Master Thesis   2017-10-11
A context discovery platform for IoT

Context

The Internet of Things (IoT) envisions connecting billions of smart devices to the Internet. By 2025, there will be 50 to 100 billion devices connected to the Internet. The vast heterogeneity of devices in architecture, communication protocols and purpose, might lead to an inability to manage them. Multiple platforms exist that integrate these resources, either by the same brand (e.g. Philips Hue, Apple home kit) or only the same communication protocol (e.g. ZigBee, Zwave). Additionally, research works have been contacted for years to create a unified platform and significant steps have been made. However, the interesting part is to extract specifications and features that tend to characterise the devices themselves.

Scope of the Thesis

This thesis deals with the challenge of discovery and integration of heterogeneous sensory devices and the specification extraction. In order to fulfil this task, you should revise already contacted research works that are focused in resource discovery, description and information extraction. In addition, an implementation of such a platform has to be the outcome of the thesis, without excluding the possibility of achieving research steps towards the final goal that will also be considered as a successful completion of the thesis.

Requirements and Comments

If this thesis achieves good progress and outcome, its results willbe integrated in our research institute's IoT testbed.

If you are interested in this or similar theses, please contact Athanasios Tsitsipas either by mail or directly in his office.

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