

# OPTIMIX project



Presentation for 2<sup>nd</sup> FP7 Networked  
Media concertation meeting  
St Malo, France, October 2008

# Progress in OPTIMIX



- OPTIMIX facts (reminder)
  - study of innovative solutions enabling enhanced video streaming in a point to multi-point context for an IP based wireless heterogeneous system, based on cross layer adaptation of the whole transmission chain
  - The goal: increasing PQoS for the end user in a point to multi-point multimedia transmission context

# Progress in OPTIMIX



## ■ End-user survey

- In order to obtain more information from the general public, which is viewed as the typical end user for application of OPTIMIX technical research results, a survey on end-user requirements for mobile video streaming has been carried out
  - 20 questions :
    - user category (representativity issue),
    - financial aspects,
    - current usage of video (in mobility or not)
    - Different proposed use cases of interest for the user
  - 250 survey forms were filled by people of mostly six different European countries

# Progress in OPTIMIX



- Main conclusions on the end-user survey
  - Confirmation of the trend of interest in video streaming and video activities appearing with the expansion of high-speed access and dedicated platforms on the Internet.
  - While people remain still unwilling to increase significantly their money expense in exchange of video services in mobility, there is a clear acceptance of a modicum increase of Internet/phone fares to obtain services
  - mass audience is wishing for more than thumb size displays as nowadays standard cell phones and would favour average size displays like new appearing 3G/3G+ phones (e.g. Apple iPhone), but is also asking for possible specific adaptation of the content on such reduced size screens, to ensure that the viewing experience is good.

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- Main conclusions on the end-user survey
  - The most attractive scenarios, from the survey candidates are the following:
    - Visiophony, either low settings or its professional extensions “Virtual meetings”
    - Access to video downloads (either video on demand or free streaming sites)
    - IPTV on the move (either mobile personal television or access to Internet television channels)
    - Location based services, for educational, day-to-day life or cultural life enhancement and Medical applications (health care)
    - Security professional applications

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- Major requirements selected for OPTIMIX
  - The five main features selected in light of literature and end-user survey are the following:
    - (1) scalability feature for different users with different capabilities (SVC, UEP...)
    - (2) delay: high delay acceptable, low delay constraints
    - (3) mobility of the receiver (IP mobility, HIP mobility, horizontal handover, vertical handover, node/session/per-application mobility)
    - (4) security feature for IPSec, Comsec ...
    - (5) high bit rate scenarios /low bit rate scenarios
  - In terms of requirements, it is also chosen that **ONLY ONE** wireless hop is considered.

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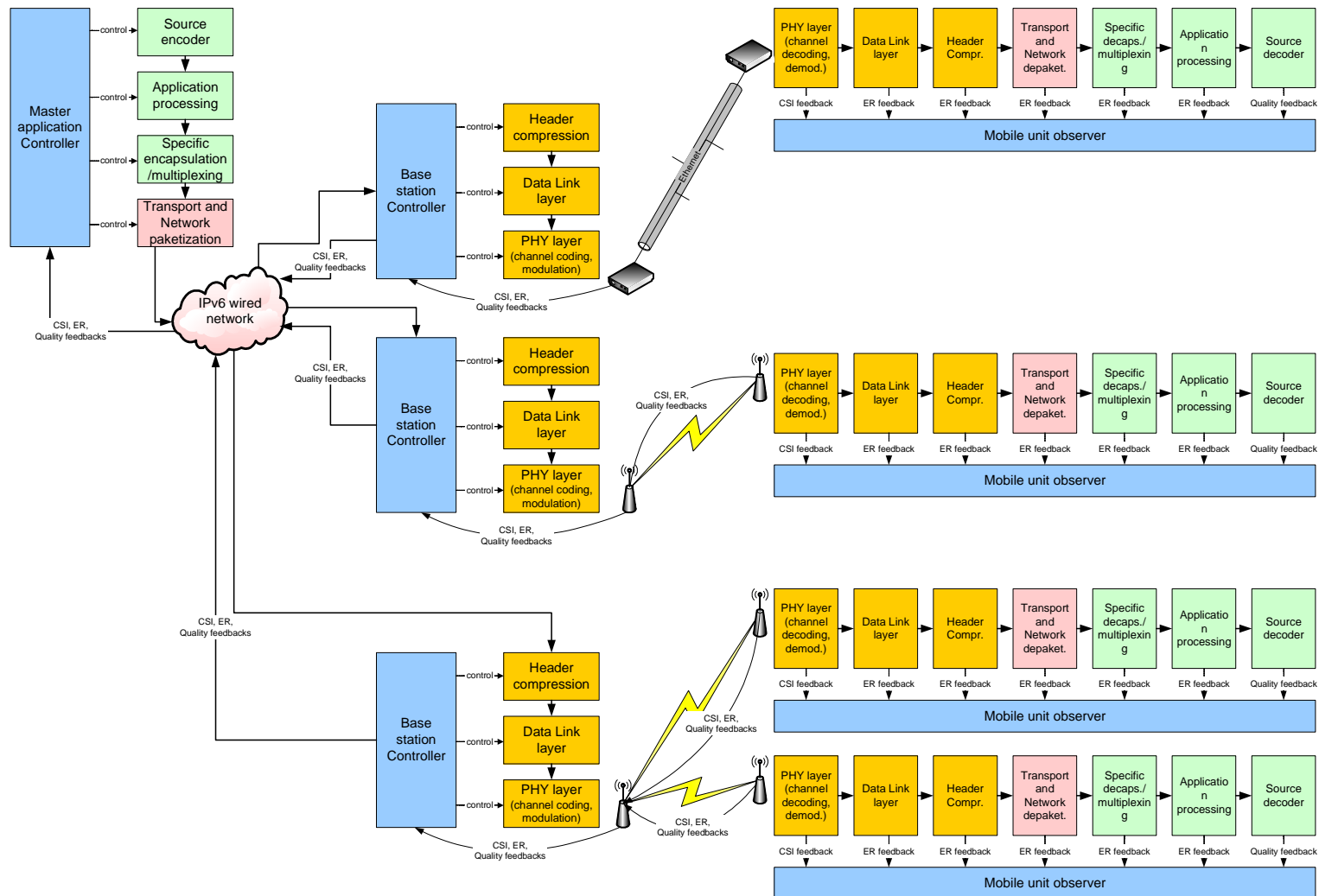


- Scenarios proposed within OPTIMIX
  - Scenario A: Streaming videostreams
    - 1, 3, 4 (optional)
  - Scenario B: Medical applications (High quality)
    - 4, 5, 2 (optional)
  - Scenario C: e-learning, tv, virtual meetings, real time constraints
    - 2, 3, 4 (optional)
  - Scenario D: security applications, crisis, emergency
    - 1, 3, 4, 2 (optional)

# Progress in OPTIMIX



## Chain functional specification



# Some communications



- Publications in conference proceedings
  - C. Lamy-Bergot, G. Panza, A. Rotondi and L. Fratta, "Analysis and Optimization of a JSCC/D System on 4G Networks", Proceedings of the IEEE International Symposium on Spread Spectrum Techniques and Applications (ISSSTA'08), Bologna, Italy, August 2008.
  - G. Panza, G. Bigini, M. Prudente and P. Belotti, "Addressing robust Next-Generation Networks", 13th International Telecommunications Network Strategy and Planning Symposium (NETWORKS'2008), Budapest, Hungary, Oct. 2008.
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Do not hesitate to visit  
<http://www.ict-optimix.eu>



Questions ? → [contact@ict-optimix.eu](mailto:contact@ict-optimix.eu)