CELTIC
Telecommunication Solutions

Advanced SERVice Architecture and Service DelivERY Environment

SERVERY researches, prototypes and evaluates an open European service marketplace, allowing the creation and delivery of multimedia services to mobile and fixed broadband users through the combination of the abundant and flexible Internet world with the stable and trustworthy Telco environment.

Main focus

The driving vision of SERVERY relates to the creation of a new platform at work in everyday life, where a vast number of services — created by professionals as well as by the end-users themselves — proliferate in an environment where agreements and rules are kept and enforced, help people in their life, and generate revenue for the participants in a fair share.

The key SERVERY project objectives are:

1.   Combine the best of Telco and Internet worlds by enabling the convergence between NGN-IMS, Web and Media service technologies.

2.   Provide an intelligent business environment called the service marketplace to create new business opportunities, models and roles, and integrate the business-modelling component in service delivery and deployment paradigm and into the revenue sharing implementation.

3.   Bring to the end-users advanced end-to-end solutions for service creation that are easy to use (e.g. natural-language based), and enable instant, context-aware and personalized service creation

Provide intelligent service enablers that allow for the creation and orchestration of enhanced services in personal, dynamic and multi-domain environments;

Build-up a generalised flexible architecture and middleware infrastructure, allowing dynamic, intelligent and contextual service discovery / deployment brokering / composition, and business relationship management. The flexibility of the SERVERY platform environment will specifically support the demands from Telcos, SMEs and third-party service developers and providers of open service platforms.

Approach

SERVERY is based on the concept of marketplaces, which are places where business opportunities can be realized by using and composing resources while enforcing defined business agreements through a Business Engine. SERVERY marketplaces are realized through service delivery platforms, which enable deployment, hosting, and creation of resources like, e.g., service, content, and enablers.
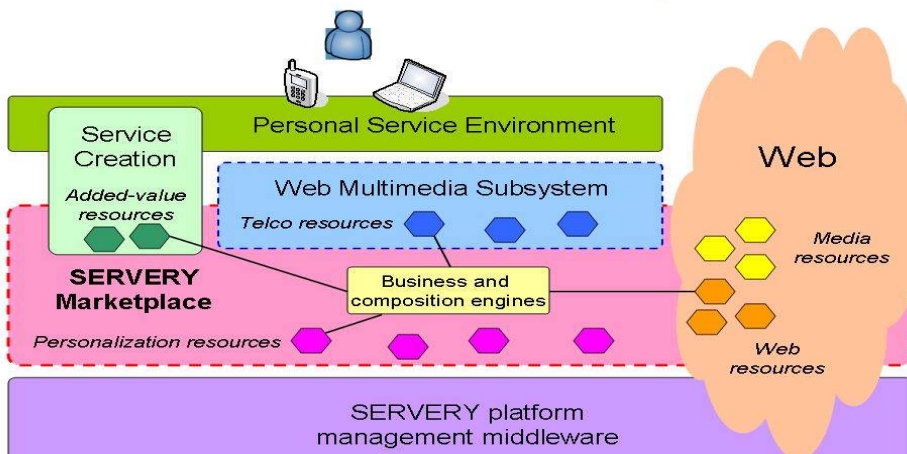
SERVERY

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SERVERY concepts

For this, SERVERY will design powerful mechanisms for semantically describing, publishing and discovering resources hosted on the marketplace, as well as defining the middleware components supporting service level agreements (SLAs), quality of service (QoS), and real-time aspects of the platform operation. It will also define a set of 'personalization' enablers provided by the platform operator in order to add value to existing or new services/resources.

The access to the marketplace is done through the Personal Service Environment (PSE) which connects to the platform via the Web Multimedia Subsystem (WMS). The PSE concept offers a single environment where a user can create new services (e.g. by combining or personalizing other published services), upload new content, and expose those services and content in a controlled way to other users, whereas WMS provides the common set of control capabilities, media capabilities and service delivery capabilities that are required to allow access to and delivery of converged web, media and Telco services such as IMS.

A strong focus will be put on the service creation and composition aspects, proposing integrated service creation tools for both end-users and professional developers, covering both functional and non-functional aspects to enforce novel business models related to the marketplace.

Finally, the SERVERY platform will be trialed through a live community-based experimentation.

Main results

The project aims at the following main results :

- ♦ Full definition of the SERVERY Marketplace for services, enabling easy service creation, publication to the market, discovery and combination for end-users and professionals, as well as related novel business models.

- ♦ Integrated SERVERY service creation solution in the form of an intuitive, graphical integrated service creation environment implementation, associated to a design- and run-time composition engine.

- ♦ Specification and prototypical implementation of the Web Multimedia Subsystem extending NGN/IMS and exposing its functionalities on the marketplace.

- ♦ Specification and prototype of the Personal Service Environment as a user interface to the platform.

- ♦ Specification, implementation and provisioning of composable personalization enablers on the marketplace covering aspects like context-awareness, identity, user profile and community.

- ♦ Specification, implementation and provisioning of support functions for the marketplace management, including the SERVERY business manage-

ment engine, dynamic real-time infrastructure, and QoS management middleware to be used in composition scenarios

- ♦ Live experimentation of the integrated SERVERY platform with a real community of users

Impact

The current state of the **telecommunication market** is characterized by a situation in which there are very few actors that own the infrastructure, these actors being the only one in contact with the end-user, their customers. Service Providers have to negotiate with them many technological, economical and strategic aspects. This is a serious impediment to the business sustainability and growth of the service provider sector, which hence remains much fragmented and populated by a small number of players.

On the other hand, if we look at the **Internet environment**, it is undisputed that its openness has enabled the development of a vast amount of services by dramatically lowering the cost to create and distribute them.

Yet some serious problems remain, especially for the small and tiny players: each service provider has to be involved in several roles at the same time. They have to cover, e.g., the roles of content creator, marketers, advertisers, distributors, billing department and after sale service.

To overcome these issues, SERVERY proposes to define a model in which such a cooperation is effective and profitable for every actor involved. This is the domain in which SERVERY will strive to produce an impact, by enabling an innovative marketplace or service ecosystem in which services will be easily advertised, discovered and combined.

The openness and distributed nature of the SERVERY model will potentially generate a new wave of innovative services by enabling the technology and business capabilities of service providers, still providing benefits from all the actors in the value network, including operators, infrastructure vendors, content providers and others.

About Celtic

Celtic is a European research and development programme, designed to strengthen Europe's competitiveness in telecommunications through short and medium term collaborative R&D projects. Celtic is currently the only European R&D programme fully dedicated to end-to-end telecommunication solutions.

Timeframe: 8 years, from 2004 to 2011

Clusterbudget: in the range of 1 billion euro, shared between governments and private participants

Participants: small, medium and large companies from telecommunications industry, universities, research institutes, and local authorities from all 35 Eureka countries.

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