



International Telecommunication Union

IPTV - Market, Regulatory Trends and Policy Options in Asia-Pacific

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Overview, Monday

- o Definition
- o IPTV in triple play
- o Development of broadband and IPTV
- o Media market
- o Challenges for development of IPTV
- o Regulation of broadcasting
- o IPTV regulatory issues
- o Conclusion



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Definition (I)

- **IPTV:** Is provided over managed networks
 - Linear/Nonlinear, live TV/on demand
 - mostly professional made but room for User Generated Content
 - Same or even better quality than traditional TV
- **Internet TV:** Is provided over the Internet
 - Mostly nonlinear and on demand.
 - Increasingly User Generated Content
 - Reduced quality
- **Mobile TV:** Is provided over mobile or broadcast networks
 - Linear/Nonlinear, live TV/on demand
 - Mostly professional made but room for User Generated Content
 - Can be a version of IPTV: like DVB-H IPDC or DAB-IP. Other standards: DMB and MediaFLO
 - Reduced quality but mobile consumption

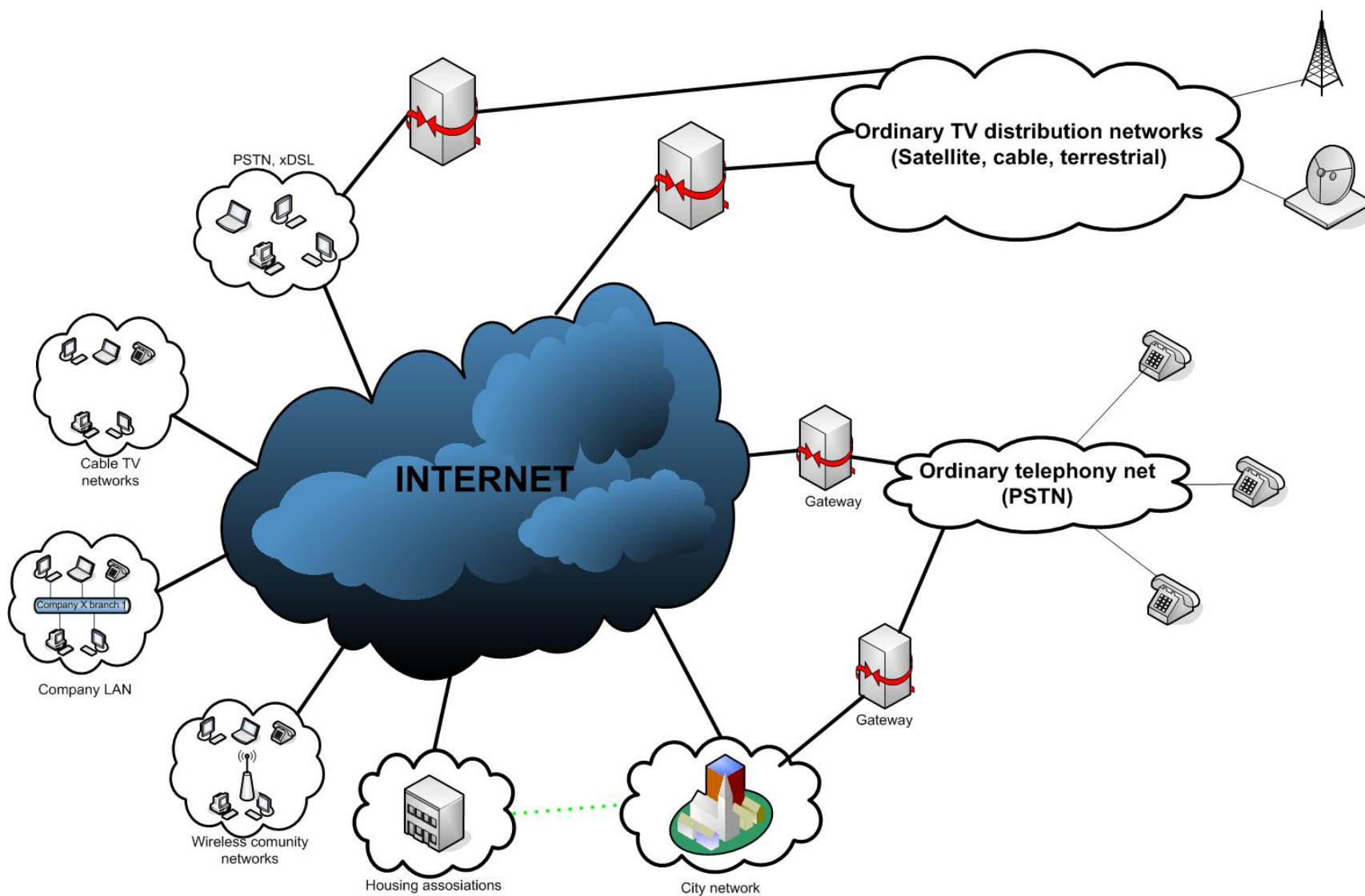


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Definition (II)

- o IP platforms
 - Managed
 - Local
 - QoS , Security, Multicast
 - Open or closed
 - Internet
 - Global reach
 - Best effort
 - Open: Huge potentials for service innovation
- o Broadband platforms
 - Fixed (Wired or wireless): xDSL, FTTx, Cable TV, WiFi, WiMAX, ...
 - Mobile: 3G, beyond 3G, mobile WiMAX, ...

IPTV in a triple play architecture

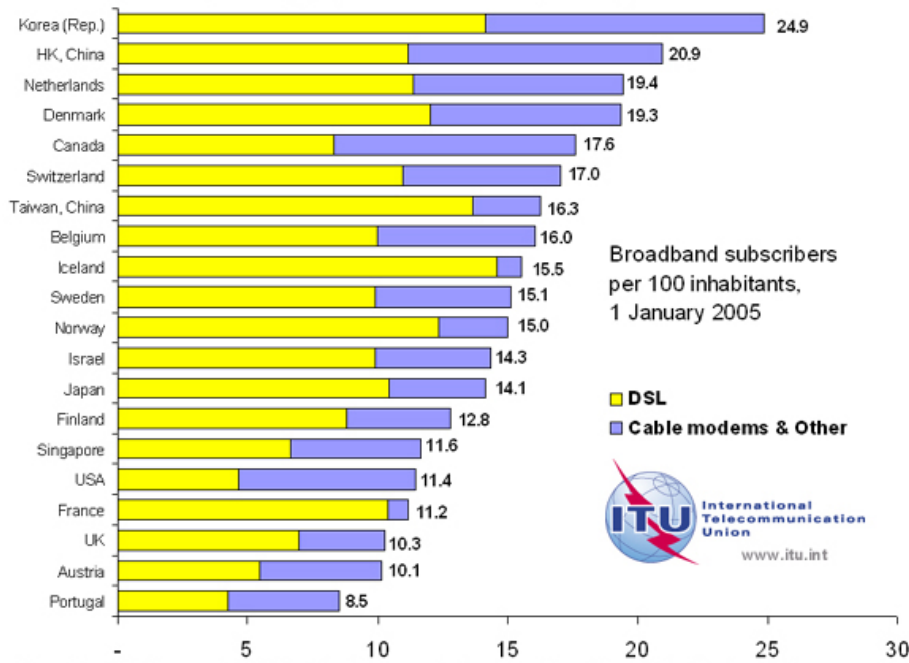




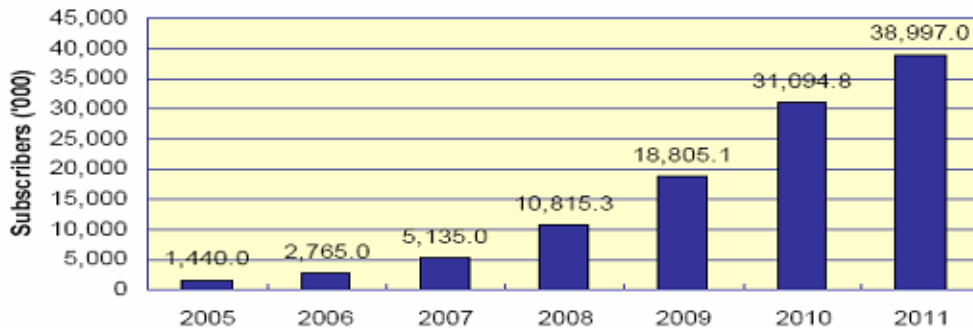
Development of broadband and IPTV

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Broadband penetration by technology, top 20 economies worldwide, 1 January 2005



Source: International Telecommunication Union (ITU) adapted from national reports (excludes mobile cellular broadband (e.g., 3G)).



Source: In-Stat, 3/06

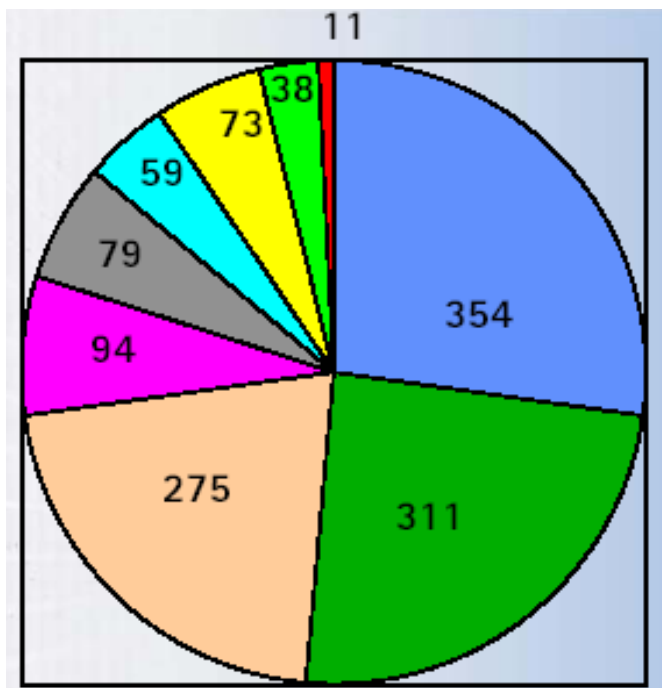
IPTV Subscribers in Asia Pacific

- Broadband is developing rapidly, both in terms of penetration and bandwidth
- Huge potentials for telcos and other broadband providers to include services beyond voice and Internet access.
- IPTV will be a vital service, as it gives the telcos access to the E-media market



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Media market (Source: Price Water house)



- World Media Market 2006, €1300 bn
- TV - the largest Segment
- IPTV - more than TV, will include other parts of E-media market



Challenges to development of IPTV

- Technological
 - Minimum bandwidth of 20 Mbps
 - End-to-End QoS provision
- Economic
 - Cost
 - Business model
 - Complementarity versus competitiveness
- Regulatory/policy
 - Several parameters, which are the subject of the rest of presentation



Regulation of broadcasting (I)

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- o Technological parameters
 - Resource scarcity
 - Interference.
 - o Economic parameters
 - Market failure: Public goods: *non-exclusivity* (once a good is produced nobody can be excluded from using it) and *non-rival consumption* (additional consumers can use the good / service at zero marginal cost)
 - Vertical Integration & Horizontal concentration
 - Other market failures:
 - Externality
 - Natural monopoly: Economy of scale / scope
 - Asymmetrical information



Regulation of broadcasting (II)

- ITU-T ○ Content specific (political) parameters
 - Decency, ban on offensive content, regulation of commercials, protection of minors, consumer protection, plurality, cultural development, ...
 - The media can be used by children and people unable to read, therefore it is:
 - Optimal media for education (and propaganda /thought control)
 - Optimal media for development of cultural and language related issues as well as handling security specific tasks
 - Optimal media to develop democracy and overall political goals.
- Historical parameters
 - Emergence from telegraphy.



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Regulatory issues of IPTV (I)

- o **Convergence:** Institutional barriers and the fragmented regulatory situation. The institutional setting is identified as one of the main barriers for the creation of an efficient framework for the development of IPTV services.
- o **Licensing, authorisation, registration.** Different countries use different approaches creating varying levels of barriers.
- o **Organisation of services and bundling.** Because cable TV has been treated as a local monopoly, there have been strict rules on the organisation of services. This may change and we may see a development from tiers/packages to 'à la carte'. This depends on the attitude for content providers and regulators.



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Regulatory issues of IPTV (II)

- **Standardisation and interoperability.** A number of different standards are available for IPTV. Here, there is a huge challenge for the industry and regulation to create **open standards** as well as creating **interoperability** between different standards.
- **Rights issues and DRM.** The rights issues become increasingly important when we move to the IP platforms. This is definitely a barrier for development.
- **Retransmission of terrestrial signals.** The success of IPTV depends on the content. Here, retransmission of terrestrial content will play a major role.



Regulatory issues of IPTV (III)

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- o **Must carry.** Cable operators will require level playing field, when it comes to regulation.
- o **Set-Top-Boxes.** By developing multi platform set-top-boxes, the industry can contribute to the creation of more choices and better utilisation of resources.
- o **QoS.** QoS is mainly a parameter that will be handled in the managed IP network. QoS may become a regulatory parameter
- o **Content:** related issues. Issues like cultural, language, and industry protection are as important in the IPTV world as in other technology areas.



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Regulatory issues of IPTV (III)

o Industry protection.

- Many evidences show that IPTV development is not a priority because the governments want to protect cable TV operators and their investments.
- We see also that governments protect their investment plans for DTT
- In this respect IPTV may be seen as a disruptive technology
- However, IPTV is future oriented and there are huge potentials. Also from a industry development view. The regulators and policy makers should give room for a healthy development of IPTV market.



Conclusions

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- o IPTV develops rapidly in the Asia Pacific
- o Market potentials are high
- o The demand side have shown their huge interest
- o Telcos and broadband providers see this as an important chance to expand their market
- o IPTV is more than another platform for broadcast TV
- o IPTV will not only take part in TV market. IPTV will merely take part in the E-media market and expand it.
- o To reap the potentials there is need for an efficient regulatory framework for the converged services like IPTV. The case studies show that there is, a.o., need for:
 - Common definitions and common regulatory framework regardless of technologies
 - Convergence of institutions
 - Resolving the content rights issues
 - Put standardisation and interoperability on the agenda
- o However its is also important to have cultural, consumer protection and societal goals and utilise the capabilities of the technology to promote local content, etc.