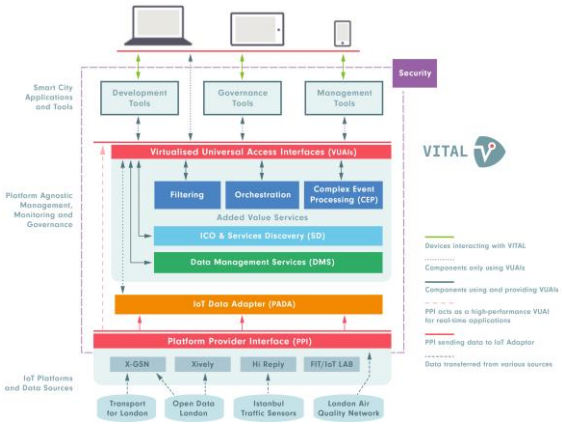
VITAL: Virtualized programmable InTerfAces for innovative cost-effective IoT depLoyments in smart cities

Program/Call Reference, Strategic Priority, Grant Agreement Number, Project Type

FP7-SMARTCITIES-2013(ICT), ICT-2013.1.4 - A reliable, smart and secure Internet of Things for Smart Cities, Grant agreement no: 608662, STREP Project

Project Summary

The main outcome of the VITAL project (http://vital-iot.eu/) was an operating systems for smart cities i.e. the VITAL-OS integrated framework, made of many open source components facilitating cost-efficient development, deployment and operation of Smart City applications. Two main use cases have been implemented and more than 10 IoT Systems (almost 3.000 sensors) deployed in 7 Cities have been integrated. The consortium has focused on the evaluation of the technical modules that have been produced during the project and on making those assets available as open source (https://github.com/VITALIoTOrg).



The VITAL-OS solution includes a Management toolkit with functionalities for managing diverse IoT systems and services in a unified way and ergonomic GUI, so facilitating city-wide planning and the monitoring of relevant interventions. It offers FCAPS (Fault, Configuration, Accounting, Performance and Security) functionalities, focusing specifically on smart cities and IoT requirements. Moreover, VITAL-OS offers added-value functionalities such as Complex Event Processing (CEP), filtering, orchestrating and other data processing functionality, which enable smart IoT scenarios, without the need to deal with the low-level details of the underlying systems. VUAIs are the abstract interfaces residing at the top layer of the architecture that enable developers to access VITAL-OS's added value functionality. VITAL-OS provides a set of visual tools for developing and deploying applications with reduced effort and cost. These tools allow developers to access and compose the various capabilities of the VITAL-OS platform for rapid development of back-end IoT services over the VITAL-OS platform, in order to implement smart city applications.

Project Starting Date and Duration / Total Cost – Total EU Contribution

1/09/2013, 36 months / 4.192.411 € - 2.695.962 €

AIT's Role / Principal Investigator / AIT's Funding

Project Partner/ Prof. John Soldatos (jsol@ait.gr) / 309.633 €

Consortium Partners

National University of Ireland (NUIG), INRIA, SANTER REPLY SPA, Singularlogic SA., Atos Spain, S.A., IMAGES & Co Ltd, Camden Town Limited, İSTANBUL Technical University, Istanbul Metropolitan Municipality