License to …… converge

Muhammad Aslam Hayat
Consultant
aslamhayat@gmail.com

Agenda

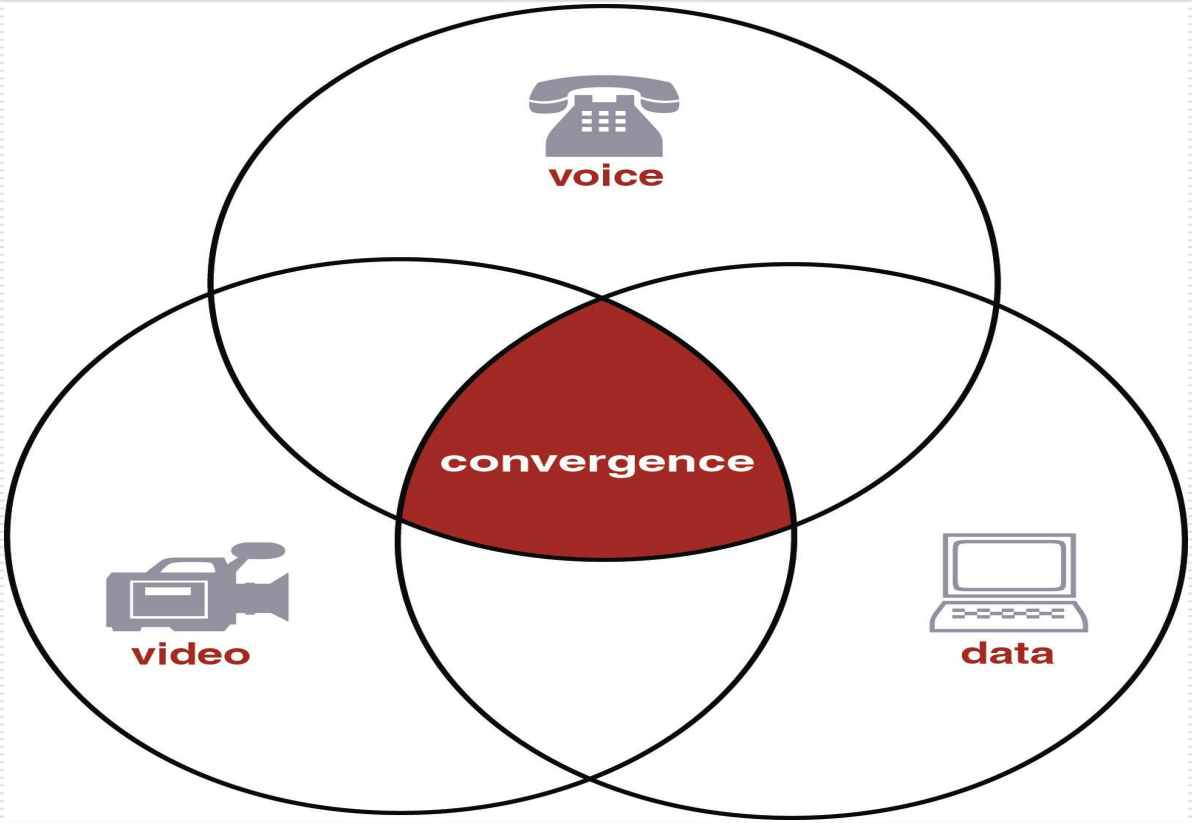
- Convergence
- Terminal and service
- Convergence
  - Developments
  - Levels
  - Drivers
- Regulatory challenges
- Licensing challenges
- Licensing options in convergence
- Technology neutrality Vs service neutrality
- Converged licensing regimes
  - Malaysia
  - India
  - Nigeria
  - Pakistan
- Challenges and choices

Convergence?

- ITU:
  - "..technological, market or legal/regulatory capability to integrate across previously separated technologies, markets or politically defined industry structures. It is basically the integration of three distinct sectors: IT, Telecommunication and Broadcasting"

- European Union (EU):
  - "…..the ability of different network platforms to carry essentially similar kinds of services, including the coming together of consumer devices such as the telephone, television and personal computing"

One terminal: any service



Convergence merges voice, video and data on a single network

Convergence – Developments

- Convergence of services
  - FMC
- Convergence of networks
  - same services through different types of networks
    - e.g. UMTS, FWA and copper-based or optical wired networks
- Convergence of markets
  - Overlap between markets, but each type of network still maintain their own market niche due to differences in technical capabilities and cost structures
- Convergence of regulation
  - Difficult to maintain different rules in different sectors

Convergence – Levels

- Device
  - Combining multiple functions into a single device that accesses multiple services across multiple access technologies
    - e.g., smart-phones
- Service
  - Combining multiple access-based services to create a unified user experience with a single service offering
    - e.g., FMC
- Network
  - Combining separate networks and support systems to create a unified networking infrastructure

Convergence – Drivers

- Technology
  - Advancement in technology and innovation in devices
- Industry-supply
  - Innovative products and services
- Market-demand
  - Requirements of customers
    - Demand from Bangladeshi emigrants for m-payments
- Policies/regulation
  - Government efforts for development of ICT
  - Regulators to keep pace and act as enabler

Converged licensing regimes

Country	Licensing regime
Australia	Carrier licence and carriage service providers
European Union	General authorisation regime
India	Unified licensing
Japan	Simple registration/ notification
Kenya, Malaysia, Mauritius, Tanzania	Converged licensing regime
Pakistan	Technology neutral licensing
Mali, Uganda	Converged licence for National Operators
Singapore	Facility-based and service-based licensing

Convergence – Regulatory challenges

- Legal and social challenges
- Technical challenges
- Licensing challenges
- Frequency spectrum challenges
- Competition challenges
- Consumer protection

Licensing challenges

- Review of existing licenses
- Possibility of multiple or unified licensing for existing service provider
- Migration of all current licenses from old to new licence categories
- License transitions process
- License structure design and drafting

Licensing: continuously evolving

- Licensing if not evolving may become an obstacle to development of ICT market
  - Individual licenses to class licenses and general authorizations
- Preserving onerous and complicated licensing requirements creates artificial barriers to market entry
- In converged environment licensing regime should be such that
  - Does not prohibit deployment of latest technologies
  - New technologies should not be able to bypass regulatory system

Converged licensing

- Traditionally telecom regulation has provided different licenses for different services and technologies
- Under convergence, regulatory regime have to facilitate dynamic development of technology and product markets
- Allow flexibility in licensing framework for new services
  - Unlike old service-specific regime where new license categories had to be prescribed each time a new service or technology was developed

Converged licensing options

- Integrated license
  - One license for all services (Monopoly era)
- Unified licenses
  - Unification of various license
- Technology neutral licenses
  - Lets operator to decide best technology
  - Limitation of scarce resources
- Service neutral licenses
  - empower operator to offer variety of different services and applications, tailored to fluctuations in market demand
- Liberalized authorization/registration
  - Class licensing

Vertical converged licensing

- Network facilities
  - Authorize construction and ownership of communication infrastructure
- Network services
  - Authorize operation of communication networks in order to deliver services
- Application service
  - Authorizes reselling or procurement of services from network service operators
- Content service
  - Authorizes provision of public content

Technology neutrality

- One of key goals in moving to a converged licensing framework is to achieve technology neutrality
  - Licensee retains ability to choose technology and equipment to provide licensed service
- Technology-neutral licensing does not necessarily mean service neutrality
  - Best example of technology neutrality without service neutrality is when a mobile service license is issued but operator is allowed to choose whether to employ GSM or CDMA technology
- Technology-neutral licensing regime provides a fair and predictable regulatory regime flexible enough to embrace technological and market developments

Service neutrality

- Regulators are increasingly moving to service-neutral licensing
  - This allows licensees to take cues from market as to which services are most in demand or most cost-effective
  - A generic license empowers operators to offer a variety of different services and applications
- Converged licensing frameworks that incorporate technology and service neutrality increase scope of applications and services that any operator can provide, using its choice of technologies
- Many countries have adopted converged licensing regimes
  - Australia, EU Member States and Malaysia

Malaysia

- **Objective:** Convergence across sectors and services
- Malaysia's Communications and Multimedia Act 1999, paved way for convergence by introducing a technology and service-neutral licensing regime for telecom and broadcasting that reduced 31 service-specific licenses to four generic categories of licenses
  - Network facility providers
  - Network service providers
  - Application service providers
  - Content applications service providers
- MCMC began migrating telecom and broadcasting operators to new licensing regime in 1999
- This migration process was completed in 2002, and could offer some lessons

India

- **Objective:** Resolve mobility issue
- India's moved towards a unified licensing regime mainly to handle one issue; mobility
- In a consultation paper issued by TRAI proposed several unified licensing models
- A unified access regime for fixed and cellular services was established in November 2003
  - both fixed and mobile service providers are free to offer their services using any technology

Nigeria

- **Objective:** Advancement of ICT development
- Nigerian Communication Commission published a consultation document in February 2005 announcing intention to transit to unified licensing
- Followed by series of seminars, consultations and responses from industry which culminated in final consultation document published on the 30th of January 2006
- Unified Service License covers following services
  - Fixed Telephony (whether wired or wireless)
  - Digital Mobile Services
  - International Gateway Services
  - National Long Distance Services
  - Regional Long Distance Services
  - All Unified Licensees will be able to provide ISP, VAS and payphone services

Pakistan

- **Objective:** Service neutrality without unified licensing
- Pre-2003
  - Integrated license in fixed
  - Tech specific in mobile
- After liberalization
  - Technology neutrality
  - Operators allowed to apply for any category
  - Introduction of class licensing for VAS
- In CVAS only two category
  - Voice
  - Data
- Mobility row between mobile and WLL licensees
- Deregulation policy under review

Converged licensing

Pros

- Leads to a conflict free ICT environment
- Enhances quicker rollout and growth of both wireless technology, broadband and internet
- Encourages free and easy deployment of new technologies and associated services in ICT sector
- Simplifies procedure of licensing telecom sector
- Ensures flexibility and efficient utilization of scarce resources

Cons

- Competition challenges increases
- Leads to cherry picking
- In the absence of deployment obligations no infrastructure investments
- Over-simplification reduces certainty
- Tendency seen of hoarding of scarce resources

Converged licensing (Cont…)

Pros

- Encourages efficient small operators to cover niche areas
- Enhances easy entry and level playing field for all operators
- Freedom to provide multiple services under single license
- Enhances economies of scale and greater efficiency as a result of optimum sharing of infrastructure and resources
- Meets consumer expectation of one-stop service availability

Cons

- Smaller operators would be crushed by bigger operators
- Both fixed and mobile spectrum with one operator reduces possibility of new entrants
- Increased chances of bundling
- Economy of scales makes it difficult for small operators to survive
- Reduces customers choice

Challenges and choices

- While introduction of more flexible and straightforward licensing regimes is clearly the trend today

- Regulators are confronted with a large number of challenges and choices towards this ideal
  - adoption of a converged licensing model
  - spectrum management
  - setting of license fees
  - ensuring a level playing field
  - pursuit of public policy goals including universal access

Migration to new licensing framework

- One of main challenges in transforming into new licensing framework is migration of old licenses to new licenses

- Regulator must consider
  - existing telecom infrastructure and investment
  - license durations
  - existing licensees
  - current development in market
  - stopping issuance of licenses based on old framework
  - Replacing old licensing framework with new framework
  - no licensee old or new should be given unfair advantage
  - no piecemeal migration
  - migration should be voluntary until license term ends

Some selected references

- Convergence & Multiple Service Authorizations in ICT Regulation Toolkit
  - Available on-line: http://icttoolkit.infodev.org/en/Section.735.html
- Indian draft and final unified licensing recommendations
  - Available o-line: http://www.ictregulationtoolkit.org/en/Document.657.html &
  - http://www.trai.gov.in/trai/upload/recommendations/28/Recomodifiedfinal.pdf
- Nigerian unified licensing framework
  - Available on-line: http://ncc.gov.ng/index4.htm
- Towards an era of unified licensing in Nigeria Ernest C. A. Ndukwe of Nigerian Communications Commission
  - Available on-line: http://www.ncc.gov.ng/speeches_presentations/EVC's%20Presentation/TOWARDS%20AN%20ERA%20OF%20UNIFIED%20LICENCING%20IN%20NIGERIA.pdf
- Malaysian Communication and Multimedia Commission: http://www.skmm.gov.my/
- Pakistan's de-regulation and mobile cellular policies
  - Available on-line: http://www.pta.gov.pk/index.php?option=com_content&task=view&id=381&Itemid=348