



Service convergence over adaptive multilink networks

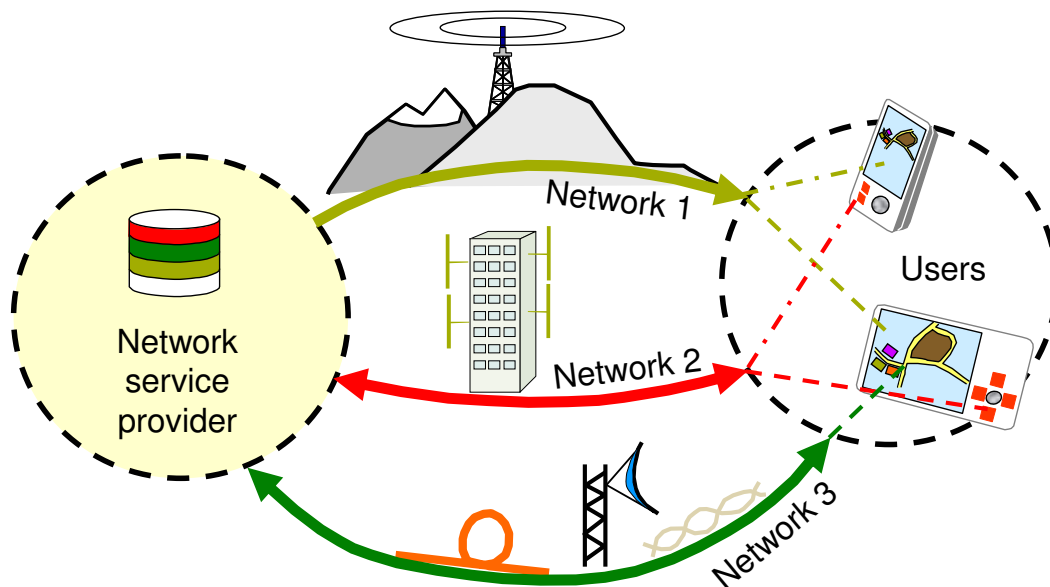
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Multilink scenario



Develop and pilot new convergent network architectures and multimedia services for increased capacity and coverage



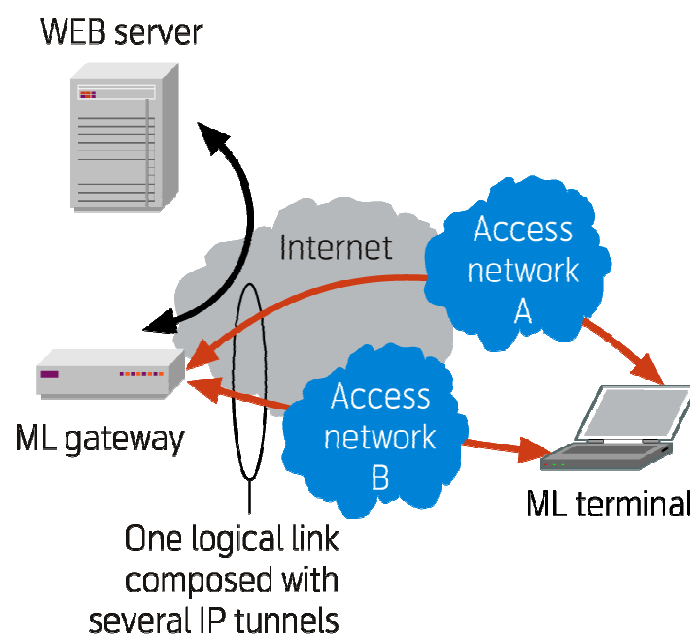
Adaptive multilink network benefits

- Improved services with existing network infrastructure
- Better broadband services at lower cost
- Larger broadband coverage with less investments
- New types of services can be created and provided
- Include broadcast networks in the fixed-mobile convergence development
- Take advantage and facilitate for recent trends in networking, such as convergence, mesh topologies, and peer-to-peer



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Multilink gateway model - example



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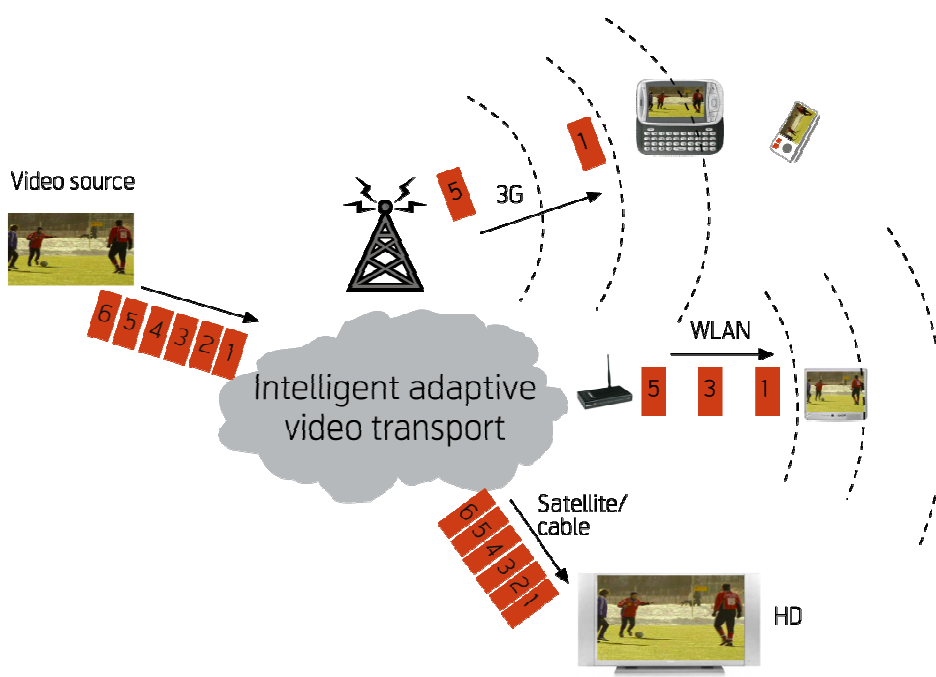
Challenges with multiple links present

- Normal approach seems to select the best network for the wanted service
- Existing solution: one network for downlink (e.g. DVB-S) and another for uplink (POTS)
- The different networks will have different protocols as well providing different raw data end-user capacity
- Additional software and hardware probably needed when traffic is split up in parallel streams to run over different physical networks
- Dynamic network discovery, selection and combination with others
- Scale traffic flows that can adapt to networks and user terminals



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Adaptive and scalable networks



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Business models and wholesale services

- Access network provider and Local Point of Presence
- Need of B2B (SP2SP) control and automation
- Efficient wholesale service offerings (ref. IPsphere ideas)
- Extensibility and functional modularity
- Information and data models



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Service convergence and delivery in a multilink environment

- New converged services models
- Service provisioning in a dynamic (multi actor) environment
- Dynamic discovery and policy-based network and service control and management
- Roles, rules and functional layering in an IMS environment
 - Service, transport, and access user profiles
- Virtualization of network services to enable efficient service provision and value added services



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Applying autonomies and virtualization in service provisioning and network management

- Efficiency in operations and business support is a key requirement
- Service quality and fault management in a multilink environment
- Self management
- Adaptability
- Virtualization and SOA for control and management



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Summary: Expected MARCH results

- Simultaneously utilisation of several network access links
- Increased capacity and coverage with less investments
- Modular network architecture that better supports growth
- Lower operational cost due to scalability and modularity
- Demonstration of new adaptive and scalable services
- Business models for converged services in multilink scenarios



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MARCH Multilink architecture for multiplay services

Objective

Significantly lower the cost of converged broadband service delivery by establishing scalable multilink network architectures

Keys

New business models. Simultaneous using several networks.

Scalable and adaptive applications. Modular network structure

Budget and timing

Budget 6.1 M€ including 41 person years

Start 1 June 2008, run for 3 years

Partners (some from start and some will join later)



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