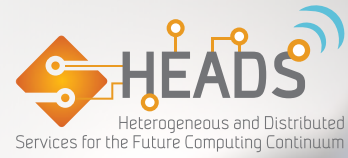


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HEADS, an innovative ICT approach
leveraging the future computing continuum



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Overview

The HEADS project leverages Model-Driven Software Engineering and generative programming techniques to provide a new integrated software engineering approach which enables the advanced exploitation of the full range of diversity and specificity of the future computing continuum. The main result is an open-source Integrated Development Environment (IDE) that will include a Domain Specific Modeling Language and a methodology for the specification, validation, deployment and evolution of services distributed across the continuum.

Project Objective

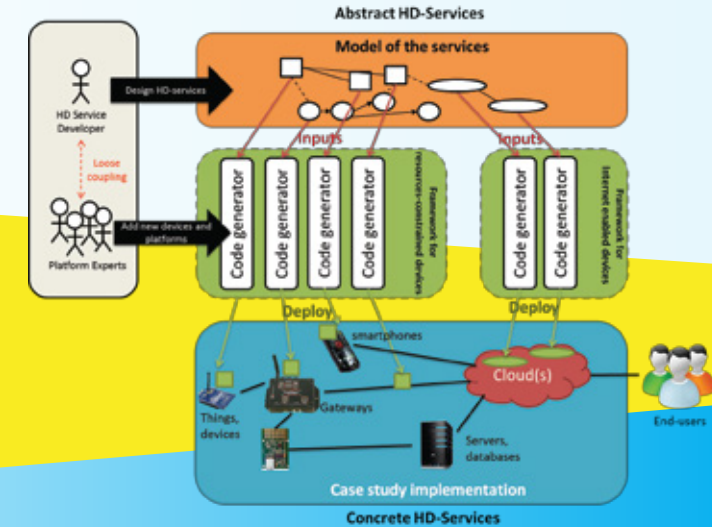
HEADS will enable efficient exploitation of the broad diversity of the future computing continuum for rapid service innovation of advanced services, by providing service developers with new agile tool supported software engineering methods enabling short innovation cycles.

Industrial use cases

The consortium will validate HEADS technical results through the operation of two industrial use cases: one describing a smart-home system for helping elderly people to stay home as long as possible by controlling equipment that are normally present in smart homes, and the other describing a media system for event management & editorial planning, content creation, ingestion & aggregation, production monitoring, archiving, and distribution / publishing through multiple channels.

Technical Approach

HEADS approach to the development of a Heterogeneous and Distributed service (HD-service) takes a leap over current practices while leveraging the latest advances in software engineering and providing the flexibility for being extended and tailored to individual and future needs.



Expected Impact

The HEADS IDE will be developed and released as open-source and extensible by a plugin mechanism and a framework to add support for additional platforms. Thus, HEADS will make HD-Service development affordable and accessible to a wide range of industry domains. The project especially targets SMEs which typically do not have in-house knowledge of all the target platforms they would like to exploit within the future computing continuum. It also targets sectors for which a rapid innovation and release cycle is the key. Moreover, the

emergence of the future computing continuum will impact end user requirements and transform business markets, this again require companies to evolve existing products and services to fully exploit this continuum. A main impact of HEADS will be through provision of exploitable results to perform these tasks in an efficient and cost effective way.