

D. ŠIMŠÍK, A. GALAJDOVÁ, D. SIMAN, M. ANDRÁŠOVÁ, R. BALOG. **Information technology supporting daily activities of seniors.** *Gerontechnology* 2012;11(2):306; doi:10.4017/gt.2012.11.02.440.00

**Purpose** Currently, ICT-products play an important role in improving the quality of life and matching user needs in the information society. The ICTs and embedded tools in public services improve users' autonomy, safety, self-realization, social inclusion by facilitating communication between family members, carers and persons with disabilities, etc. Our research team participated in the 6FP-project called MonAMI<sup>1</sup> devoted to the development of accessible and usable services for seniors that can be delivered in mainstream systems and platforms. **Method** The MonAMI technology platform was derived from standard technologies and has a unique architecture based on the Residential Gateway (RG-PC with touchscreen), OSGi-platform<sup>2</sup> (the dynamic module system and service platform for Java™), sensors and actuators dedicated to monitoring and control of the senior's households. Sensors and actuators use open technology networking such as wireless ZigBee combined with wired 1-wire nodes. MonAMI-system and services provide local and remote monitoring, local and remote actuating, detection and alarm notifications of potential dangerous situations. Monitoring services monitor various household's parameters. Data about room temperature, luminosity, motion detection, usage of electrical appliances are sent automatically to the RG and processed in real time. In case of unusual behavior detection, the alarm is triggered to alert the responsible person, e.g. the carer. Light, shutter, and electrical appliances actuators controlled automatically or by individual depending on setting are used to facilitate seniors' everyday life. **Results & Discussion** The technology and developed services were firstly tested in a laboratory environment with perspective users and their carers. Later, 20 participants living alone in their households were chosen for a three-month trial where different experimental testing was running under real conditions. We obtained information about usefulness of each service and device, advantages and deficiencies of the system, participant's feelings about new technologies and so on. The system has helped the majority of participants in terms of increased safety. Carers confirmed the unloading of the responsibility affected their daily life. Results were used for the design set-up of the new research project; at the same time we continued supporting the municipality by running MonAMI-services for the test group of seniors in the MonAMI-project after completion.

#### References

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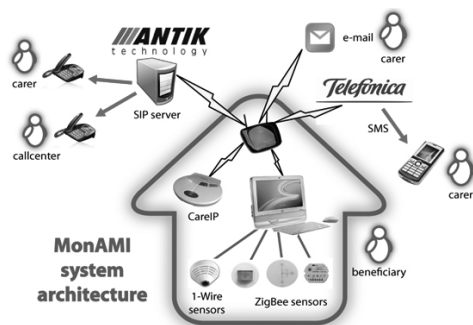


Figure 1. MonAMI system architecture