

eCAALYX Enhanced Complete Ambient Assisted Living Experiment



eCAALYX partners:



eCAALYX is founder by the European commission and the Ambient Assisted Living Joint Programme.

eCAALYX origin:

CAALYX- Complete Ambient Assisted Living Experiment

FP6 Project, IST, eInclusion . AAL for the Ageing Society

Start date: January 2007

Duration: 24 months

Budget: ~3 Million Euro

Grant: 1,85 Million Euro



Older people's **autonomy and self-confidence** can be greatly increased by wearing a light device that can measure vital signs, detect falls, and automatically raise an alert to their care centre in case of an emergency



CAALYX Complete Ambient Assisted Living Experiment

KICK-OFF MEETING
Valladolid, 15th-16th January 2007

The poster features a central illustration of a satellite in space connected by a vertical chain of blue semi-circles to a mobile phone. To the left, an elderly woman in a white lab coat is shown with a laptop. To the right, a woman is seated at a desk working on a laptop. The background is a blue sky with clouds. At the bottom, there is a row of logos for participating organizations: Telefonia, J-MEDICINA, COOS science, University of Plymouth, UNIVERSITY of LIMERICK, Guy's and St Thomas' NHS Foundation Trust, NHS, and COOSS marche.



CAALYX:



Elder

Mobile System



Caregivers



Caretaker Site



Home System

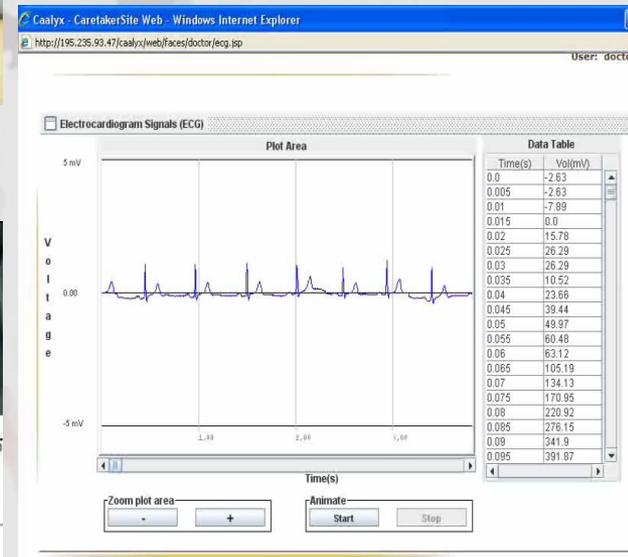
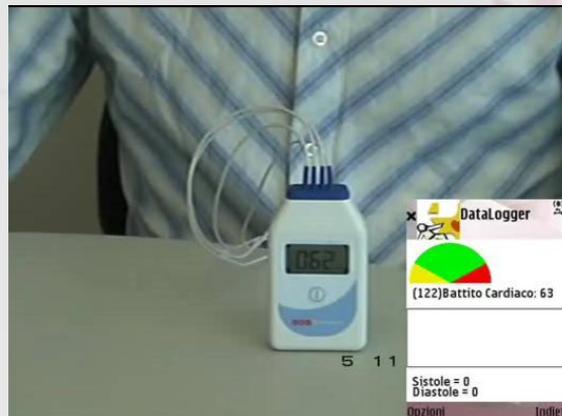
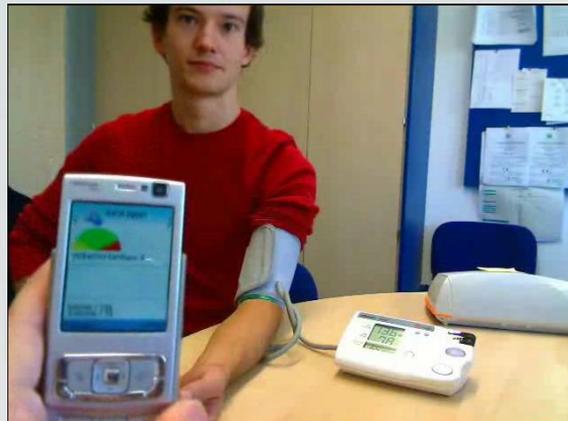


Relatives



CAALYX' system considered 3 main areas of contribution:

- The Roaming Monitoring System,
- The Home Monitoring System,
- The Central Care Service and Monitoring System.







CAALYX- **enhanced** Complete Ambient Assisted Living Experiment

AAL Call 1

Start date: 1 May 2009

Duration: 36 months

Budget: 4,2 Million Euro

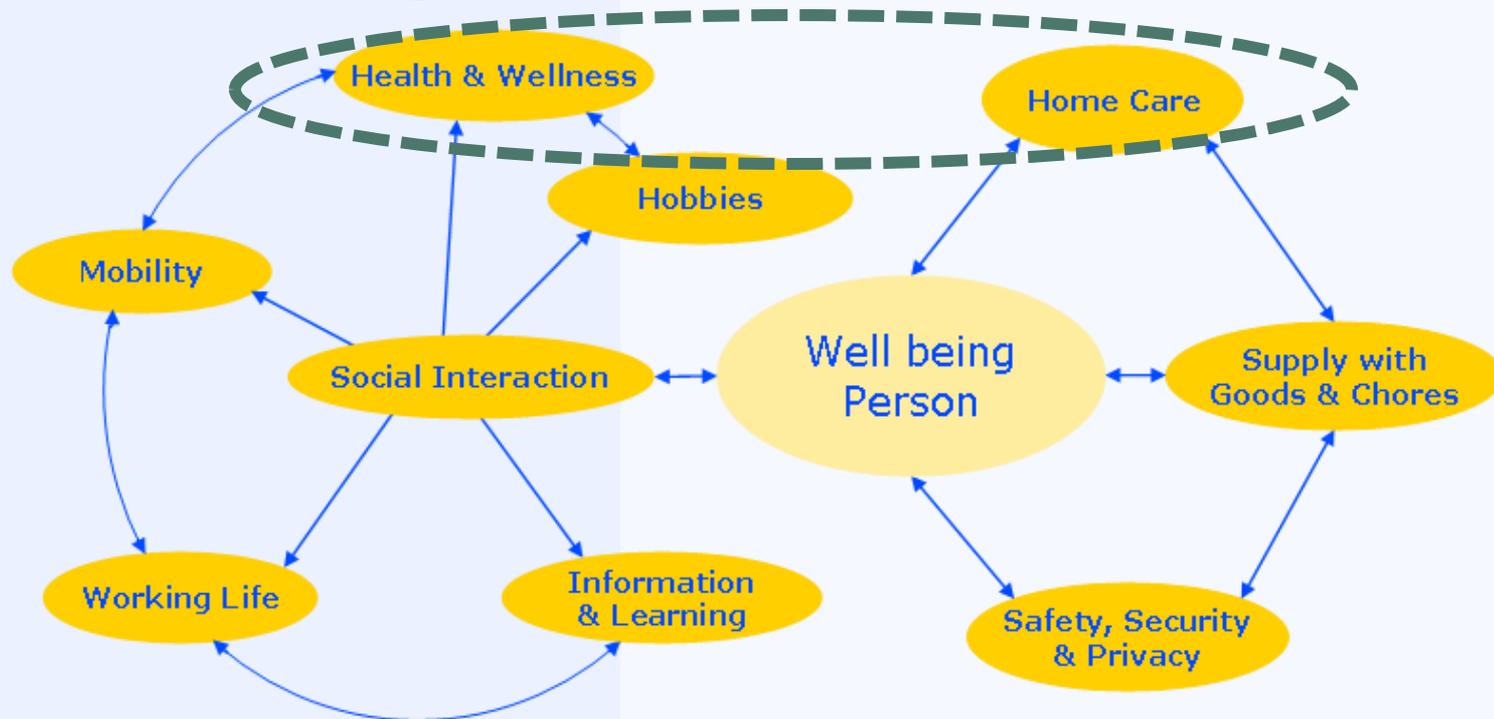
Grant: 2,6 Million Euro

*The Ambient Assisted Living Joint Programme
(art.169 of the UE treaty)*

Ambient Assisted Living

Surrounding

Person@Home





A chronic problem...

BBC [Low graphics](#) [Help](#) [Search](#)

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Last Updated: Wednesday, 20 June 2007, 05:45 GMT 06:45 UK Page last updated at 00:11 GMT, Tuesday, 13 January 2009

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NHS chief warns over chronic care

Fundamental change is necessary to deal with a rise in chronic conditions, the head of the NHS in Wales has warned.

A third of adults in Wales suffer from at least one chronic condition - those which cannot be cured - such as arthritis, diabetes or cystic fibrosis.



The number of people with chronic conditions is set to rise

Page last updated at 06:41 GMT, Thursday, 4 December 2008

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Chronic care need 'unsustainable'

The estimated 800,000 people in Wales with long-term illness put an "unsustainable" demand on hospitals, says the public finance watchdog.

“ Unless we find ways to prevent or treat these conditions, the strain on society and its infrastructure will reach breaking point ”

Chronically ill elderly 'to rise'

The UK's ageing population is set to cause a huge rise in the number of older people living with long-term illnesses, campaigners have said.



Help the Aged says that by 2025 there will be a big increase in the number of over-65s with heart disease, osteoporosis and dementia.

Help the Aged has estimated future levels of ill health among the elderly

It warned this could stretch the NHS to breaking point and called for more research into these conditions.

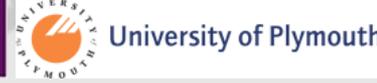
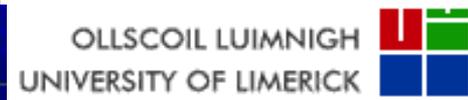
... and an effective solution!

eCAALYX will **develop a complete health management solution that will improve the quality of life for elderly patients with co-morbidity.** A **simple to use** electronic assessment process will identify the health risks of elderly patients, an education program will be developed that will promote the patients well being so they enjoy a **healthy independent lifestyle comfortably at home.** The system will **monitor the patient's condition and activities** throughout the day, giving **helpful reminders** such as when to contact their doctor for a consultation, when their favorite exercise program is available and **when they need to take their medication.**

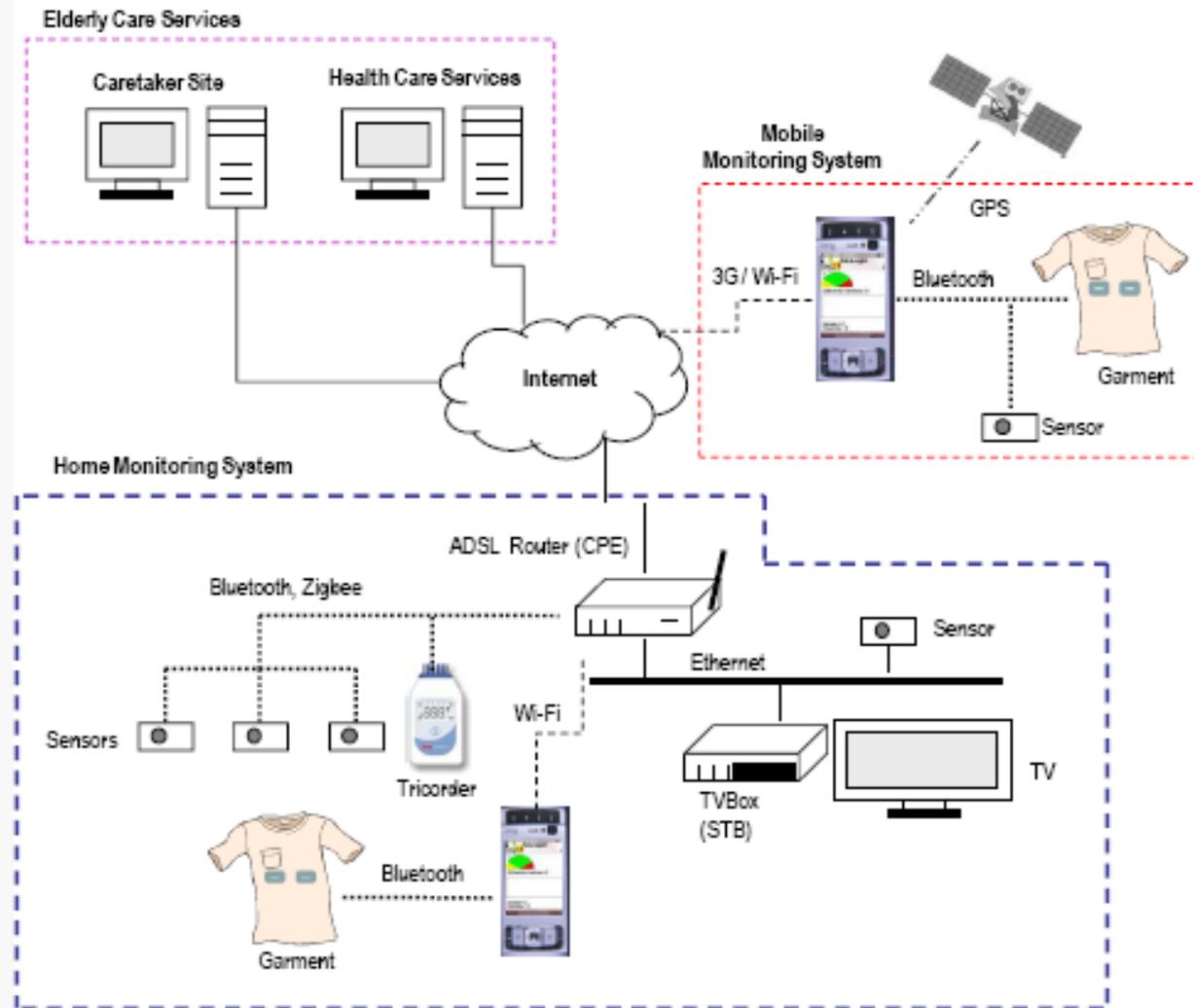




-  Cetemmsa
-  Telefónica I+D
-  INESC Porto
-  U Limerick
-  NUI Galway
-  Corscience
-  FHC Sant Antoni ABAT
-  Fraunhofer AICOS
-  TeleMedic Systems
-  EV Krankenhaus
-  Uo Plymouth Enterprise



eCAALYX
system:



Selected Highlights:

– **Tricorder**: combines the most relevant sensors for monitoring the prevalent chronic conditions and health risks.



Tricorder

– Smart garments:

Using conductive textile materials, a comfortable garment will be developed for improved user acceptance and will have conductive areas that can, for example, function as heart rate/ECG electrodes when in contact with the skin.



**SMART
TEXTILE**

Stimuli

Sensor

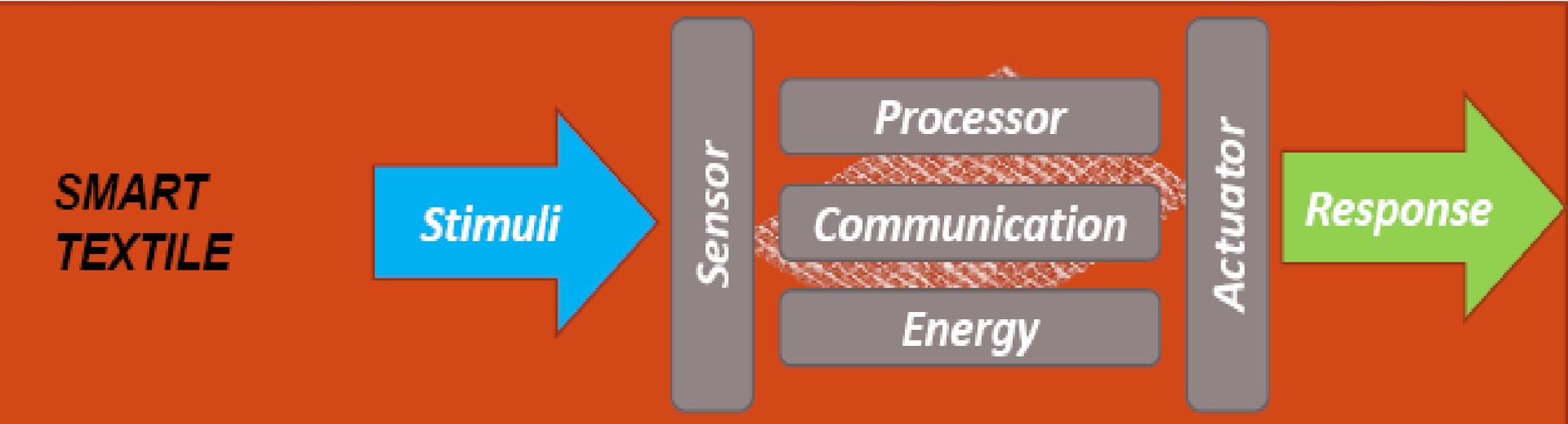
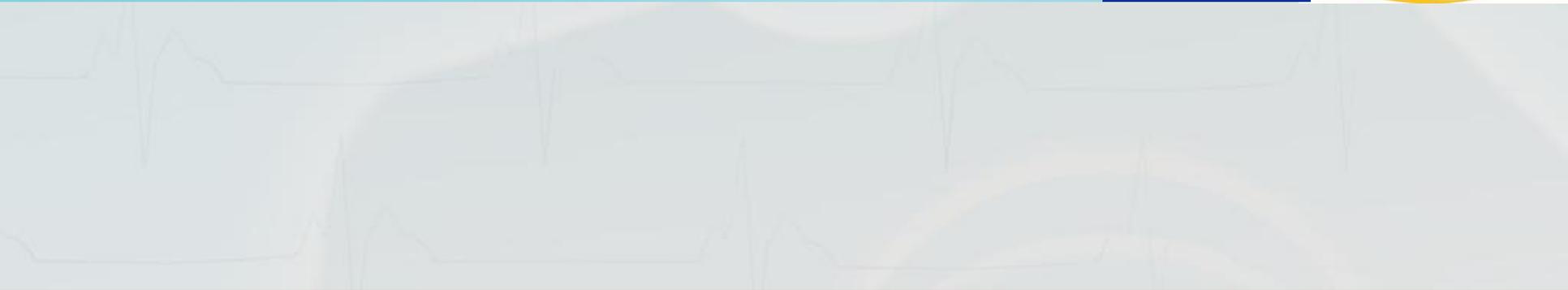
Processor

Communication

Energy

Actuator

Response



Electrode sensors

by Cetemmsa **What is a Smart Textile?**



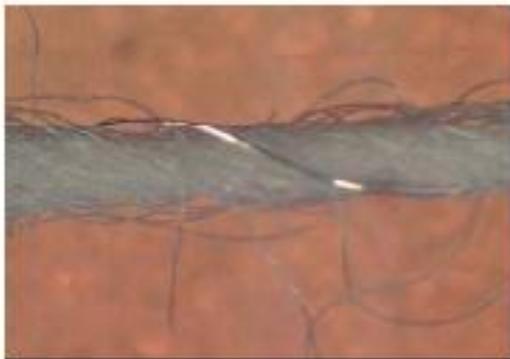
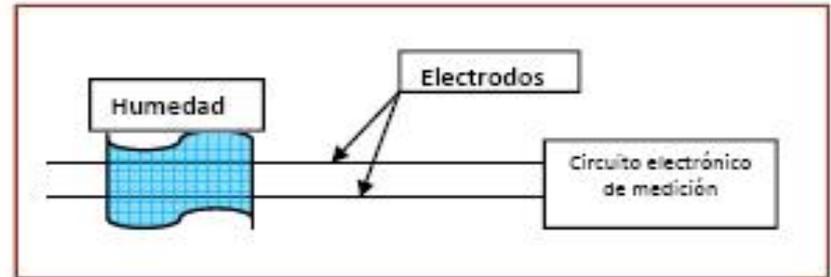
- Heart Rate Monitoring
- Electrocardiography
- Electromiography



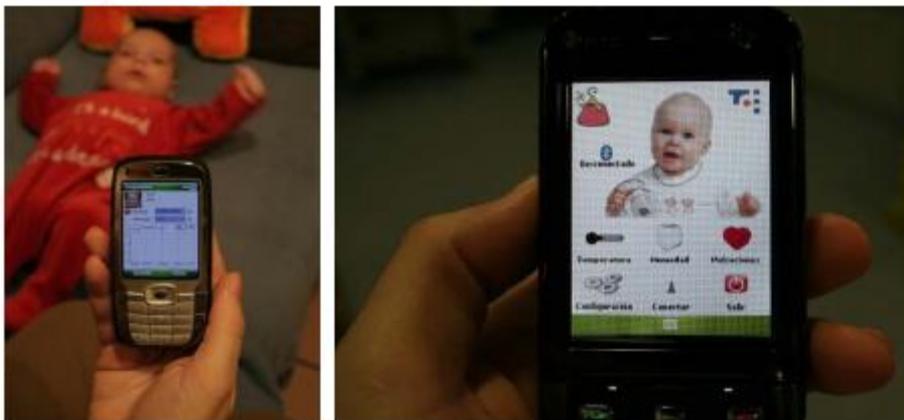
What is a Smart Textile?

by Cetemmsa

Temperature and humidity sensors



T°C and heart rate sensors integrated in a baby's pyjama, data transmission via bluetooth, all developed in Cetemmsa

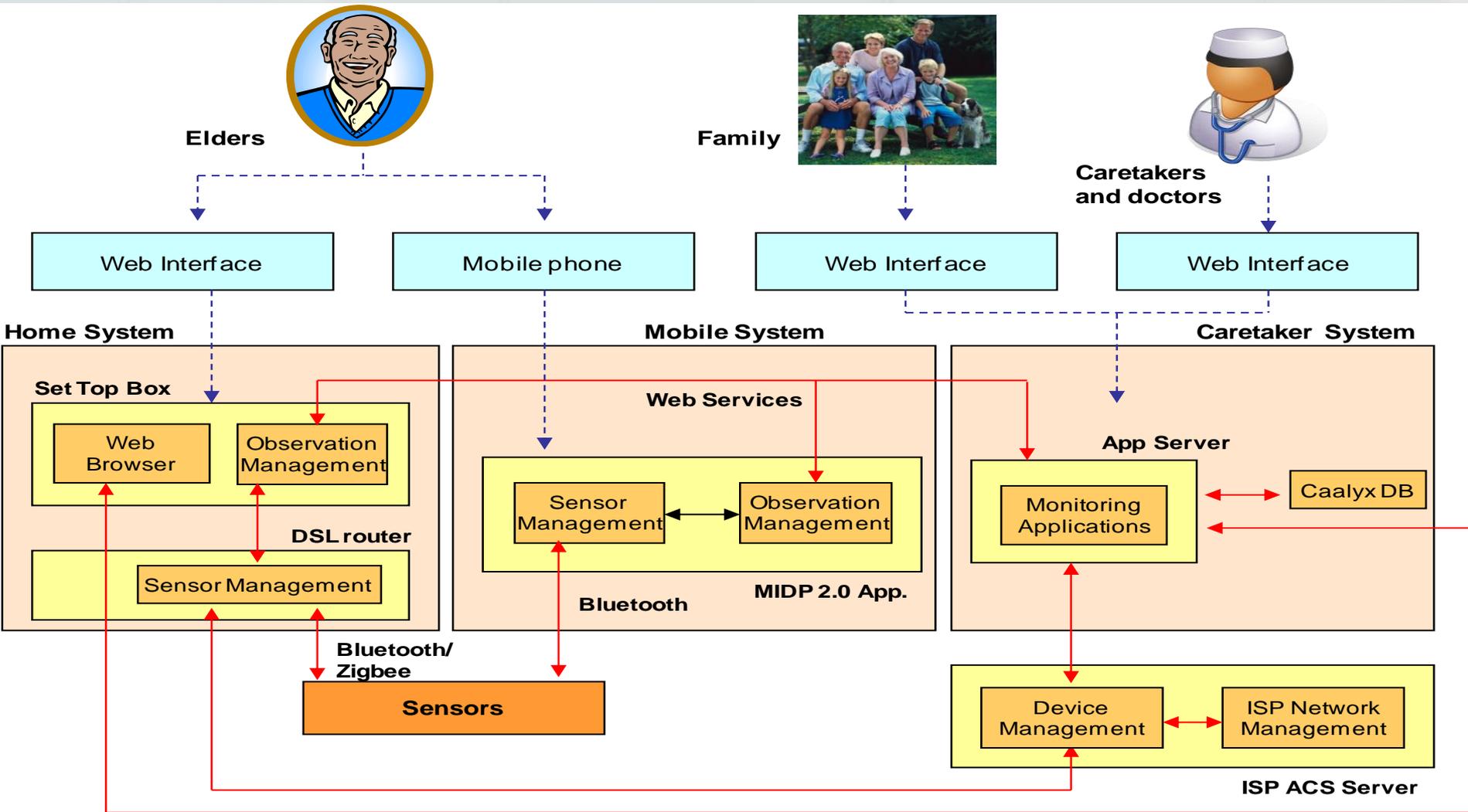


Pressure sensors

Capacitive

Resistive







<http://ecaalyx.org>