STREP

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MOBISERVE

New mobile services at big events using DVB-H broadcast and wireless networks

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Table of Contents

1 Main Objectives

The general goal of MOBISERVE is:

New technology and new user interaction concepts of a few newly defined rich-media service scenarios for mobile terminals based on a DVB-H mobile broadcast infrastructure and additional wireless networks. The rich-media application and added value convergent technology are intended for enhancing the consumer experience at big (sports) events (Olympics) and will enable sharing this experience at home. The consumer perception of the new service will be evaluated in a test trial at the Olympics in Beijing, China.

To reach the general goal the project has the following objectives;

- **Definition of value added rich-media services**
  A limited number of new service scenarios of interactive rich-media services will be defined for user evaluation.
- **A generic Interactive Service Application Platform (ISAP)**
  A new generic service application platform capable of easily defining the rich-media services will be designed and evaluated. Requirements will be derived from the interactive convergent services.
- **Analysis of the service by a trial during Olympics**
  The user value of the service will be assessed by a trial during the Olympic games with around 20-40 users belonging to a particular focus group. The trial will be friendly[1] because optimal technical conditions will be used. The definition of the focus group will be carried out at the beginning of the project. A focus group represents a target group of real users and will provide very valuable feedback on the service and the related performance of the DVB-H system.
- **New features in the rich-media application and terminal middleware**
  The service will use a number of data sources. The main ones considered by MOBISERVE are DVB-H broadcast for video and data. GSM/GPRS will be used for feedback. In some cases WLAN is available as well. New open API's will be defined and tested to cope with the multiple sources. The results will be put forward in relevant standardisation bodies.
- **Extension of the infrastructure with a WLAN channel**
  The availability of WLAN enables new options for rich-media services. The service could be provided using WLAN as a main channel. A mechanism of service relay from DVB-H to WLAN will be investigated and corresponding adaptation of head-end and the terminal software.
- **New design of the mobile terminal for coexistence**
  During the trial we will have both the GSM and DVB-H channel active. The frequencies of those channels are very close and interference is disturbing the robust performance in the phone. A partial solution can be found by additional the filtering and optimized antenna design. However, intelligent methods will be investigated to improve coexistence even more. The results will be input for the MBRAI (Mobile and Portable DVB-T/H radio Access Interface specification) of DVB-H.
- **Enhanced user experience at the home**
  To show your friends the highlights of the Olympic games at home a special rich-media scenario will be defined. Personal content at home will be shown by using the home

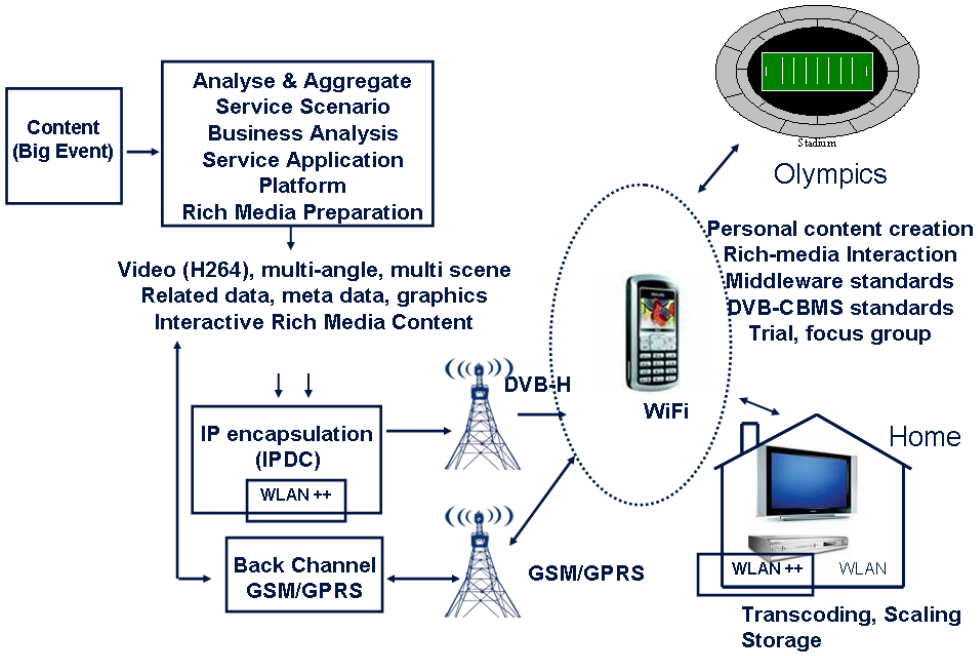
[1] The term friendly trial is used for a trial where the conditions are optimised by friendly choices of location (good coverage) and user (educated a bit).

network. Adaptation of H264 mobile (LCD resolution typical 240*320) content to the Standard Definition TV will be investigated and evaluated.

- **Contribute to (Chinese) standards**
  The innovative solutions evaluated in MOBISERVE will be input for standardisation in the appropriate bodies. Several of the partners are represented in those bodies to take care. Our partners will liaison with Chinese regulatory and standardization bodies.

2 Technical Approach

The starting point will be new user scenarios related to big events like the Olympic Games in Beijing in 2008. Two user scenarios will be defined at the games itself. Moreover, one scenario how to “relive” the games at home using the home cinema and another one related to the experience of the service at a hotspot through service relay.



MOBISERVE addresses the innovations needed for the “second phase” of the TV on Mobile services. How to create multiple highly interactive services which combine information different sources (DVB-H, GSM/GPRS, UMTS, WiFi). MOBISERVE addresses the interactive use of rich-media in a world of converging information. MOBISERVE provides a unique opportunity to wirelessly navigate across content at home and outside home, for a coherent user experience delivered through broadcast and connected networks.
For such a “second phase” systems not all technical ingredients are known and available. Also the user perception and perceived value is not clear. That is why MOBISERVE will address a selected number of topics to help enabling the innovative next phase.

3 Key Issues

MOBISERVE will access the value and user feedback regarding the services by a trial during the Olympics. Key results are expected in the field of:

1) New interactive rich-media service scenarios for public visiting sports events.
2) Enabled by an innovative interactive service application platform.
3) The value of the service as tested with a user focus group and a trial at Olympics Beijing.
4) An adaptation to software, API's and related standards to enable convergent services in mobile phones originating from various sources (e.g. DVB-H, GPRS, WLAN).
5) Technology to deal with (electronic) coexistence of multiple channels in a terminal.
6) Technical options to "relive" the sports events experience at home and through a service relay at a hotspot.

4 Expected Impact

In MOBISERVE the concept of using a combination of DVB-T/H and other networks to provide the delivery framework for rich-media interactive services, opens the door to a new range of applications, especially for a new category of service providers who address mobile, innovative customers in the first instance. Provided that the results of the project can be fed into the relevant standardisation bodies, within the appropriate timeframe, there is an excellent opportunity for project participants to exploit the knowledge base they will have built in the course of the project in several steps. Several products will be defined to serve different applications. The development of such a product/product range during a pre-competitive phase, and in close collaboration with such knowledgeable participants, could become a relevant contribution to the improvement of the telecommunications and information infrastructure in Europe.

MOBISERVE benefits all actors in the value chain. The definition of standard strategies for the delivery of multimedia services, not only for the telecommunications network but also for the broadcast networks, and the definition of interfaces in a combined infrastructure that consists of elements from the telecom and the broadcast world, will give network operators and service providers the freedom to cooperate without having to develop the 'glue' for the combination networks again and again for every special case. A standardised solution for interoperation in this field allows the participants in the value chain to focus their attention on the development of services that benefit the user, rather than finding technical solutions for special cases.

MOBISERVE will influence the applicability of DVB standards (i.e. IPDC over DVB-H) not only in Europe, but also in China. This impact, of a very great importance for the European industry, will be followed for example by focusing the Chinese participation on field trials/tests scheduled to promote the use of DVB-H in connection with the Digital Olympics in Beijing in 2008 and on contributing to the development of truly global open standards for DVB.

MOBISERVE enables also low cost/affordable rich-media support, which will facilitate the market development in China and Europe MOBISERVE will potentially strengthen the qualities and the revenues of the services provided by mobile operators and broadcasters.