

OPTIMIX project



Presentation for 2nd FP7 Networked
Media concertation meeting
St Malo, France, October 2008

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- 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

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■ 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

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- 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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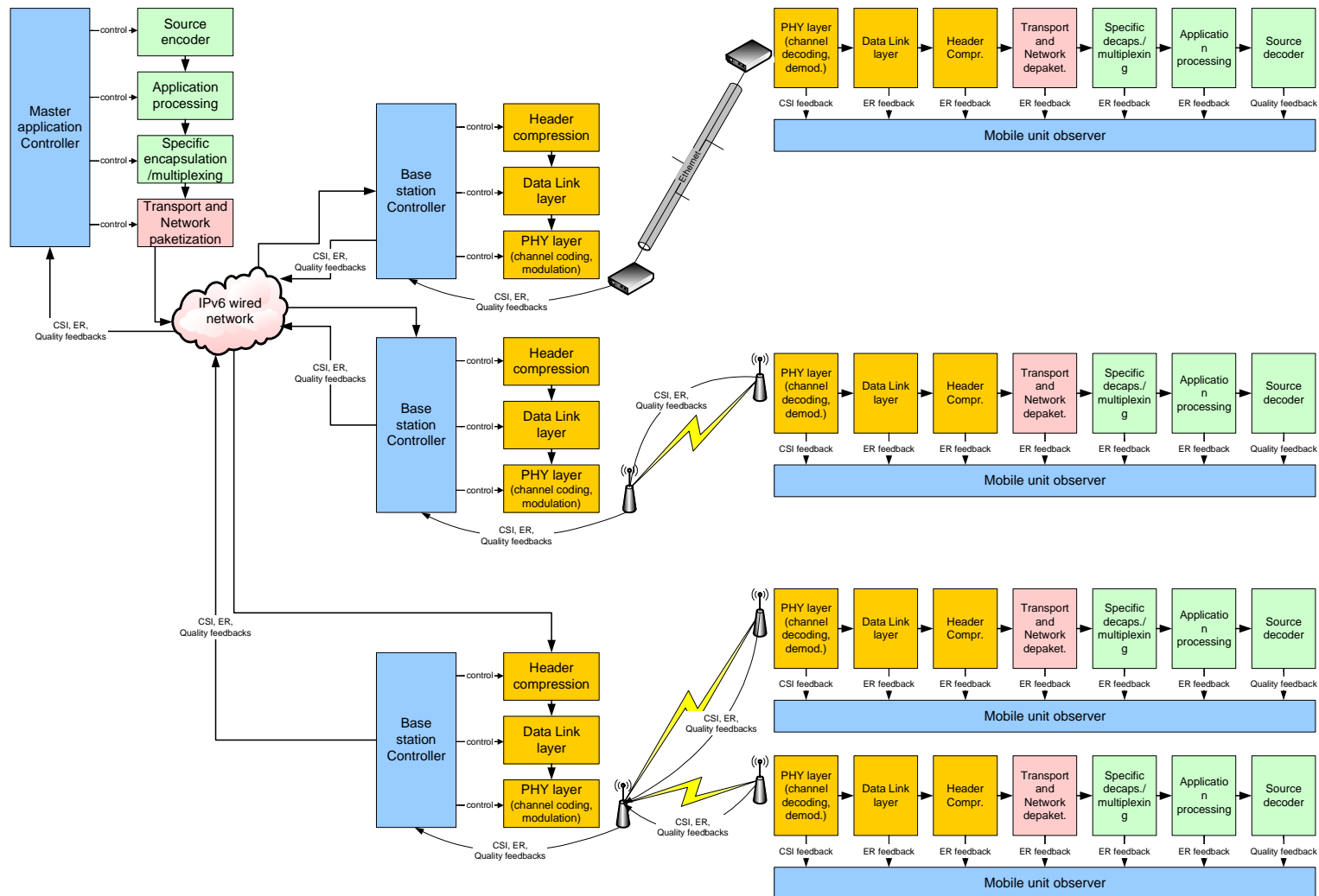


- Scenarios proposed within OPTIMIX
 - Scenario A: Streaming videostreams
 - 1, 3, 4 (optional)
 - Scenario B: Medical applications (High quality)
 - 4, 5, 2 (optional)
 - Scenario C: e-learning, tv, virtual meetings, real time constraints
 - 2, 3, 4 (optional)
 - Scenario D: security applications, crisis,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

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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