April 2010 Newsletter

A novel architecture for modelling, virtualising and managing the energy consumption of household appliances

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AIM Project

AIM- A Novel Architecture for Modelling, Virtualising and Managing the Energy Consumption of Household Appliances- is a 24 months STREP Project of the ICT work Programme under the European Community's 7th Framework Programme (FP7).

AIM main objective is to foster a harmonised technology for profiling and managing the energy consumption of appliances at home. AIM introduces an energy monitoring and management mechanism in the home network, and provides a proper service creation environment to serve virtualisation of energy consumption, to offer users a number of standalone and operator services.

AIM finishes its activities in June 2010 and achievements.

AIM System Integration

AIM system was fully integrated in a virtual household, at France Telecom, in Grenoble, France. The household was used to carry out the first system trial using external users. Further trials using external users will be carried out in other two virtual households, which are at the moment being set up in Milano and Fabriano, Italy. The tests for these trials focused on usability issues. Another system trial, focused on the real performance of the system, is being carried out at the moment in real households, where the system was integrated with the appliances already existent in the houses, in Greece. This kind of trial will allow evaluating the performance of the system, comparing the consumptions of the households before and after the system installation.

AIM at the European Parliament in Strasbourg

AIM participated to the ICT21EE European thematic network Conference, at the European Parliament in Strasbourg, France, on the 11th of December 2009.

This participation brought to AIM the opportunity of presenting AIM System and networking with different players operating in many fields: local players and decision makers, communication experts, NGO managers, experts in the fields of Internet and new technologies, media managers, scientists, and all people involved in concrete projects and initiatives.

AIM at a High Level Event in Brussels

AIM participated with a stand demonstrating the EMD with two different demos: "WSN for Home Energy Saving" and "AIM Mobile Application", at the exhibition ICT4EE-High Level Event on ICT for Energy Efficiency, organised by The European Commission's Information Society and Media Directorate-General, in cooperation with the Spanish Presidency of the European Union, held in Brussels, Belgium, February 23-24, 2010.

The demo "WSN for Home Energy Saving" showed how the AIM automation system uses information provided by the wireless sensor network (WSN) to automatically control home

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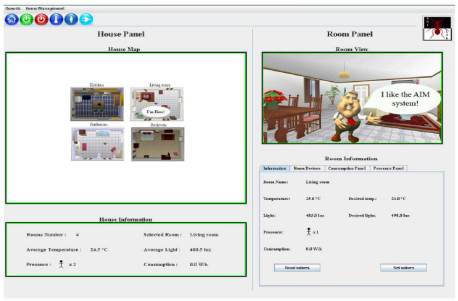
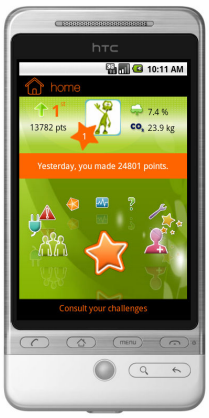
appliances (e.g. air conditioners, lighting systems, TV, WiFi routers) according to user habits. The system interface, called Home Virtualization Application (HVA), was used to demonstrate how the data can be shown through two main panels, one representing the house map and some house information and another one that is associated with the selected room and presents four panels: the information panel, showing information (temperature, light, user presence and power consumption) provided by sensors located in the selected room; the room devices panel, showing the virtualized devices located in the selected room and their status; the consumption panel, representing the consumption chart of the selected room for the current day; and the presence panel, representing the predicted presence profile and the daily presence profile of the selected room for the current day.



The demo "AIM Mobile Application" showed how the AIM automation system allows the user to be aware of the energy consumed at home, to control his/her appliances, and to receive alerts from the system. As an extra feature, the AIM mobile application introduces a new approach based on social networks to foster individual energy consumption reduction. The application, which runs on Android touch phone, is defined by a mix between "conventional" remote command and a game. The demo gave the opportunity to interact with the AIM mobile application user interface, which allows user to be aware of green energy and CO2 consumed and supports the following: AIM automation system remote configuration; appliances monitoring and control; alerts to be received in case of abnormal consumption; and social network management and automatic stimulation for energy consumption reduction.



The documents and information concerning AIM dissemination activities can be found at the project website.

Future Events

AIM will present its energy efficiency management's approach during EU-China Science and Technology Week, at World EXPO 2010 Shanghai, 14-19 June 2010.

AIM was invited by the European Commission to participate in the EU-China Science and Technology Week and to give a presentation during the session ICT for smart energy efficient cities. For AIM this participation is an opportunity not only to present its system but also to network with leading scientists, journalists, and representatives from industry, academia and government from the European Union and China.

AIM Consortium

AIM is a consortium of eleven partner organisations from seven different European countries, co-ordinated by Eurescom. The AIM project combines a good balance between area's industries, with the collaboration of Lantiq, Indesit and Philips; Operators, with the collaboration of France Telecom and Power Plus Communications; Universities or Institutions, with the collaboration of Eurescom, CEFRIEL and Polytechnic of Milan; and specialized systems developers, with the collaboration of Keletron, Doebelt and Bluechip Technologies.

For more information about AIM project, visit the project website: www.ict-aim.eu or send an e-mail to: info@ict-aim.eu