the root folder of your installed Java version to this new system variable. Example: "C:\java\jdk1.5.0_11".

For Linux installations information on how to do this can be found in your distributions documentation. If multiple Java versions are installed, it is advised to use a wrapper script around the Tomcat start/stop script.

Unzip the downloaded PCM server file to a temporary folder.

- From the temporary folder, copy the *TENCServer.war* and *TENCDiscovery.war* files to your *apache-tomcat-5.5.23**webapps* folder.
- From the temporary folder, copy the *mysql-connector-java-5.0.5-bin.jar* file to your apache-tomcat-5.5.23\common\lib folder.
- Run the *MySQL Server Instance Config Wizard*, to set up an instance of MySQL. Use the typical installation and accept the defaults. Use user *root* and password *admin* for the root user account as they are the defaults in the TENCompetence installation files. Be aware that there is no default root password for MySQL on Linux systems. The root password can be set using MySQL Administrator.
- Open the *MySQL Query Browser*, this shows the screen from *Figure 3*. Use the username *root* and password *admin* combination you selected during step 5. Because there is no "Default Schema", the popup from *Figure 4* will be shown next. Select "Ignore" to continue without selecting a schema.



MySQL	Query Browser	1.2.12
Mysc Quer	y Browser	5
Cor	nnect to MySQL Ser	ver Instance
	Stored <u>C</u> onnection:	· · · · · · · · · · · · · · · · · · ·
	Server <u>H</u> ost:	localhost Port: 3306
	<u>U</u> sername:	root
	Password:	
	Default <u>S</u> chema:	
	etails >>	OK Clear Cancel

Figure 3: connect to MySQL Server Instance

Connection Dialog - No Default Schema Specified				
You have not specified a default schema for this connection. Although it is possible to connect without specifying default schema you are highly encouraged to do so.				
Pouc withe				
Do not show this message anymore.				
OK Ignore				

Figure 4: Connection Dialog - No Default Schema Specified

Select menu option *File => Open Script...* and open the *full_setup_db.sql* file from the temporary folder. Your screen should look like *Figure 3* now. After opening the full_setup_db.sql script, click the green Execute button to create the initial database.

Note: If there is an existing PCM database from PCM v1.0 beta 2 which contains data that must be reused then use the *update_db_competencelevel.sql* script. This script will update the database to PCM v1.0.0.





Figure 5: full_setup_db.sql file

For Windows installations move the serverlist.xml file in the temporary folder to folder *c:\data* (if the folder does not exist, create it). For Linux installations, move serverlist.xml to a folder that is reachable for the user running the Tomcat process.

The\apache-tomcat-5.5.23\webapps\TENCDiscovery\WEB-INF\conf\server.properties file now contains the location (file.path setting) and filename (file.name) for the serverlist.xml file. Note: the file.path setting should end with a folder separator.

After these steps, the default configuration for the PCM server is complete. Starting and stopping the application is done by standard Tomcat scripts: In Windows:

- 1. Running\apache-tomcat-5.5.23\bin\startup.bat starts the Tomcat server.
- 2. Running\apache-tomcat-5.5.23\bin\shutdown.bat stops the Tomcat server.

In Linux:

3. Running\apache-tomcat-5.5.23\bin\catalina.sh start|stop controls the Tomcat server or alternatively the wrapper script.



3.3. Openfire installation & configuration

- 1. Run the OpenFire installer. After successful installation, it shows the Admin console.
- 2. Select "Launch Admin" to configure OpenFire. The default settings can be accepted, except for *Database Settings*. Set this to "Embedded Database".
- 3. Open the *Openfire.xml* file found in the *PCM server software* package (see section 1, step 5).
- 4. Add an admin username between <authorizedUsernames> </authorizedUsernames> This has to be a username which is available in the TENC database.
- 5. Make sure the following sections contain the right information relating to the TENC database you want to use.

```
<database>
              <defaultProvider>
                             <driver>com.mysql.jdbc.Driver</driver>
                             <serverURL>jdbc:mysql://<host>:<port>/tenc</serverURL>
                             <username><username></username>
                             <password><password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></password></passwo
                             <minConnections>5</minConnections>
                             <maxConnections>15</maxConnections>
                             <connectionTimeout>1.0</connectionTimeout>
              </defaultProvider>
</database>
<setup>true</setup>
<jdbcProvider>
              <driver>com.mysql.jdbc.Driver</driver>
<connectionString>jdbc:mysql://<host>/tenc?user=<username>&amp;pa
ssword=<password></connectionString>
</jdbcProvider>
```

- 6. When the necessary changes are completed copy the *openfire.xml* file to *Program Files\Openfire\conf.*
- 7. Restart the Openfire server and click "Launch admin". This will open up a login screen to the Openfire administration website. Logon with the user you configured in openfire.xml.



Click Launch Admin



🚰 Openfire Admin Console - Microsoft Internet Explorer	
<u>Eile E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools <u>H</u> elp	2
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Address 🙆 http://127.0.0.1:9090/login.jsp?url=%2Findex.jsp 🔽 🄁 Go	Links »
	*
openine Administration Console	
username password	
Openfire, Version: 3.3.2	
	-
Done	: <i>[</i>],

Login screen



8. In the first screen (Server => Server settings) it will show a *Server Name*. If this is an IP address you will need to change it to the publicly resolvable hostname of the server. Click edit at the bottom of the page to change the *Server name*.

🏄 Openfire Admin Console: Server	Settings - Micr	osoft Interr	iet E	cplorer	<u>_8</u> _
je Edit Vjew Favorites Iools Help					
🕞 Back 🔹 🕥 🖌 🗾 🛃 🦿	🏠 🔎 Search	- 🥎 Favor	rites	🥴 🍰 🍓 🗷	+ 🔜 🏭 🦓
Address Address http://127.0.0.1:9090/ind	lex.jsp				So Links *
G Openfire Administra Server Users/Gro	ation Console Dups Sessio	ns Grou	p Ch	at Plugins Enterj	▲ Drise Logout [paddy]
Server Manager Server Settings System Properties Language and Time	Server Settin Below are prope	ngs rties for this	s ser	ver. Click the "Edit Prop	perties" button below to change some of the server settings. Some settings can not be changed.
Cache Summary	Server Prope	rties			
Database	Server Uptime:				3 days, 1 hour, 2 minutes started Sep 18, 2007 4:32:42 PM
Email Settings	Version:				Openfire 3.3.2
C	Server Home:				C:\Program Files\Openfire
Profile Settings	Server Name:				nl-maa-d111175
Server to Server	Environment				
External Components	JVM Version and Vendor:				1.6.0_01 Sun Microsystems Inc Java HotSpot(TM) Server VM
HTTP Binding	Appserver:				jetty-6.1.x
Manage Updates	OS / Hardware:				Windows XP / x86
Registration & Login Resource Policy	Locale / Timezone:				en / Central European Time (1 GMT)
Offline Messages	Java Memory				13,34 MB of 63,31 MB (21,1%) used
Message Audit Policy Private Data Storage	Server Ports	•			
Server Certificates	Interface	Port		Туре	Description
Compression Settings File Transfer Settings	All addresses	5222	9	Client to Server	The standard port for clients to connect to the server. Connections may or may not be encrypted. You can update the security settings for this port.
Search Properties	All addresses	5223	9	Client to Server	The port used for clients to connect to the server using the old SSL method. The old SSL method is not an XMPP standard method and will be deprecated in the future. You can update the <u>security settings</u> for this port.
Media Services	All addresses	5269	9	Server to Server	The port used for remote servers to connect to this server.
STUN Settings	All addresses	9090		Admin Console	The port used for unsecured Admin Console access.
	All addresses	9091	9	Admin Console	The port used for secured Admin Console access.
	All addresses	7777		File Transfer Proxy	The port used for the proxy service that allows file transfers to occur between two entities on the XMPP network.
	All addresses	8090		HTTP Binding	The port used for unsecured HTTP client connections.
	All addresses	8483	0	HTTP Binding	The port used for secured HTTP client connections.
2	All addresses	3478 & 3479		STUN Service	The port used for the service that ensures connectivity between entities when behind a NAT.
E					j j j Local intranet

Check Server Name and edit if necessary.

9. Click *HTTP Binding* in the left hand menu and check that it is set to enabled. If it is disabled then enable it and change the port number from 8080 to a free port on the server.



Opentire Admin Console: I	11 TP Bind Settings - Microsoft Internet Explorer	_ 6)
<u>File Edit View Favorites</u>	Iools Help	
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Address) http://127.0.0.1:90	190/http-bind.jsp	▼ 🔁 Go Links *
🛛 😽 Openfire Admi	nistration Console	
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Server Osers		Eogoar (page)
Server Manager		
Server Settings	HIIF bild Settings	
System Properties	HTTP binding allows clients using the HTTP protocol to connect to the server.	
Language and Time		
Cache Summary	Enabled - Clients can connect to this server using HTTP binding.	
Database	Port: 8090	
Logs		
Email Settings	SSL POR: 8483	
Server Settings	O Disabled - Clients will not be able to connect with this server using HTTP binding.	
Profile Settings		
Server to Server	Save Settings	
External Components	ouve obtainings	
Connection Managers		
HTTP Binding		
Manage Updates		
Registration & Login		
Resource Policy		
Omine Messages		
Private Data Storage		
Security Settings		
Server Certificates		
Compression Settings		
File Transfer Settings		
Search Properties		
Media Services		
STUN Settings		
STON Settings		
	Openfire 3.3.2, built by <u>Jive Software</u> and the <u>IgniteReattime.org</u> community	
Done, but with errors on page	ананананананананананананананананананан	Local intranet
		, , , , , , , , , , , , , , , , , , , ,

Change HTTP binding port if necessary.

10. Restart the Openfire server by clicking stop -> start.

