Building the Environment for the Things as a Service

BETaaS helps you start building applications for the future by helping developers and vendors overcome the limitations of current M2M applications platforms with its own horizontal Things as a Service approach. The technologies developed by BETaaS are now available as open source at BETaaS.com. Along with the first release of the technology toolkit, BETaaS Platform and Tools (simulator & things adapters), we have created a set of webinars (BETaaS.eu/webinars.html) that will teach you the benefits of using BETaaS horizontal Things as a Service approach and how you can start using our tools to easily start creating IoT Applications.

BETaaS has also established collaboration with UDOO.org boards as the perfect companion to create a full approach hardware + software + tools to create IoT applications and services.

The proliferation of commercial solutions made of networked objects is the first concrete evidence of the Internet of Things (IoT) getting real. There are plenty of solutions available today. However, there are no real examples that can merely go beyond the specific purpose for which they were designed for. The scenario is a constellation of vertical systems made of applications and physical objects designed to work in isolation through an ad-hoc infrastructure. Isolation, however, is not the only drawback, the lack of a common software framework, makes software development for IoT a very complex task. Without a common interface, applications have to adapt to the interfaces of each technology with great limitations on software portability and maintenance.

In BETaaS project, a European research project partially founded under the 7th Framework Programme, we are creating a fertile soil for this change through the definition of a horizontal platform designed for the future IoT.

The platform aims at providing a unified framework for the development of Machine-to-Machine (M2M) applications, through a service-oriented interface, a "Things as a Service" model exposed to developers as unified interface for accessing heterogeneous smart objects, regardless of their technology.

The framework has been built over a distributed architecture made of a local-cloud of gateways that allows applications to access things regardless of their physical location. The platform is designed with a layered architecture to guarantee flexibility and expandability to allow, respectively, easy integration of existing vertical systems and development of custom services (extended services) installed in the platform by applications. BETaaS platform provides a uniform interface and services to map content (information) with things (resources) in a context-aware fashion. With BETaaS, the deployment of services for the execution of applications will be dynamic and will take into account the computational resources of the low-end physical devices used.

To learn more about BETaaS please visit us at BETaaS.com or at our research project website BETaaS.eu.