SAAPHO

Secure Active Ageing: Participation and Health for the Old

Secure Active Ageing: Participation And Health For The Old

SAAPHO aims to assist seniors to participate in the self-serve society preserving and enhancing independence and dignity through the application of innovative ICT-based solutions.

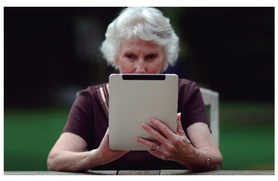
SAAPHO provides services towards the three axes recognized by active aging (WHO, 2001) policy:

Participation: empowering the social inclusion by mean of easy-to-use communication and participation services especially adapted to seniors.

Security: ensuring safety and well-being of seniors using ambient sensors (gas leak, CO escape, fire) and ambient parameters (temperature, humidity, luminosity).

Healthcare: supporting seniors to follow their medical routines and ensure their health condition by means of an expert system to provide good habits and best practices.

A New Approach in Assistive Technologies



Touchable Interface
Seniors interact with SAAPHO through a multi-touchable user interface that offers direct interaction experience without using mouse or keyboards.

Adaptive Interface
In SAAPHO, the user interface adapts its features to the needs of the users allowing a better technology acceptance to reduce initial barriers.

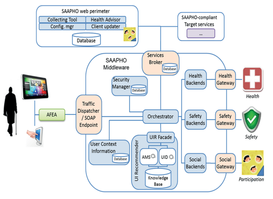
Assistive Surroundings
SAAPHO adds intelligence to user surroundings to facilitate the living conditions such us detection of environmental anomalies, intrusion or abnormal activity conditions.

User - Centered Design

From the very beginning, SAAPHO involves the direct participation of end users in the iterative design lifecycle of the system.

End users with different targeted profiles and nationalities (Spain, Slovenia) continuously validate and reinforce the system to satisfy expected needs and requirements of the users.

System Architecture



SAAPHO AAL Middleware

Decoupled architecture. The system is composed by independent but interoperable components. This enables a clear and understandable design with great performance and scalability.

Open system. SAAPHO middleware offers generic interfaces to be compatible with diverse communication protocols, services and sensors from the market.

User data privacy. The system design counts with secure transmission protocols and data cyphering to provide a secure and trustable system.

Low Cost. SAAPHO is aware about economy of its users thus system design avoids wired and propietary technologies for open source alternatives and wireless protocols (WiFi, Z-Wave, Bluetooth).

Market Oriented. The middleware is compatible with available EC products in the market.

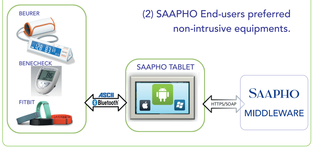
Healthcare Services

SAAPHO provides services to assist older people in activities related to the health:

- Health care and assistance services (medication assistance, healthy lifestyle interventions and healthcare management).
- Monitoring services (sensorial supervision and chronic diseases).
- SAAPHO Tablet allows to configure Health Sensor ecosystem.
- Middleware (via health gateway) provides historical data measurements, recommendations and alerts.

(1) Example of CE market devices interacting with SAAPHO tablet and middleware.

(2) SAAPHO End-users preferred non-intrusive equipments.

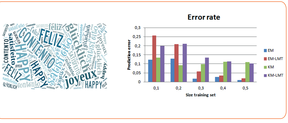


Participation Services

SAAPHO offers services to communicate and to be informed about friends and relatives.

- SAAPHO tablet shows social data coming from middleware.
- Middleware (via social gateway and services broker) interacts with e.g. Facebook, Gmail, Picasa and leisure services (e.g. games, radio or newspapers).

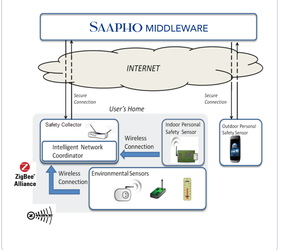
- Social gateway analyses data for personalising interfaces according to the mood or social activity of the user.



Security Services

SAAPHO controls the surrounding environment of their users.

- CE ambient sensors (gas leak, CO escape, fire) and ambient parameters (temperature, humidity, luminosity).
- Home wireless sensors communicate with a central unit (Collector) using e.g. Z-Wave, Zigbee.
- Smart security gateway to collect and analyse data for detection of emergencies and abnormal situations.



Credits

SAAPHO

AAL AMBIENT ASSISTED LIVING

European Commission

Project Coordinator : Barcelona Digital Technology Centre | **Coordinator :** Felip Miralles | Tel : +34 93 553 45 40 | fmiralles@bdigital.org | **Website :** www.saapho-aal.eu

The research leading to these results has received funding from MINETUR (Spain); VDI/VDE Innovation + Technik GmbH (Germany); Ministry of Higher Education, Science and Technology (Slovenia); Vinnova (Sweden) and the European Community AAL Joint Programme, SAAPHO project reference aal-2010-3-035

GOBIERNO DE ESPAÑA MINISTERIO DE INDUSTRIA, ENERGÍA Y TURISMO

Bundesministerium für Bildung und Forschung

VDI|VDE|IT

REPUBLIC OF SLOVENIA MINISTRY OF HIGHER EDUCATION, SCIENCE AND TECHNOLOGY

VINNOVA

BARCELONA TECHNOLOGY CENTRE bdigital TECNIO

Institut de l'Envelliment UAB

Technosite Grupo Fundosa

ZDUS

OSIJEK UNIVERSITY

Fraunhofer

skai

LIQUID