INTUG

# IP telephony

## a global user perspective

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# what is INTUG?

- members
  - national associations
  - corporations
  - individuals
- activities
  - ITU and WTO
  - OECD
  - APEC TEL, CITEL
    and the European Union

# INTUG our aims

- real and effective competition
- genuine choice for users
- lower prices
- higher quality
- more innovative services
- constructive co-operation with
  - international bodies
  - governments
  - regulators

# INTUG closing the digital divide

- lower costs so more affordable telephony
- but in developing countries many incumbent operators are denying, delaying and degrading VoIP
- some governments support this, trying to retain foreign currency revenues
- others use competitive telecommunications to attract Foreign Direct Investment (FDI)

"More than 50% of Africans have never made a phone call" Ekwow Spio-Garbrah, CTO, 2004

# INTUG VoIP in Africa



VoIP is an important technology that has the potential to transform telephony in Africa. Entry of IP telephony service providers whether legal or illegal in domestic markets has facilitated the acceleration of pace of market liberalisation and the introduction of competition in the long-distance and international service markets.

The general approach evidenced in Africa of prohibition is at best, short sighted, and at worst, a serious threat to innovation, eventual competition and overall consumer welfare.

Tracy Cohen and Russell Southwood
CTO report, funded by UK DfID

# INTUG challenges to security

- emergency services:
  - access to
  - provision of location information
- law enforcement authorities:
  - provision for wire tapping
  - data preservation
  - data retention
- denial of service attacks
- viruses, worms, trojans and malware
- SPIT SPam over Internet Telephony
- VOMIT Voice over Misconfigured Internet Telephony

# INTUG challenges to policy makers

- declining cost of basic telephony
- increasing range and richness of services
- blurring of traditional distinctions
- change undermines:
  - the regulatory regime
  - the established operators
  - fixed opinions
  - mechanisms to fund universal service

# INTUG regulatory issues

- access for the disabled to VoIP services
- assignment of telephone numbers:
  - geographic and non-geographic
  - "nomadic“
  - cross-border
- quality of service:
  - defining
  - measuring
- anti-competitive effects of bundling
- definition:
  - one service or many?
  - how to distinguish types?
- arcane EU ECS/PATS distinction

# INTUG challenges for fixed carriers

- low (economic) barriers to entry
- new carriers with lower cost structures
- perceptions of the financial markets
  - they do not like declining revenues
- loss of revenues
- additionally, in developing countries:
  - lack of resources, skills andcapital
  - “grey market” eroding their profit margins
  - bundling with broadband and video is not significant

INTUG new players, new games

- Vonage, AT&T CallVantage, etc
- instant messaging:
  – Microsoft, Yahoo, AOL and ICQ
- handheld games devices:
  – Nintendo DS, Sony PSP

"If PLDT were to stay on its legacy business and continue offering voice as a primary service, I think we would be dead pretty soon." Manuel Pangilinan, Chairman of Philippine Long Distance Telephone Co.

# INTUG geography

- the Internet means the death of distance
- also death of geography
- Vonage
  - area codes all over USA
  - now in some EU countries
- Libretel offers:
  - UK phone numbers for US$ 8 per month
  - delivered to a SIP platform
  - accessible anywhere
- “all you can eat” tariffs
  - national
  - international

# INTUG VoIP plus broadband

- incumbents challenged by cheap VoIP
- obvious response is to bundle, to conceal per minute rates:
  - “all you can eat” national calls
  - DSL plus “telephony” (plus video, etc.)
  - but excluding fixed-to-mobile
- they wait till others launch the service
- enormous benefits from economies of scale:
  - free on-net calls
  - Metcalf’s law

# INTUG Japan

- BBphone launched in August 2002
  - now has > 4 million lines
  - significant factor in selection of broadband supplier
  - free on-net calls
  - ¥ 7.5 for 3 minute call to USA
- NTT launched in February 2003
- some operators peering August 2003
- ministry has:
  - created special 050 number range
  - defined 4 classes of QoS
- cheap gateways to PSTN

# INTUG challenges for GSM operators

- VoIP “prices” make fixed-to-mobile look yet more expensive
  - for many the only itemised call charges
- can MNOs move to “flat fee” model?
  - for subscription customers?
  - for pre-paid customers?
- VoIP over GSM or 3G?
  - not with per Megabyte charges
  - not necessary with flat rate voice fees
- Arun Sarin (Vodafone) thinks VoIP is 3-5 years away

INTUG **Voice over Wi-Fi**

- still early adopters:
  - special handsets (e.g., net2phone)
  - softphones
- needs consumer-friendly VoWi-Fi products
- corporate campuses
- some developing countries (e.g., Bhutan)
- eventually a way to challenge international mobile roaming charges
- IM over Wi-Fi is a substitute for SMS

# INTUG what users want?

- much cheaper telephony
- more advanced services
- a comprehensible range of options:
  - price
  - features
  - quality
  - security
- competition rather than regulatory gamesmanship

# INTUG conclusions

- VoIP and IP Telephony offer real benefits:
  - for users/consumers
  - for established operators
  - for policy makers
- regulatory issues need to be resolved
  - aim for competitive market structures

# INTUG thank you

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