SoMedAll- Social Media for All Elderly People

D 3.5 Integrated Pilot Platform and Documentation

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Contents

1 Introduction

This deliverable documents the integrated pilot platform for SoMedAll social media service. The document contains an overview of the integrated pilot platform, documentation the implemented software and examples of services built on the platform.

2 Terminology

Term	Definition
BuddyPress	An open source social networking software package.
Hibernate	An object-relational mapping (ORM) library for the Java language, providing a framework for mapping an object-oriented domain model to a traditional relational database.
PHP	A general-purpose server-side scripting language originally designed for web development to produce dynamic web pages.
TV BOX	A digital TV tuner box running on PC
Kiosk mode	A browser mode that hides all standard taskbars and the browser toolbar.

3   Integrated pilot platform overview

As defined in the SoMedAll Platform Architecture design deliverable D3.1, the integrated platform consists of two subsystems (Figure 1):

- PC/tablet subsystem implemented on WordPress/BuddyPress open social network platform.

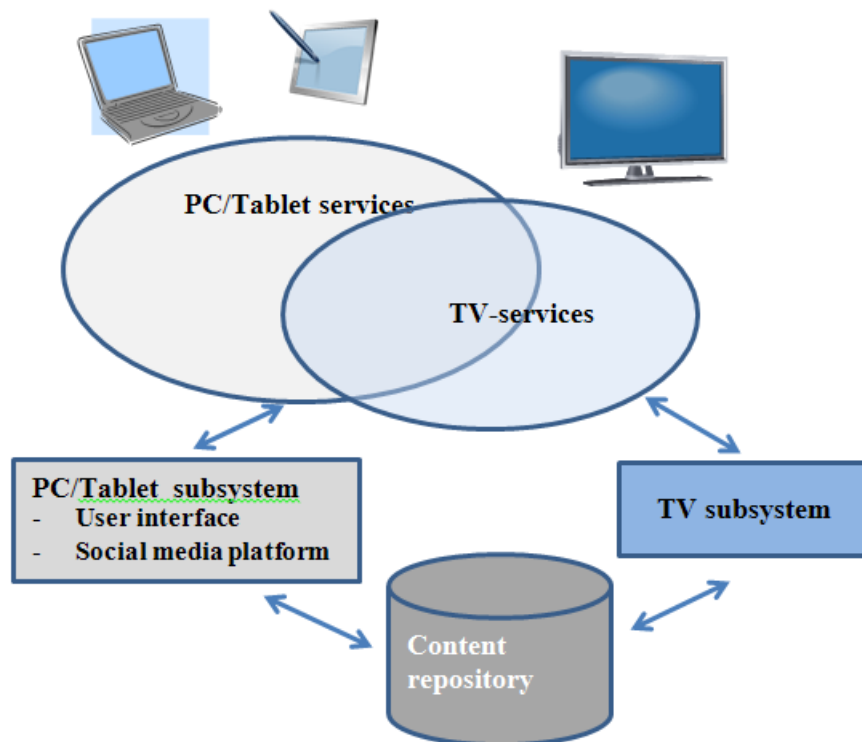- TV subsystem, implemented as a completely new software application.

Figure 1 SoMedAll pilot platform overview

The WordPress/BuddyPress platform database is used as the content store for the whole system. This makes possible to share the same content between the subsystems. These subsystems together form the integrated platform that enables building the social media services.

The build services can be used from PC/Tablet, TV environments or both of them. The content in the services is the same in both environments but the TV user interface is simpler and all features are not available.

The key concept of the service platform is a channel. Users access the service functionalities through channels. After registration to the service users get a default set of channels that provides a basic social media environment. Users can subscribe additional channels, or even create channels of their own.

Channels can be public to all service users, commercial or private, shared only by friends, family or other interest groups.

In the default channel for all users, the users get updates from people they know. It's a channel for communication with friends and relatives and finding new friends.

The optional channels, implemented in the pilot, provide services like they provide services
- News from the world around: Senior news, weather
- Network activities like gym, lectures, courses
- Entertainment, games, radio, TV –favourites
- Special groups and discussions over different themes
- Own content including text, links, pictures, videos

They will be defined in detail in deliverable D4.1. SoMedAll Service Concept Definition.

The system also features a calendar of events, showing user's own events and happenings and suggesting new events and activities from channels the user have joined. Furthermore, there is a place for "My important links". An easily accessible link lists of important services and data sources, added with own comments.

4   System documentation

4.1   System decomposition

Figure 1 shows the main components of the system. Both the Web/Tablet and TV subsystems include a collection of platform services that are used in building the end user applications (Web/Tablet platform and TV platform). Access to the shared database is through these platform services. The PC/Tablet platform services are built from the WordPress/BuddyPress components that are defined in D3.2 "Ready made components". TV subsystem platform consists of implemented components that imitate the WordPress/BuddyPress services used by the PC/Tablet subsystem. This makes possible the access to the shared database from the both subsystems in a uniform way.

The PC/Tablet subsystem can be used by any web browser. The TV subsystem is used through a TV Box that runs on Android operating system and uses SurFox browser.

More detailed definitions of the subsystems are in the following chapters.
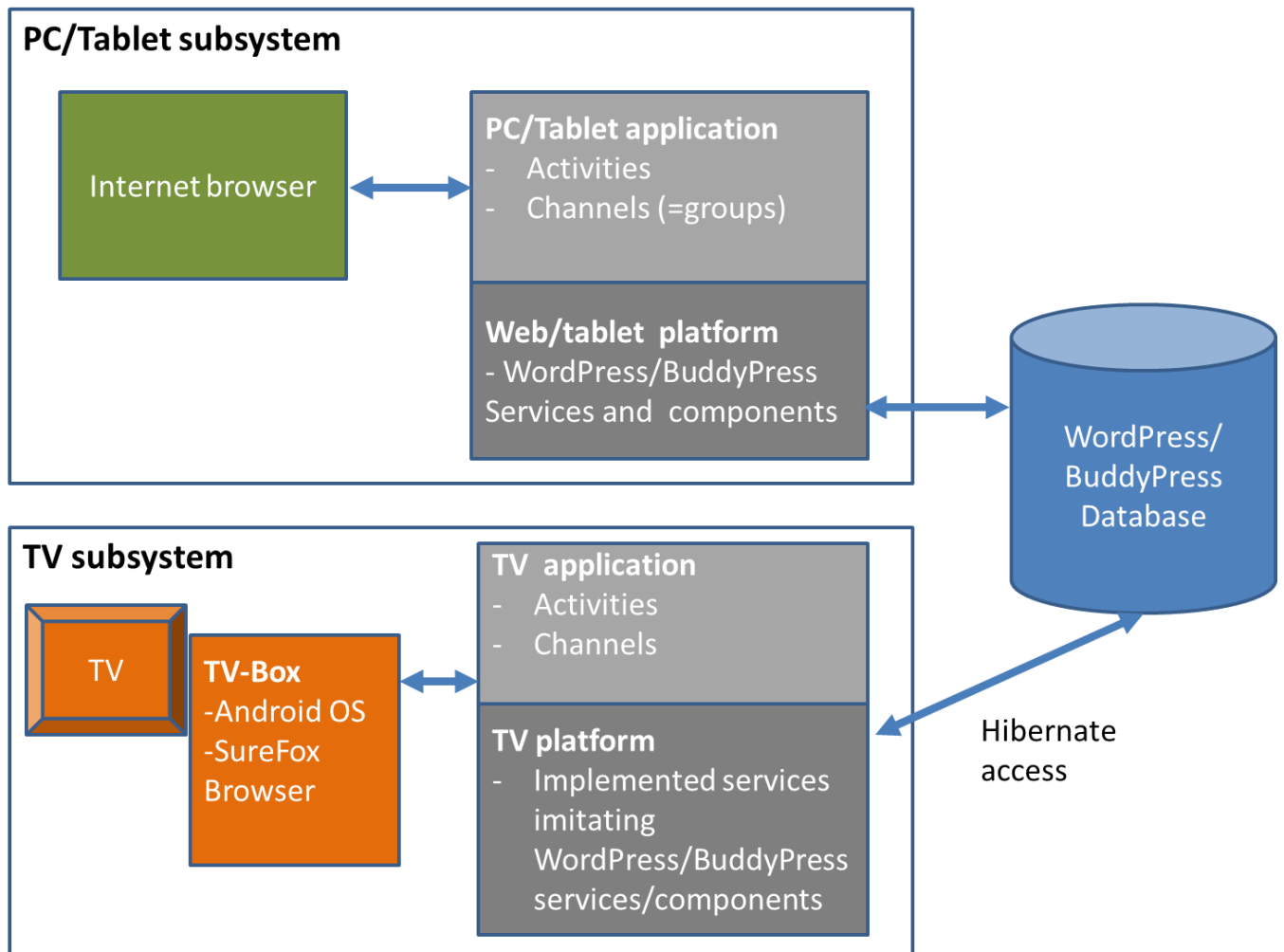
Figure 2 System components

4.2   PC/Tablet subsystem

The PC/Tablet subsystem is implemented using the WordPress/BuddyPress components that are defined on deliverable "3.2 Ready made components" as a base. A channel corresponds to a BuddyPress group extended by some additional features, such as getting content for the channel from an external RSS feed, and calendar functionality.

4.2.1 Activities

The activity page is where the user can follow that their friends have been up to. The user can see their friends' updates and can "like" and comment on them. The update can contain content you typically find on the web, like text, picture and video. Next to the update a small picture of the user is shown, to make it clear who sent it.

On the activity page the user can also see updates on the channels s/he is subscribe to. The updates from the channels can also be commented on the same way as updates from other users.

A central part of this page is also the ability for the user to share his own status updates (text/picture/video) with his friends, or to send a message on one of the channels he is subscribed to.

4.2.2 Channels

The channel page lists the user's channels, and is a place to find new channels to subscribe to. From here there is easy access to each channel's main page. On the channel's main page recent channel activity is shown, but one can also see who else is on the channel, and for instance take a look at the channel calendar. If the channel administrator has allowed it, users can also add events for the channel, and invite users to join the channel. Users can also opt to get channel updates directly to their e-mail.

Channels can be created by anyone. A basic channel can be used as a discussion group for some common interest. Channels can also use more advanced features and pull contents from an external RSS feed. Each channel have an administrator (the channel creator), and it can also have a number of moderators which can be assigned by the administrator.

4.3   TV subsystem MEDIASOFT

4.3.1 TV Platform

TV subsystem does not have a platform like BuddyPress or something similar. Instead, the TV platform is implemented in the project. The implementation uses java with following technologies: jsp, jQuery, javascript, hibernate, struts V.2, tiles, Tomcat and Apache. The platform connects to the BuddyPress database trough Hibernate.

On the TV platform the developed services are the same as those running on the PC/Tablet platform, imitating the WordPress/BuddyPress services. This means, that when a new service is developed for the TV platform, the service must be already implemented on WordPress/BuddyPress. New service implementation on the TV side includes testing the BuddyPress service, checking how it interacts with the database, and then implementing the same database access from the TV platform. This guarantees that BuddyPress will correctly display the data that was fed by the TV platform.

The TV application is in fact a web application which has a subset of the services from the PC/Tablet application, and the user interface is simplified.

So both platforms show the same data. Because we wanted to ensure that the same data is displayed correctly on both subsystems (PC/Tablet and TV), we need to have the same database. Two platforms like BuddyPress or something similar cannot be on the same database. That's why we decided to make our TV application (which is simpler than the PC/Tablet application) on the database of WordPress/ BuddyPress and make it from scratch. And that's why we can ensure that the data in the DB will be displayed correctly on both platforms (Pc/Tablet and TV).

4.3.2 User side

On the end user side an Android TV box is used.

(http://www.digicom.it/digisit/pdffiles.nsf/itdeppdfidx/mpeahd01/$file/mpeahd01.pdf),

It runs Android OS and uses SureFox browser, which is a kiosk browser. This application displays the TV web application on full screen.

4.3.3   Adding new services

To add a new service on the TV platform we must first test the same service on BuddyPress platform, to see how it works and how it interacts with the BuddyPress DB. Then we can develop the same service on the TV Platform. The users can not just click something and add new services.
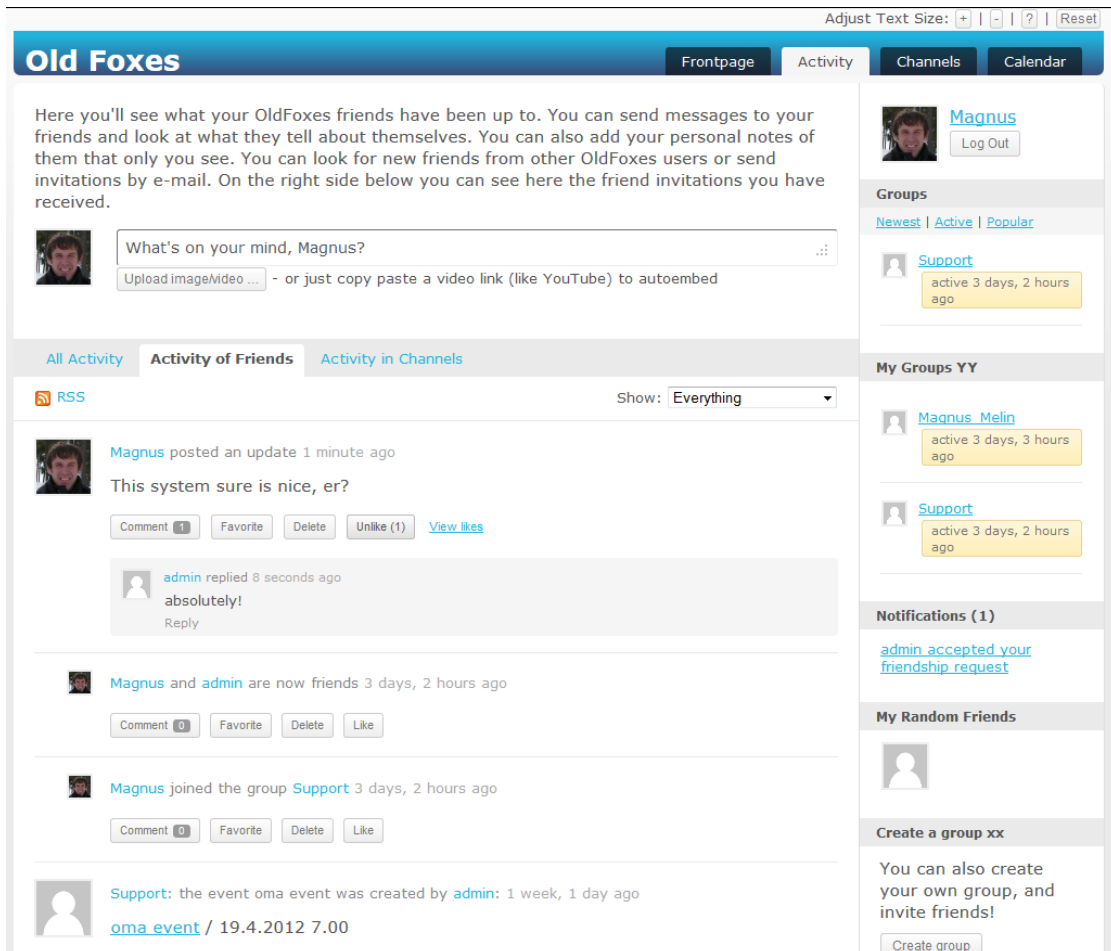
In fact the TV interface is a web application which the users use on the TV. The user cannot go on any other URL and she/he always knows where she/he is (cannot be lost in the infinite internet world). For this we use the "kiosk browser" (SureFox Kiosk Browser") which is made just for cases like this.

The TV application can be used with a simple web browser, by visiting:

http://mediabox.mediasoft.si/MediaBox

5   User Interface Samples

This chapter shows user interface examples, both on PC/Tablet and TV-environments
My friends, a default channel

Figure 3 - PC/Tablet environment Friends
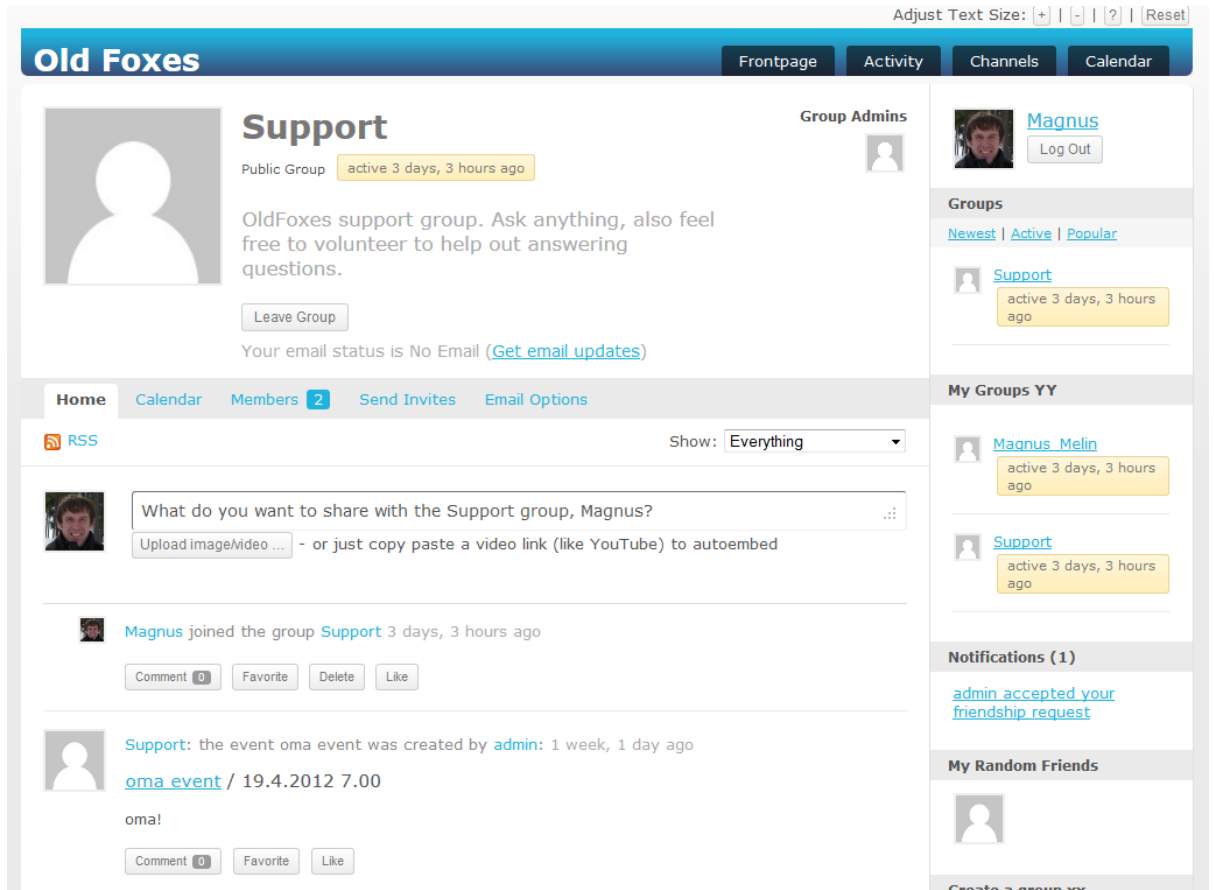
Figure 4 – TV Environment Friends
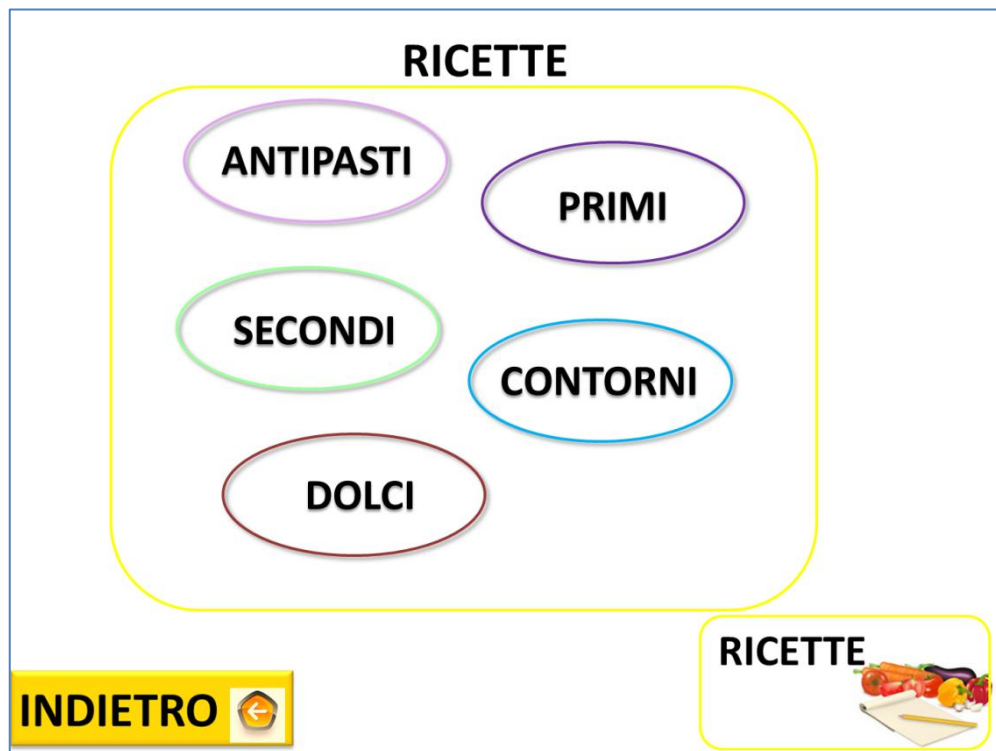

Figure 5 - PC/Tablet environment Support channel

Figure 6 - TV Environment Fenno-Italian cooking channel