



Convergence and Spectrum management

DELEND A Lamia - FRANCE TELECOM

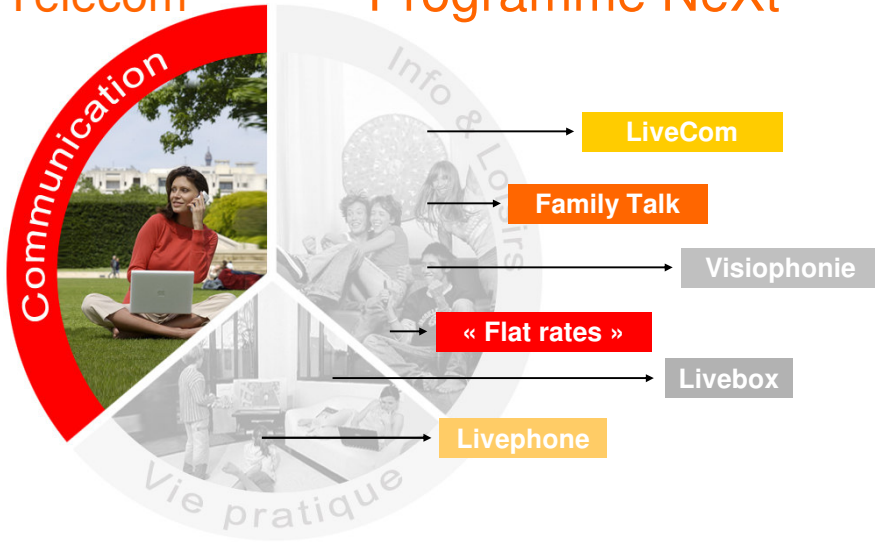
21-24 Novembre 2005

The current trend of convergence of services



- The convergence of existing services and applications is supported by technological advances and is induced by customer expectations
- Some technologies are paving the way for convergence between mobile, fixed and digital content services...
- sustained by the convergence of the radio access networks...

Convergence of Services at France Telecom - Programme NeXt



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3

Give access to a new world of services



“A new generation of telecom services to change everyday lives”



A strategy for services and innovation

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NeXt Steps..



How integrated operators see current issues on radio regulation relating to Convergence?

- Spectrum management encompassing integrated players strategy to favour innovation and Growth
- Discussions have to lead to regulatory changes when administrative rules on spectrum are not adapted
- Changes have to be interpreted in regulatory terms

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Convergent services



Some challenges in current spectrum management framework ..

- Mobile TV : is it a mobile service or is it broadcasting ?
- Nomadic Wimax is it a mobile or fixed service ?
- PAMR 450 MHz can it be used to implement mobile cell network ?

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Favouring a step by step approach



- Discriminatory situation that may negatively impact competition must be addressed
The overall context has to be scrutinized and the evolution has to be as smooth as possible.
- Adapt the rights of use spectrum and the associated obligations to avoid unfair competition issues
- Consider the interference problems
- The aim must remain the avoidance of unnecessary regulatory obstacles to the development of the electronic communication services.

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7

Example of regulatory challenge with a french case



PAMR 450 MHz in France : a convergence issue ?

- PAMR services used to be delivered at 450MHz in TETRA technology
- The PAMR operator asked to change technology to use CDMA PAMR technology. This would have de facto given birth to the suppression of barriers between PAMR and PMR network functionalities.
- Proposal was made to align spectrum fees with those of public mobile operator(PAMR)

NRA Decisions : the spectrum was given back to NRA that will put it soon in the market on an open and non discriminatory basis

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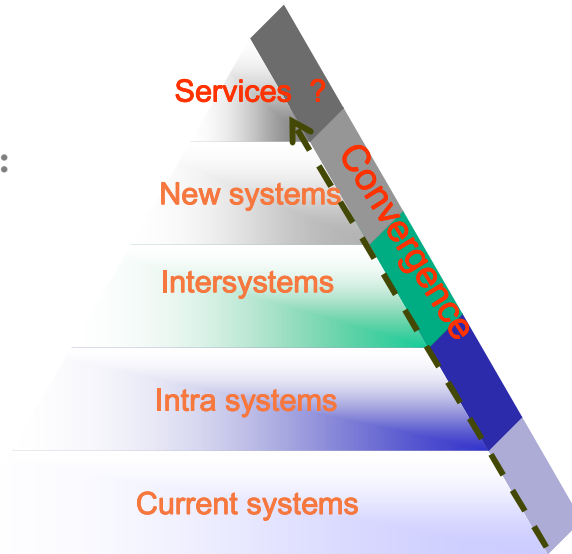
8

Convergence and coexistence of technologies



Services convergence :

- on technological advances
- on aggregation of technologies



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9

Regulations and Convergence



- What Rules to drive innovation ? Equitable access and fair competition rules and actions to foster investments not to stop them
- What Rules to foster Growth and Economic advantages ? A clear regime to handle Legacy aspects



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10

Convergence main risks are related to administrative follow-up



- The increase of discriminatory cases if regulations are not equitable in terms of consistency on fees or on access to spectrum
- Risks that Regulations may not consider the necessary identification of extra spectrum to give access to spectrum to innovative applications for convergent radio systems
- The existing distinction between spectrum for commercial and non commercial services has no longer relevancy. It could put a brake on the development of services based on technological convergence.
- The commercial nature of an application should be the only criterion that counts.

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What kind of regulatory answers as for major players ?



- Take care of Integrated players expectations : benefits but not only...!
- Adopt a pragmatic approach by adapting in a timely manner the technological advances as well as business constraints
- A dynamic and pragmatic solution should be proposed to handle regulatory limitations and constraints

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12

Regulators' questions and goals



Convergence between Fixed and Mobile services will raise the question of :

- Promotion of efficient use of spectrum
- Application of sharing principles
- Establish equitable conditions to operate on competitive market
- Definition of Licensing conditions in an appropriate, transparent and fair manner
- Further challenges

- How should integrated operators conciliate otherwise new strategies of convergence if the playing field is a segmented market ?

- How shall be integrated the substitution between bands on a same market ? (alternatives bands, other technologies)

- How licensing policies will be embracing that convergence issue ?

- A generic license would have a relevant meaning, likely to comfort integrated players flexible usage but what about spectrum fragmentation and Interference issues ?

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13

How to improve then spectrum management rules ?



→ "Good" spectrum management remains a policy goal:

"Regulators shall ensure the effective management of radio frequencies for electronic communication services"

→ So that authorization (general or individual) can be restrictive :

- to ensure effective and efficient use of frequencies
- to define technical and operational conditions necessary for the avoidance of harmful interference
- to comply with obligations under relevant international agreements relating to the use of frequencies.

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What message France Telecom may deliver ? 



Suggestions

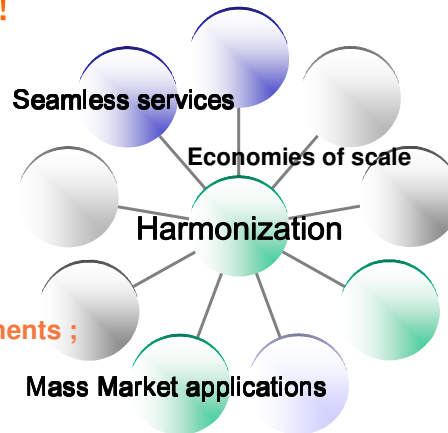
- To identify further the different regulatory regimes linked to the existing bands allocated to radio access networks (for Mobile services, broadcasting, RLAN....)
- To set new horizons to consider with equitable regulatory considerations commercial and "non commercial" spectrum
- Answer to technical and technological innovation in a timely manner
- Satisfy market demand and avoid discriminatory cases
- Favour new uses
- Reducing access delay to spectrum

Success Key Factor : Harmonization and a relative stability !



- Harmonization based approach

- Clear policy on committed investments ; and Confidence for Industry



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17

What is the global aim ?



- To define conditions and rules promoting business models for mass market applications, likely to develop innovation, generate growth perspective and Customer satisfaction !
- Avoid the risk driven by precarious businesses as investments are underpinning Growth,
- Promote clean usage and avoid spectrum fragmentation
- In order to maintain a competitive environment and promote innovative solutions and enhanced technologies likely to provide **Successful Stories**....!

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18



Thank you for your attention

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19