

ESL Cloud Solutions

A powerful cloud-based database engine.

Challenge

The internet of things has the potential to become a useful tool in helping people to continue to live in their own homes. By placing sensors in the home, and monitoring how and when items are used a pattern of activity can be established. Variation from this pattern can indicate when someone is ill or in need of support. Sensors come in many different formats and there are many protocols that are used to connect the sensor up to the network. The speed of change and development is increasing making backwards integration into a monitoring system challenging. There is also the issue of storing and protecting the data particularly if it is going to be used in health and personal care.

Solution

ESL Cloud Solutions have brought together an integrated service that addresses all of the issues raised. A gateway device, the EMap, has been developed that is flexible in configuration allowing any sensor using any of the existing commercial protocols to be connected through the EMap Gateway to a home based network. Furthermore, the data from these sensors is encrypted and stored. This allows post processing to take place, and processes and responses developed for situations that arise. Such information is invaluable to companies that supply care to people in their homes allowing them to develop individualised care packages.

HTH Contribution

The HTH allowed ESL to test their system in the Living Lab. A number of sensors were supplied by ESL as well as sensors developed by MSc students on the IoT course. The data collection and data storage from these sensors was demonstrated. Additionally using the data generated a "virtual" Living Lab was created using the Unity gaming engine. The virtual lab could show an individual's movement and activity over time, getting out of bed, moving to the bathroom, opening the fridge etc. It is the analysis of these patterns which would suggest to a carer that someone was behaving in a way that differed from their normal routine and were in need of additional support.

"It's been a great pleasure working with the entire HTH team and ESL looks forward to working with them to further leverage this tremendous asset to our mutual benefit and that of the surrounding community. The HTH offers the opportunity for SME's to collaborate with the academic world to explore funded projects, internships and introductions to local healthcare organisations (service providers, device manufacturers etc.) as well as partner institutions."

Russ Cole

Managing Director of *ESL Cloud Solutions*

esl-group.eu



HTH Contact: julie.maggs@uwe.ac.uk

