

## Multimedia Communication Service

The goal of the Multimedia Communication Service (MaCS) project was to develop and experiment with the new generation of **Broadband Telephony Services** for the residential market. By integrating different platforms, terminals and services, MaCS intended to cover the real needs of residential customers, allowing more complete and flexible interpersonal communications.

### Main focus

The project targeted the development of an **interoperable** solution for multimedia conversational services, focusing on end-to-end delivery to the user.

The project handled three main aspects:

**Network:** in parallel to the growing demand of multimedia services, the different actors involved in the model have to face very important issues as quality of service

guaranty, resource management, security, privacy, regulations constraints or nomadism which allows a user to activate a service wherever he is, etc.

**Terminals:** simple and affordable multimedia terminals are needed to address the residential market. They must interoperate with the **Next Generation Networks (NGN)** architecture and protocols in order to offer innovative services with the adequate level and sufficient ergonomics. Terminals will be **SIP** (Session Initiation Protocol) based.

**Services:** the target is to build a platform which allows seamless usage of new increased services addressing the needs of interpersonal communities, as **Videotelephony**, **Presence and Reachability Management**, **Local and Network Address Book**, **Multimedia Identity Presentation** or Multimedia Messaging.

**MaCS**

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Project ID: CP1-030

Start Date: 1 July 2004

Completion date: 30 October 2006

### Partners

Ericsson Spain, Spain

France Telecom R&D, France

Nokia, Finland

Nokia France, France

Philips, France

Telefónica I+D, Spain

T-Systems, Germany

Universidad de Valladolid, Spain

### Co-ordinator

Daniel Marec

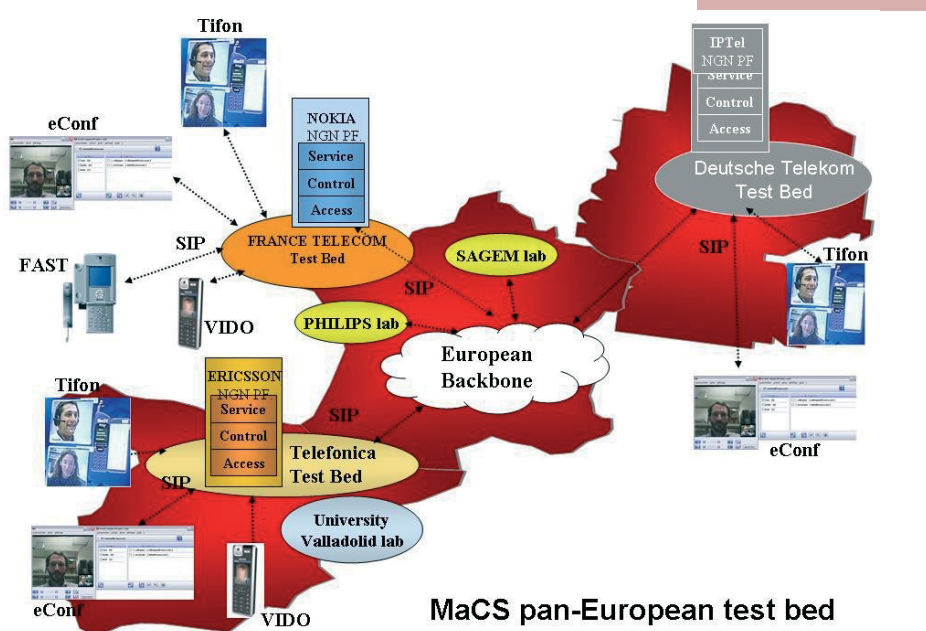
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### Project web site

[www.celtic-initiative.org/projects/MACS](http://www.celtic-initiative.org/projects/MACS)



## Approach

The main goal of the project was to contribute to the roll-out of real-time multimedia communication services for the residential market from in 2005 to 2007. To achieve this, the MaCS consortium devised several actions to be performed into two separate releases.

The first one, dedicated to environment and test bed set-up, included:

- Architecture, SIP profile and services specifications

- Market study

- Set-up of the IMS pan-European test bed

- Development and qualification of SIP/IMS terminals with video telephony service: Philips VIDO (Hardphone), e-Conf (Softphone) and Tifon (Softphone)

- Qualification with video-call service interoperability

The second one was dedicated to innovative services developments and their valuation:

- Multimedia Identity Presentation: Originating Identity Presentation (OIP) including images and Originating Identity Presentation Restriction (OIR)

- PRS: Presence management & Reachability Service

- Multimedia Messaging

- Local / Network Address Book synchronization (interacting with Multimedia Identity Presentation and PRS)

- Media Management

- Multi-users Management

- Multi-devices Management

## Achieved results

The idea to re-use the 3GPP IMS standard for the fixed network was raised by ETSI TISPAN shortly before the start date of MaCS. At that time, no practical knowledge on fixed IMS was available, as only few operators were working on this technology. At the end of the project, not only ETSI TISPAN has adopted IMS but also major telecom manufacturers such as Alcatel, Nokia, Ericsson, and others.

The work carried out within MaCS allowed companies involved in the project to gain very deep knowledge on the IMS platform as well as to be able to show in presentations and demos the real operation of a pan European multi-operator IMS platform for the fixed net.

Main results:

- Successful set up of an **interoperable pan-European IMS platform** and deployment of advanced services such as Multimedia Identity Presentation, Presence and Reachability and Network Address Book

- Nokia and Ericsson have increased their expertise as world leaders on the IMS market

- Philips VIDO is **the first commercial SIP/IMS terminal** in the European Market

- Softphones from Telefonica (Tifon) and FranceTelecom (eConf) compatible with the advanced services developed

- Contributions to ESTI Specialist Task Force 291:

- o MaCS referenced in ETSI Technical Report 181 003 (Service capabilities, requirements and strategic direction for NGN services)

- o MaCS inputs to ETSI Technical Report 181 004 (NGN generic capabilities and their use to develop services)

- o MaCS inputs to ETSI Technical Report 181 015 (Requirements for originating and terminating party multimedia information presentation and restriction)

- MaCS common API study (for easy development of interoperable services)

## Impact

MaCS offers new multimedia communication services which allow end-user mobility and internetworking between different terminals and platforms.

IMS (IP Multimedia Subsystem) is an international standard that defines a platform with multi-service capabilities and multiple network access. At the start of MaCS only few operators were working on fixed IMS, so only theoretical knowledge was available. As MaCS went on, IMS became standardized at TISPAN and spread among main Telco operators and vendors as the NGN architecture for leveraging the convergence between fixed and mobile networks. MaCS served as a validation test for the oncoming deployment of NGN based on IMS/SIP.

The development of both soft and hard IMS/SIP qualified terminals faces up to now the lack of standards allowing vendors to avoid interoperability problems when interconnecting the terminals to the network and service platforms.

Special emphasis put in interoperability will allow the easy deployment and commercialization of multimedia communication and innovative services operating in multi-operator networks.

## About CELTIC

Celtic is a European research and development programme, established as Eureka cluster, 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. Launched in November 2003, Celtic (Cooperation for a sustained European Leadership in Telecommunications) was founded and has been supported by major European telecommunication players, both vendors and operators. Celtic fills the gap between public R&D programmes not specifically focused on telecoms and short-term R&D efforts by the telecoms industry

**Timeframe:** 8 years, from 2004 to 2011

**Total budget:** in the range of 1 billion euro, shared between governments and private participants

**Participants:** companies from the telecommunications industry (small, medium and large), universities, research institutes, and local authorities from all 35 Eureka countries may participate in Celtic projects.

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