

# How the Internet has produced a Mid-Life Crisis of Telecoms

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# The Mid-Life Crisis of Telecoms

- Where is telecoms?
  - Search is Google, Yahoo!, etc
  - Music downloads is Apple iPhone/iTunes, Nokia 'Comes with Music', Sony-Ericsson 'PlayNow', etc
  - Social networking and video is Facebook, YouTube, Twitter, Hulu, etc
  - Largest subscription-based global voice carrier is Skype
  - MNOs?... 'managed services, managed capacity' (MSMC) – Ericsson, Nokia, Alcatel-Lucent....

# The Mid-Life Crisis of Telecoms

- Where is the vision?
  - 1990s telecoms would build the Information SuperHighway *and* operate the tollbooths
    - Own the customer – bill the customer – revenue-share with content and applications providers – manage e-commerce
  - The Internet was truly disruptive for the ‘Bell-heads’ (vs. the ‘Net-heads’)

# Resolving the Crisis of Telecoms

- Where is the revision?
  - 2000s wired and wireless broadband is now at the centre of the revised vision
    - The convergence of telecoms and the Internet Protocol – ultimately Next Generation Networks (end-to-end IP)
  - Quadruple play (fixed and mobile, Internet and video)
    - The challenge is whether technological convergence can translate into business synergies

# Resolving the Crisis of Telecoms

- Examples of convergence and synergy
  - HKBN built a synchronous (Metro-Ethernet) network and discovered it had tapped into the world of social networking = uploads x 3 > downloads!
    - HKBN as a reference customer for Cisco provided vital feedback to achieve carrier-grade routing and networking equipment
  - PCCW built an IPTV network architecture that kept the security inside the network = low-cost/no-storage STBs and revenue-sharing agreements with movie

# Resolving the Crisis of Telecoms

- High Speed Broadband Networks (HSBNs) – ISH 2.0?
  - Australia: Canberra will fund AUD43 billion (USD31 billion) for partially-state owned HSBN (no details yet)
  - Singapore: Government will subsidize by SGD1 billion (USD 670 million) a structural separation between NetCo (GPON) and OpCo (wholesaler) and retailers
  - Malaysia: Government will subsidize Telekom Malaysia by RM 2.4 billion (USD 700 million) for HSBN – but some states are already taking a bottom-up approach

# Market Segments in Mature Markets

- Fixed line/cellular convergence and consumer markets
  - Triple and Quadruple plays to
    - diversify to take advantage of convergence
    - cross-sell to acquire customers at low cost
    - bundle to retain customers
- 3G+ (HSPA) MNOs had to abandon the ‘walled garden’ approach

# Market Segments in Mature Markets

- Business markets
  - Long term SLAs
  - Managed data services, VPNs, etc.
  - Fixed-mobile convergence (FMC) to meet needs of the flexible office
  - SAAS (for SMEs)??? Client-server (not web-browser) service assurance needed + billing models, etc

# Market Segments in Emerging Markets

- Fixed Mobile Substitution (FMS) very strong in the local loop
  - Pre-paid cellular often > 95% in emerging economies
- WiMax is being trialled and licences issued in Malaysia and Taiwan (Wibro in S.Korea)
  - Good substitute where fixed broadband is not available
  - But... mainly for backhaul? MNOs will go for LTE?

# Vendor Competition from the Internet

- New entrants in recent years include
  - Cisco (IPTV, routers for telecoms)
  - Google Android OS, iPhone, Dell, Microsoft... and ODMs upgrading to become OEMs, e.g. HTC, Asus...
- New services/new competition in search, GPS, music
  - iTunes to iPhones vs. Nokia ‘Comes with Music’ vs. Sony-Ericsson ‘PlayNow’ vs. MNO music services...

# Back to the Future for Telecoms?

- Back to utility status? Solid base of recurrent month subscribers
- New dawn in NGN value-added services based upon *synergistic* convergence? – triple and quadruple plays
- Diversification into the Internet and content space? – acquiring software and content companies, programming, etc
- International expansion into Bottom-of-the-Pyramid markets? – volume vs. value play

# Technologies and Monetizing Services

- NGNs are the future, but they can be bought in component parts, avoiding accelerated depreciation and pending POC in terms of technologies and markets
  - E.g., to date the home-hub FMC for consumers is a non-starter – only in France is it popular
- Broadband wireless – the interface (2-sided market) between telecoms (the customers) and the Internet (the content) – the latest ‘holy grail’ is advertising revenues = recognition that content is beyond telecoms?

