



From Service Specific to unified Licensing: Problems and Prospects

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Traditional Service Specific Licensing Regime

- Fixed/Basic Service
- Cellular Mobile Service
- National Long Distance Service
- International Long Distance Service
- ISPs
- Broadcasting

Licensing regime

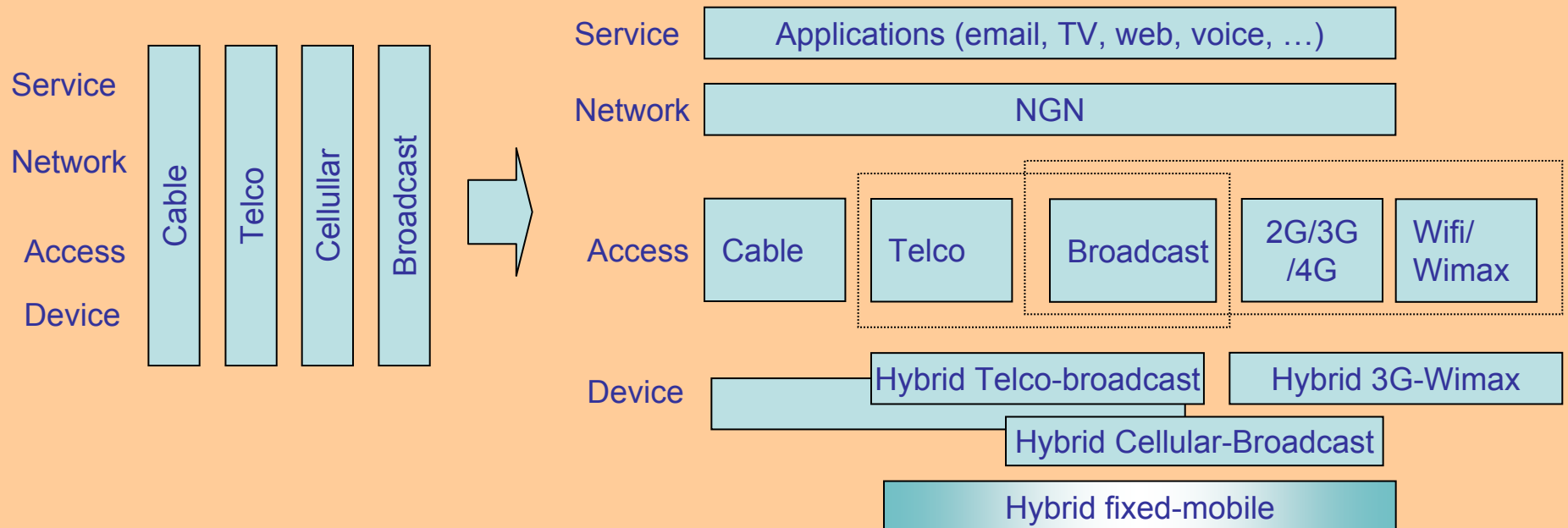
Licensing regime should be such that it does not come in the way of deployment of latest technologies but at the same time technology should not be able to bypass regulatory system so that it disturbs the level playing field

Technological Developments

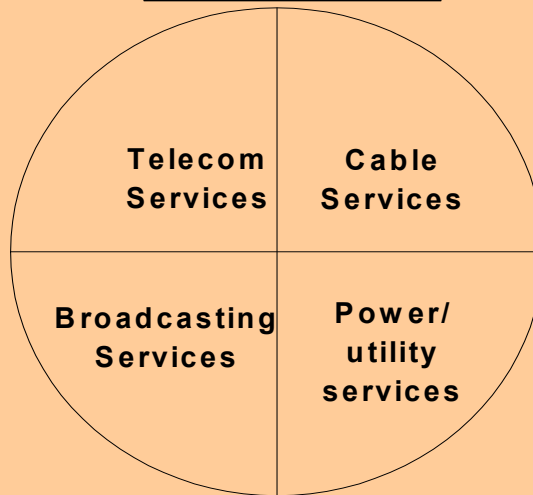
- **Fast Pace of Technological developments.**
- **Overlap in the scope of service specific license.**
- **Licensing restrictions should not come in the way of technological developments.**

Levels of convergence

Convergence might be seen as the migration from vertical to horizontal markets, at different levels.

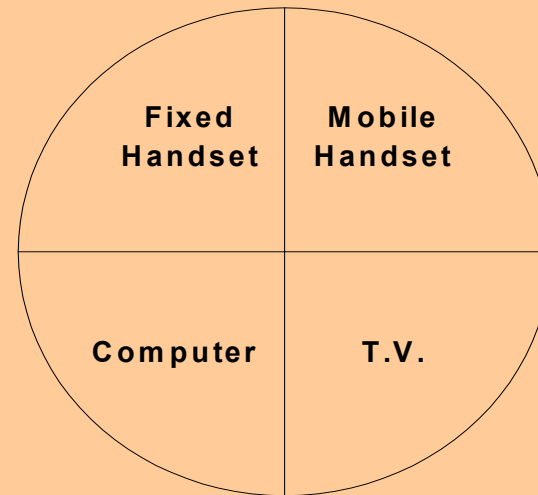


Service Providers



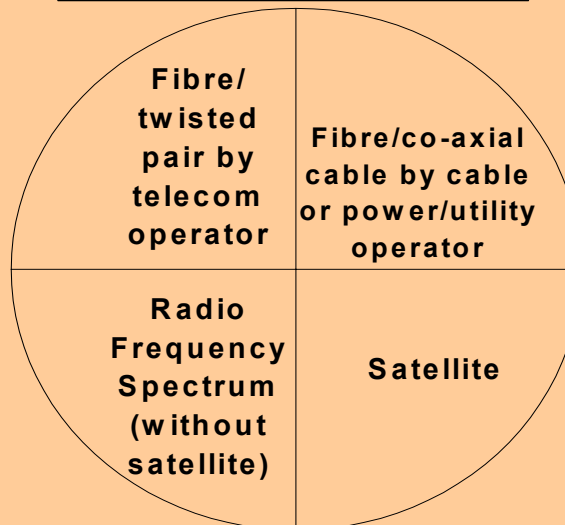
Circle (a)

Equipment for receiving the service



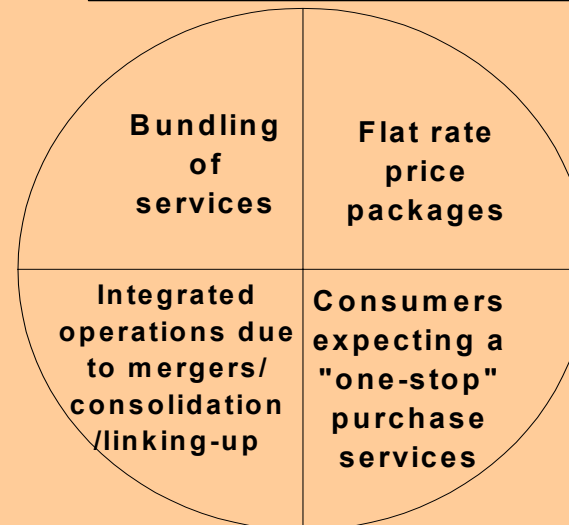
Circle (b)

Modes of delivery of service



Circle (c)

Market related developments



Circle (d)

Why Unified Licensing

Technological Developments

- **Fast Pace of Technological developments.**
- **Overlap in the scope of service specific license.**

Market Trends

- **Tariff Convergence**
 - **Convergence of Fixed and Cellular tariff gives rise to Product Substitution.**
 - **Falling tariff for Cellular services**
- **Same Charging Regime**
 - **CPP for both fixed and Cellular services**
- **Very high growth of wireless subscribers**

Reforms in licensing process is a must considering the technological developments and market trends.

International Practices

A number of countries are migrating towards the concept of authorisation or converged licensing.

- o Unified Licensing regime enhances the scope of applications/ services that can be provided under a given Single license / Authorization, thereby removing the policy imposed artificial barriers on application of technology.

International Practices (Contd.)

- o **EU Model** - Simple Authorisation Regime
- o **Singapore Model** - Facility Based and Service based Licensing:
- o **Malaysian Model** - Converged Licensing framework
- o **Argentina Model** - Single License Regime
- o **Japan Model** - Simple Registration/Notification
- o **Australian Model** - Carrier license and carriage service providers
- o **India, Kenya, Uganda** - Unified Licensing

Telephony and Broadband by Cable TV Operators

- In some parts of the world Cable TV Operators have become bigger telephone operators after toppling the traditional telephone Companies, e.g. Cox Communications in Omaha, Nebraska, USA. Cable TV telephony & Broadband is growing.**
- On the other hand telephone Companies are offering TV Services either through Satellite or through Wireline Media e.g. PCCW, Hongkong**

Telephony and Broadband by Cable TV Operators (contd.)

- **Two industries are raiding each other's turf. e.g., U.S., Japan, South Korea.**
- **It is a battle of Bundles. 'Triple play services' improves ARPU.**
- **Technological advances are making it possible without making huge investments.**
- **No legacy problem for cable TV operators. End to End IP Services.**

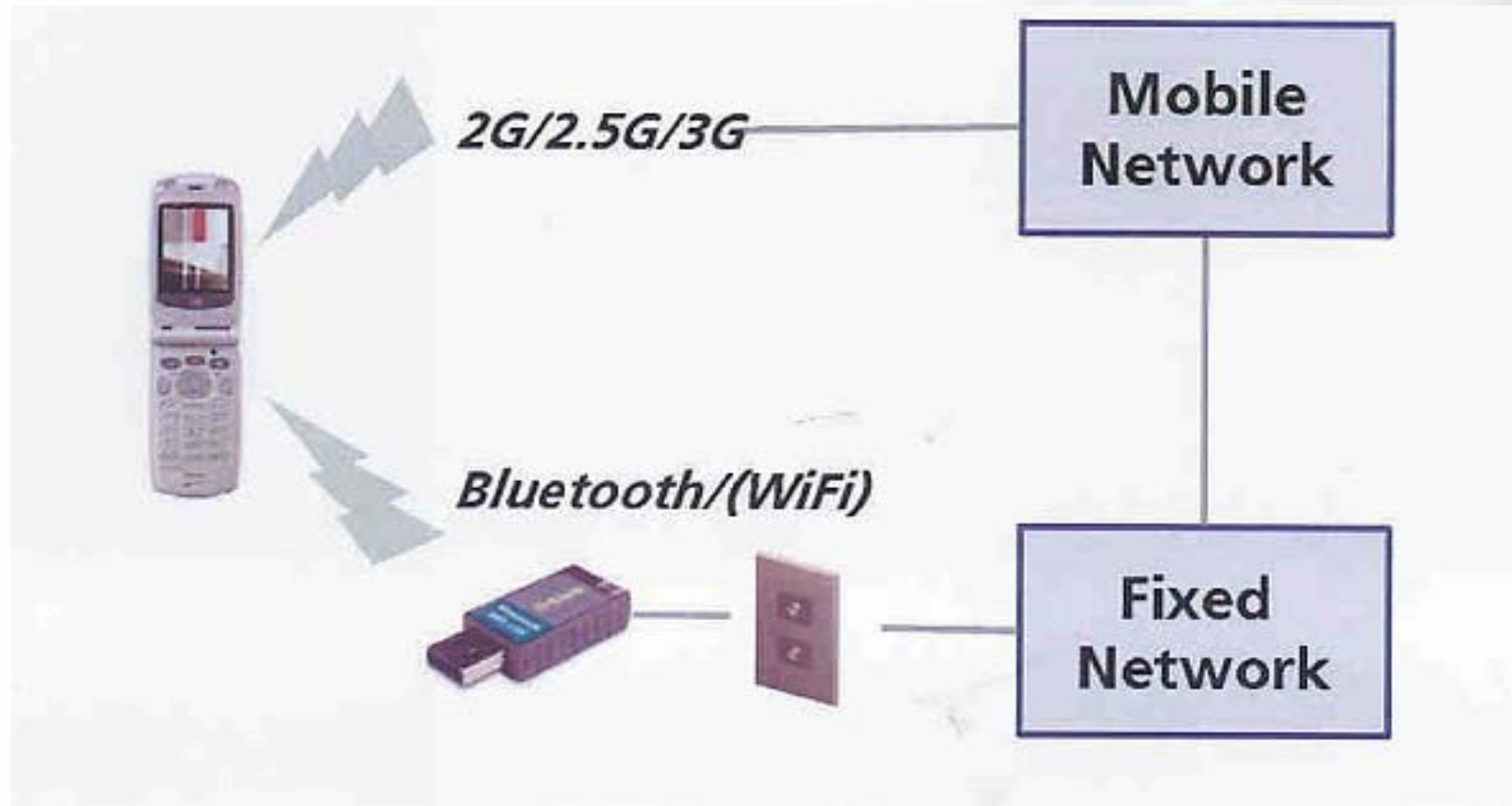
Key Objectives of Unified Licensing

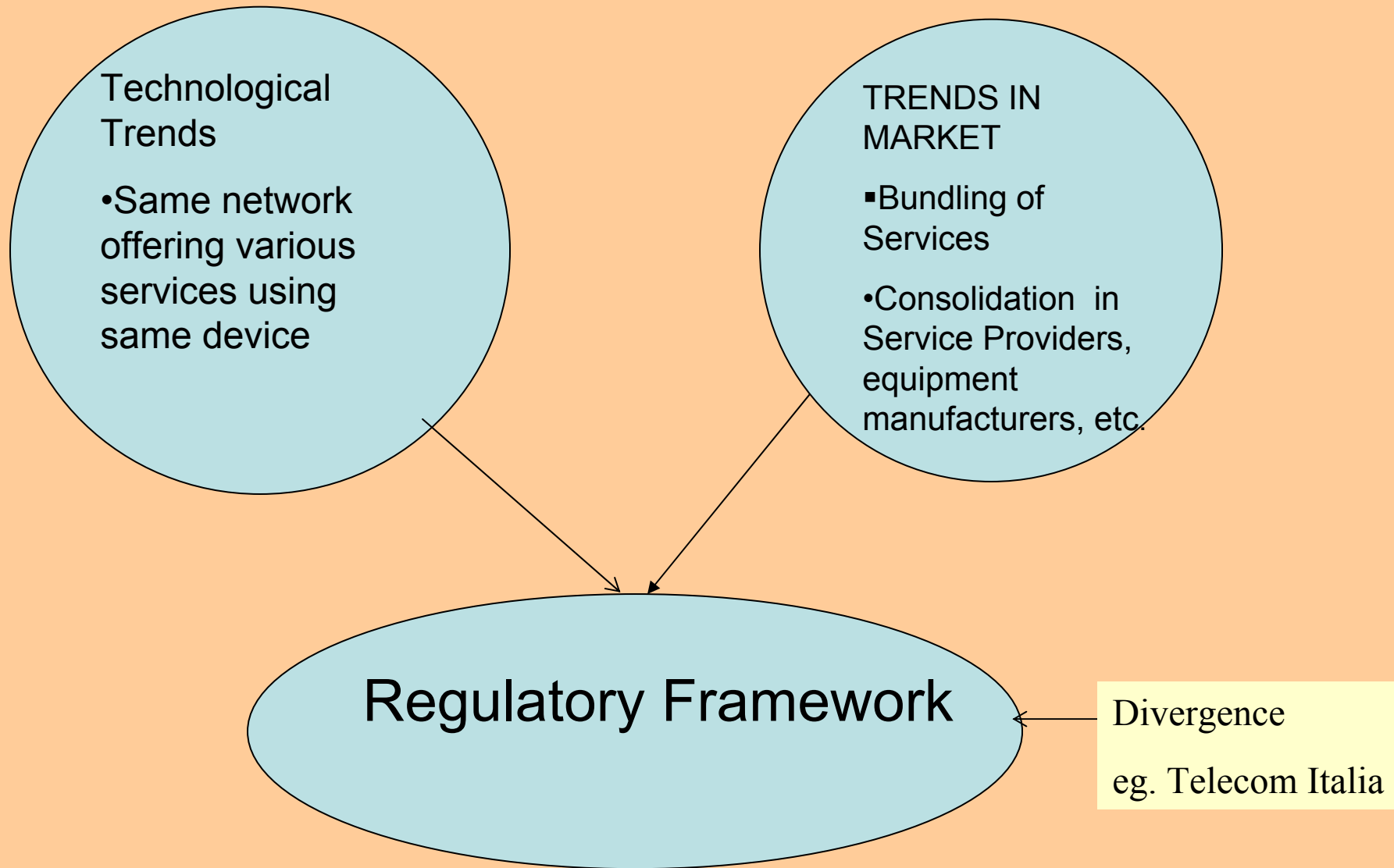
- o To encourage free growth of new applications and services
- o Simplify licensing procedure and easy entry
- o Reduce legal disputes on scope of license
- o Ensure flexibility and efficient utilisation of resources
- o Ensure level playing field and fair transition to the new regime.
- o Encourage efficient small operators to cover rural, remote and telecommunication facilities wise less developed areas.

Fixed-Mobile Convergence

- Is a reality and the quest is to have a fully integrated IP based network.
- It is estimated that about 60% of mobile calls are made within a building.
- British Telecom's 21 CN network concept (Bluephone) is developing such a system which through a Wi-Fi / Bluetooth Wireless Interface base station would be connected to fixed network.
- With fixed-mobile convergence
 - Mobile calls made in buildings would be routed to the fixed network.
 - Mobile calls made outside the building will be routed via the traditional mobile network.

Fixed-Mobile Convergence





Transforming devices

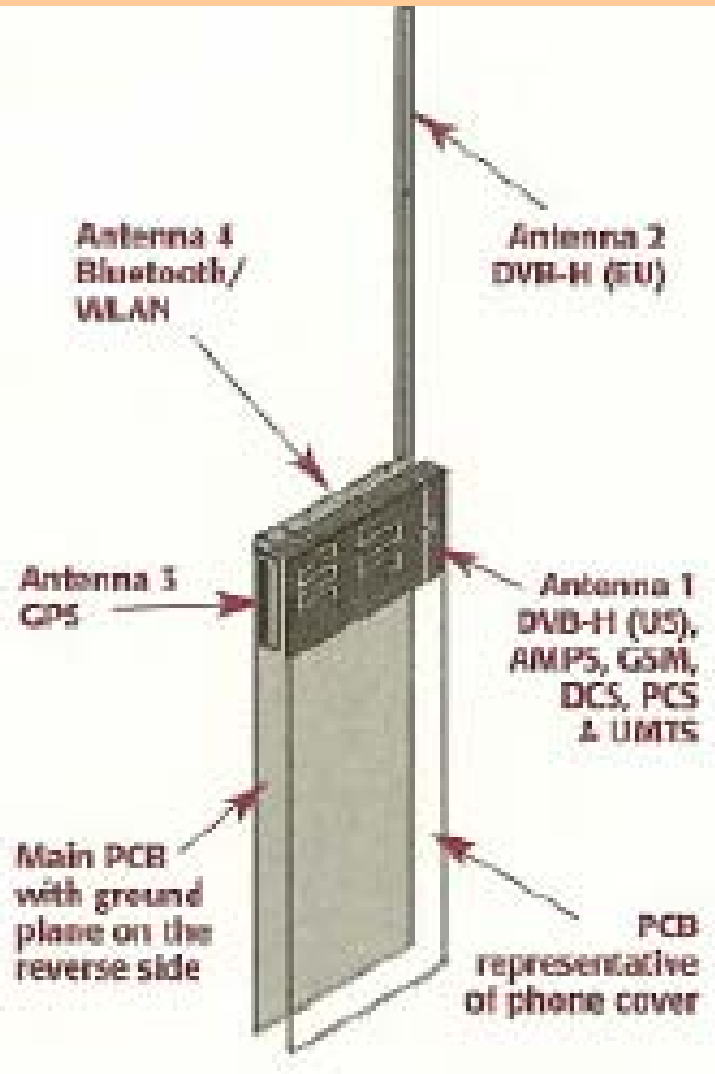
The Television Has Disintegrated. All That's Left Is the Viewer

Editorial, The New York Times, August 13, 2006

- Devices are being disintegrated.
 - Like TV basically a single device with two components – a display with a tuner
 - Transformed in to a device to work with a DVD, a game controller iPod etc

Future Mobile phone

- Nine band prototype phone
 - Five cellular bands (AMPS, GSM, DCS, PCS and UMTS), plus two Mobile TV bands, GPS and Wireless LAN (Bluetooth/Wi-Fi)
- Common Integrated System in the device like Antenna System, Display system capable for high quality output delivery



March 1st, 2007

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Source: IET Communication Engineer, June/July 2006

- The way to get the best outcome is to imagine what the ideal solution would be and then work backward to where you are today.
 - Source: A book titled “Idealized Design: How Bell Labs Imagined and created-the telephone system of the future”under printing by Wharton School Publishing.

Net neutrality

TRAI

- Principle that network operators should give equal treatment to all the traffic on their networks.
 - Underpins innovative culture of Internet
- Telecom companies argue that they should have the right to charge internet companies for delivering their videos, emails, search results or at least for fast and guaranteed delivery.
 - Assist Telecom companies in building NGN.
 - If not permitted, may discourage new investment.
- . Telecom companies to build “express toll lanes” alongside the internet’s existing highways. Some data packet would be favoured over others.
 - Could limit choice and innovation.
 - Undermine fundamental principle of Internet openness
- Some packets are already favoured.
 - Has it hampered innovation?
- Starting in US, but now also spreading to Europe.

Innovation Vs Investment

Net neutrality (Contd)

- Bandwidth demand is increasing exponentially leading to bandwidth scarcity problem.
- Should telecom operators be permitted discriminatory treatment to some information packets.
- Overly prescriptive rules could prove counterproductive.
- Blocking or interfering with existing traffic may not be acceptable but if operators build a parallel fast lane, it may be in consumers interest.

New Challenges (Contd.)

- Interconnection in NGN Networks
- Quality of Service

12 truths about how the net really changes business

- 1. Internet isn't as disruptive as we thought.**
- 2. If it doesn't make cents, it does not make sense.**
- 3. Time favours incumbents.**
- 4. Making a market is harder than it looks.**
- 5. There is no such thing as “Internet time”.**
- 6. “Branding” is not a strategy.**
- 7. Entrepreneurship can't be systematized.**
- 8. Investors are not our customers.**
- 9. Internet still changes everything.**
- 10. Internet changes your job.**
- 11. The distinction between internet companies and non internet companies is fading fast.**
- 12. The real wealth creation is yet to come**



THANK YOU

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