

**INTUG**

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# Corporate and individual customers: markets & regulation

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# INTUG contents

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- INTUG
- collective actions
- mobility
- leased lines & broadband
- IP-Virtual Private Networks
- national security
- conclusions

# INTUG what is INTUG?

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- members:
  - national associations
  - corporations
  - individuals
- activities:
  - ITU and WTO
  - OECD
  - APEC TEL, CITEL and EU

# INTUG our aims

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

# INTUG priorities

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1. open access to global mobile networks
2. regulatory best practice
3. liberalization
4. leased lines
5. IP telephony
6. digital divide
7. universal access
8. numbering

# INTUG corporate issues

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- global services;  
rather than national & regional footprints
- competition:
  - prices
- Service Level Agreements (SLAs)
- IP networks (voice and data integration)
- mobility
- enduring inaccuracy of bills
- outsourcing of ICTs, telecommunications,  
and call centres

# INTUG business adoption

- needs to deliver to the Chief Information Officer (CIO)
- lower costs
- better service
- Return on Investment (RoI)
- strategic advantage

Business also has a role as a content provider and advertiser, with a choice of many channels to their customers.

# INTUG business collaboration

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- to keep up with market developments
- to share experiences of:
  - trials
  - established services
- to press suppliers to meet needs
- to benchmark operators:
  - within one country
  - between countries
- to purchase services in bulk



# INTUG going outside markets

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- businesses often want services that are technically feasible but:
  - not available or
  - not cost-effective
- politico-regulatory intervention may be the only remedy
- the benefits for business flow through to the economy in:
  - competitiveness
  - growth
  - new jobs

# INTUG politico-regulatory processes

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- many processes require input from business users
- important to provide a business user view of market conditions to ministries and regulators
- to raise specific complaints
  - leased lines
  - international mobile roaming
- to counter the lobbying of operators

# INTUG suppliers to business

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- fixed network operators:
  - weaker away from major countries & big cities
  - poorly integrated with mobile
- mobile operators are:
  - too fragmented geographically
  - too expensive
  - too obviously uncaring  
(too focused on consumers)
  - too technologically focused, yet also too risky

# INTUG mobile market

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- very different on each continent
- global growth is largely in Asia
- Europe is characterised by:
  - stable ARPU, customer churn and replacement handsets
  - painfully slow transition to 3G
- North America
  - large “buckets of minutes”
  - flat rate data prices
- MNOs are trying to get revenue sharing deals for consumer content
- wholesaling is still an anathema
- acquisitions are partially resumed

# INTUG the future of mobile

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- many potential challengers to 3GSM
- growth:
  - limited mobility
  - fixed wireless
- problems with the transition to 3G
- threats to consumer revenues from other services:
  - DVB-H
  - DMB

# INTUG but what is the value of?

- wireless
- mobile
- cellular
- broadcast
- nomadic
- ubiquitous

Mobile operators need to know their value proposition to sell it to business.

# INTUG marketing failures

- HSCSD - nobody has heard of this
- WAP - killed by an over-dose of hype
- GPRS
  - very few business users
  - prices were out by an order of magnitude
  - prices are taking years to decline
- 3G - business users are still trialists
- HSDPA - already lots of hype

# INTUG mobile market problems

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- International Mobile Roaming (IMR)
- Fixed-to-Mobile call termination (F2M)
- Mobile Number Portability (MNP)
- Short Message Service (SMS)
- national mobile roaming
- simple handsets, bought separately
- wholesaling continues to be ignored

Operators 3D strategy: deny, delay, degrade



# INTUG results of market abuses

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- very much higher charges to users
- lower levels of use
- users are unable to benefit from:
  - service innovation
  - technical innovation
- no progress on fixed-mobile convergence
- very limited use of cellular data services
- lack of trust in mobile network operators by:
  - users
  - fixed operators

# INTUG freephone

- well-developed channel to customers on fixed networks
- but rejected by MNOs:
  - afraid of bypass to international operators
  - seen as an opportunity to “share” revenue
- must use their separate numbers

Operators are taking very large profits on bulk SMS (low priority traffic in the signalling channel).

# INTUG fixed-to-mobile

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- domestic abuse extended abroad
- long and unpleasant disputes
- cost orientation is no more than €0.05/minute
- MNOs assert they will have to raise origination prices and cut handset subsidies
- smaller operators claim they will be driven out of business
- Germany claims its consumers respond to termination prices
- remains the major obstacle to convergence

# INTUG the value of roaming

- once exciting and highly praised
- now expected and taken for granted
- Wi-Fi hot spots are popular for data
- the cash cow will not last for ever
- multi-mode handsets appearing extending roaming beyond GSM

“limited” mobility is challenging GSM in many markets

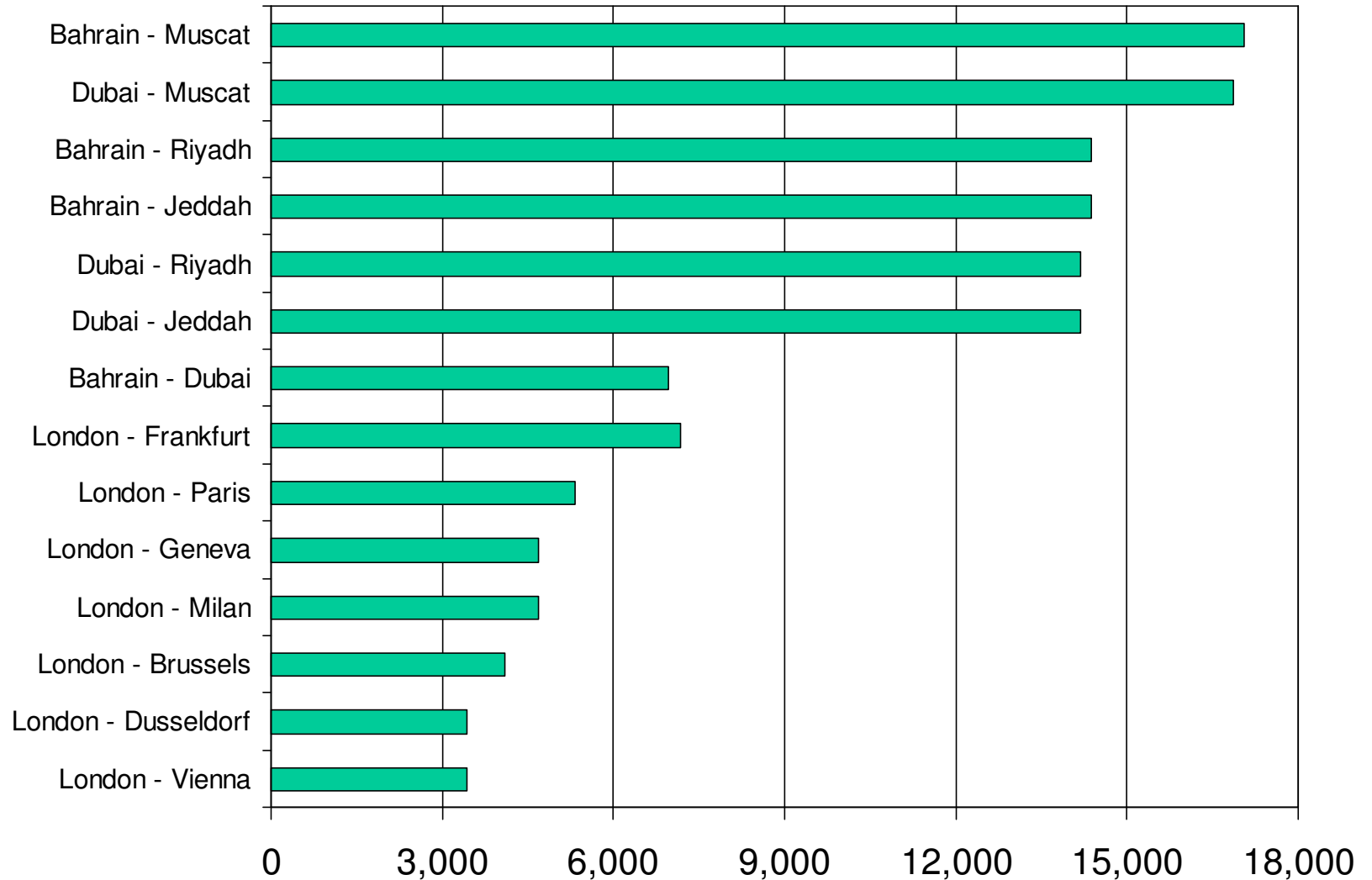
# INTUG leased lines

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- work item since 1974
- raised by INTUG at CCITT in 1979
- pressed European Commission to act
- remains a problem in terms of:
  - availability
  - discrimination against new entrants
  - excessive pricing
- essential to see the data
  - inexplicable variations
  - to see if they are (not) cost-oriented

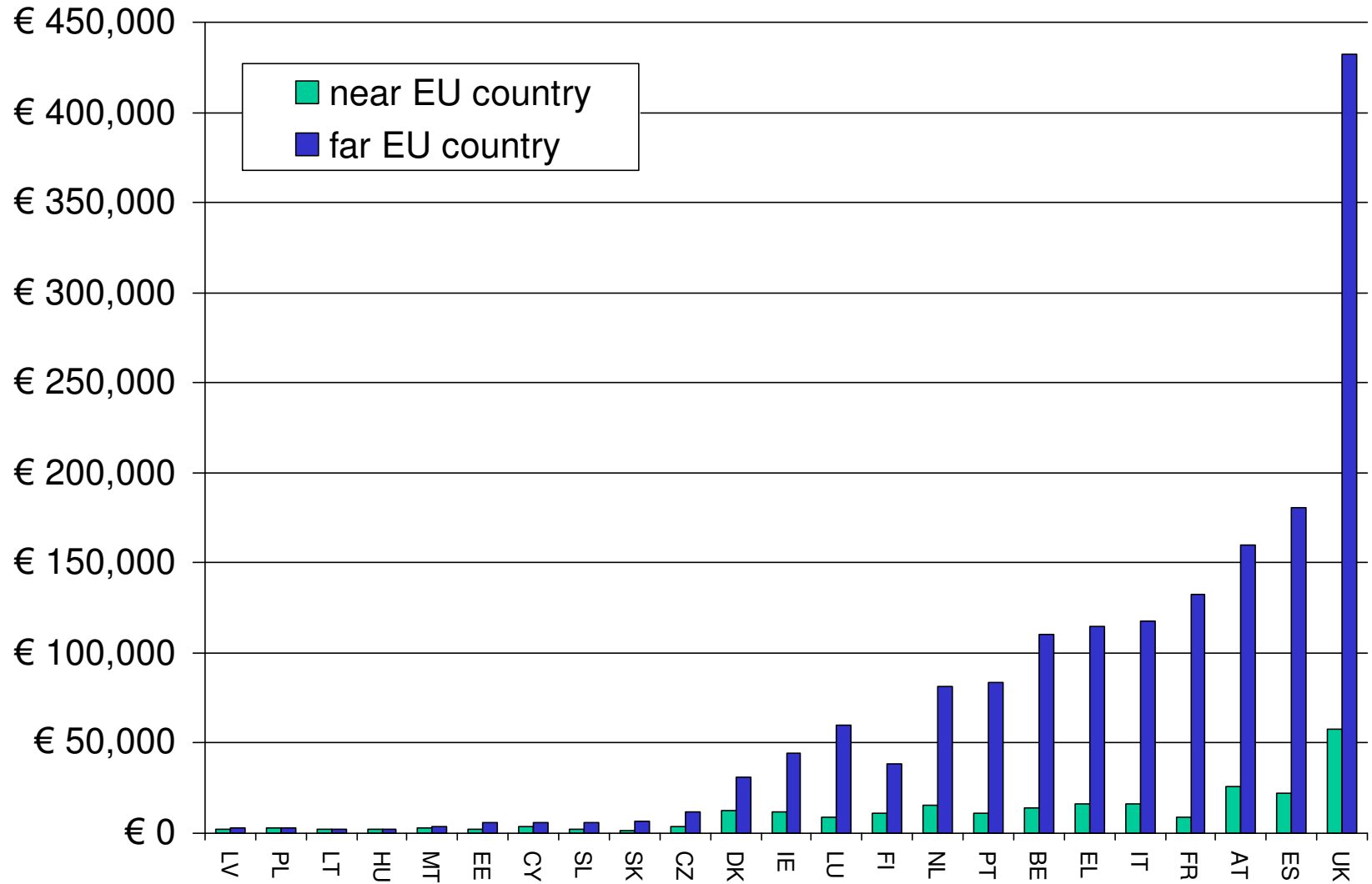
# INTUG international leased lines (2002)

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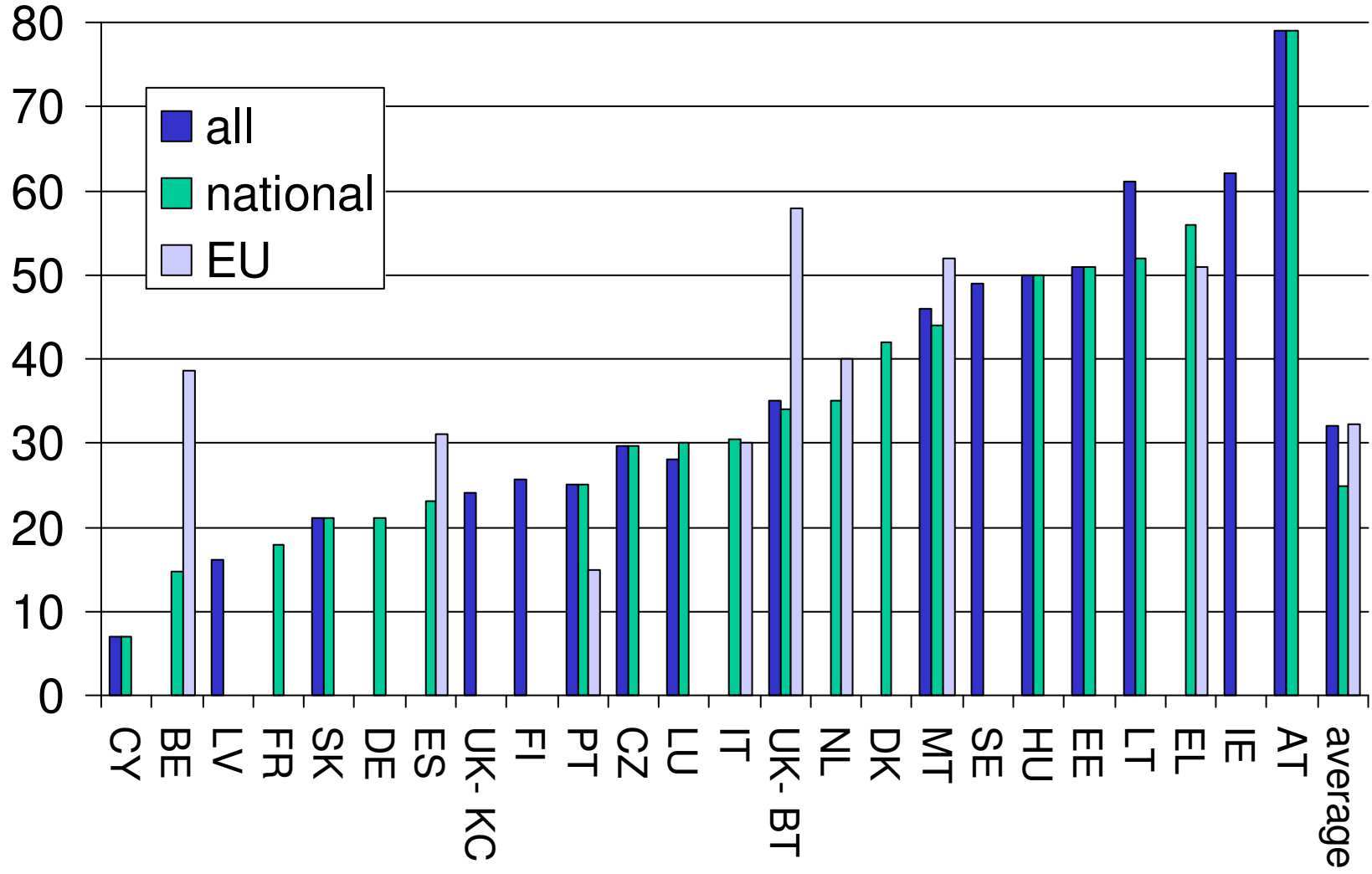
# INTUG 2 Mbps half-circuit

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# INTUG delivery period 64kbps (days)

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# INTUG IP-VPNs

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- rapid global deployment:
  - not just G7 or OECD
- IP-PBX sales overtaken traditional
- major uncertainties with national regulations:
  - often written years ago
  - do not refer to IP or modern capabilities
- problems with use of IPSec:
  - some technologies forbidden
  - some technologies requires

# INTUG mobility for employees

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- access to the full functionality of the VPN:
  - originating calls
  - terminating calls
  - conference calls
  - web-assisted calls
  - video conferencing
- away from business premises using:
  - dial-up over PSTN or ISDN
  - broadband Internet access (xDSL, FTTH, Wi-Fi and WiMAX)
  - cellular telephony (GSM, cdma2000, 3G)
- also to allow access for visitors from other countries, including foreign nationals

# INTUG quality of service

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- an essential part of all contracts
- very different attitudes amongst operators
- some good performers
- some very bad performers
  - ignore the issue
  - issue unrealistic contracts

# INTUG broadband

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- major area of revenue growth
- geographic centre in East China Sea
- enormous variations between countries
- still at early stages of evolution
- strong consumer focus
- very little interest in SMEs
- few SLAs available for corporates

# INTUG what does €25 buy?

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	<i>operator</i>	<i>up</i>	<i>down</i>	<i>days</i>
Hong Kong, SAR	HKBN	1000	20	4
Japan	Yahoo! BB	50	3	25
Belgium	Skynet Go	4	0.256	29
Singapore	Starhub	25	1	12

# INTUG leaders

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- Korea - KT Megapass
  - 20/4 Mbps KRW 39,900
  - 50/4 Mbps KRW 42,750
- Denmark - TDC
  - 512/128 kbit/s DKR 99 + 0.75 per MB
  - 8 Mbps DKR 799 per month (from 10/2005)
- Netherlands - KPN
  - “Go” now 1.5/0.256 Mbits/s (800/256) for € 79
  - ADSL 2+ announced

DKR 3.63 = SG\$ 1 = KRW 612

# INTUG broadband for homeworkers

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- no single operator can supply this
- country by country or region by region
- different technologies, speeds and help-desks
- requires a third party
- lowest common denominator is 512k downstream and 64k upstream

# INTUG national security

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- USA – the extension of the mandatory provision of wire-tapping capability (CALEA) to VoIP and broadband
- European Union – proposal for traffic data retention by all operators
- Indonesia – proposal for registration of pre-paid mobile customers

Solutions need to be systematic, cost effective, proportionate and to respect civil liberties.



# INTUG pre-paid cards

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- sold at many locations:
  - staff unqualified to assess documents
- need a secure system to gather, transfer and hold the data
- nothing to stop transfer of SIM cards between customers (voluntarily, loss and theft)
- some customers already able to roam into Indonesia with pre-paid roaming
  - what measures have been taken by the partners in Bridge Mobile Alliance?

# INTUG conclusions

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- need much more competition
- regulation trails technological developments
- service developments are constrained by:
  - absence or attenuation of competition (especially geography)
- politico-regulatory pressure from incumbents to end access regulations
- confusion about the value to users of:
  - mobile versus nomadic
  - mobile versus fixed

# INTUG issues

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- in an increasingly consumer driven market what does the business user do?
- can third parties get wholesale services to tailor business services?
- how should business communicate with its consumers as they adopt new technologies?

# INTUG thank you

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