INTUG

The Impact of Number Portability on Development of Fixed-Mobile Convergent Networks

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INTUG @ Informa 22 March 2006

www.INTUG.net

INTUG contents in today's keynote

- A brief introduction to INTUG
- Assessing the current operation of number portability between fixed - to - mobile and mobile - to - fixed networks
- Examining the likely impact that number portability will have on the development of fixed-mobile convergence
- Assessing the factors will drive number portability in convergent networks
- What will be the role of national regulators in ensuring a favorable condition for FMC portability?

INTUG what is INTUG?

- International telecommunications group, representing user views in regulatory fora, eg:
  - European Commission
  - OECD, ICC/UNICE
  - ITU, WTO, Alliance for Global Business
  - APEC TEL, CITEL
- Association of associations:
  - national user groups, eg CMA, BELTUG
  - multi-national corporations, eg Accenture
  - individuals, eg academics
- Formed 1974, eg ISR (Swift, SITA, Reuters)

INTUG our aims

- real and effective international competition
- genuine choice for users/seamless service
- lower prices/better value
- higher quality/fit for purpose
- innovative services
- constructive co-operation with:
  - international bodies
  - governments and regulators
  - operators and service providers
  - equipment manufacturers

INTUG our priorities

- open access to global mobile networks
- regulatory best practice
- liberalisation
- universal access /multi mode
- broadband
- leased lines
- IP telephony without traditional barriers
- numbering

INTUG current operation of FMC

- Assessing the current operation of number portability between fixed - to - mobile and mobile - to - fixed networks

INTUG examples

- very few examples of portability between fixed - to - mobile and mobile - to - fixed networks
  - some niche in US and South-Korea
- personal and corporate numbers deliver the service that ‘undercovers’ and converts the current geographic and mobile numbers (e.g. 088 in The Netherlands = corporate number including mobile)
- FMC is less interesting as always the operators and SP’s like to get more money from the users, or at least the same as now

INTUG numbering priorities in FMC

- non discriminatory provision and use
  - availability of numbers for all users and all operators
  - assignment for all (new) services and all (new) applications
- **portability**
  - **ensuring portability for fixed and mobile numbers**
  - **minimizing obstacles, delays and charges for portability**
- transparency
  - clarity in the links between tariffs and numbers
  - mechanisms to inform users about costs related to numbers
  - ensuring call barring for expensive number ranges
- availability of multi-country and global numbers
  - supra-national numbering ranges at cost-effective prices
  - reforming the existing rigid "universal" numbering ranges

INTUG uncompetitive mobile markets

- extremely complex tariff schemes
  very high termination rates
- outrageous roaming charges
- blocking of alternate technologies
- 3D on number portability:
- - deny
- - delay
- - degrade

INTUG 3G's

- Games, Gambling, Girls
    - Badlands

      "first and foremost, you're going to die"
    - Ladbrokes Balls
    - Playboy on 3 (Australia, UK etc.)
- the only successful 3G markets are Japan and South Korea:
    - millions of customers
    - Geeks, Games and Gadgets
    - significant additional revenues
- was supposed to be one extra operator, but now mostly it's more of the same

INTUG impact of number portability

- Examining the likely impact that number portability will have on the development of fixed-mobile convergence
  - Ecosystem
  - Identities
  - Payments
  - Ubiquitous

INTUG ecosystem

- range of networks
  - GSM, CDMA, UMTS,
  - WLL (/PAS), WiFi, WiMAX,
  - DAB, DVB, DMB,
  - fixed broadband with WiFi end
- range of services
  - messaging, voice, video
  - streamed content
  - location bases services (?)
- range of devices
  - PC, PDA
  - games console
  - set-top box

INTUG range of identities

- telephone number(s)
  - real
  - temporary (e.g. local SIM-card)
  - virtual
- handset and SIM card (IMEI, IMSI, etc)
- IP adresses (real or mapped)
- personal:
  - social security, passport, identity cards
  - credit cards
  - frequent flyer

INTUG payments

- tied to numbers
- inaccuracy of bills
- premium rate ‘scams’
- third party billing
- mobile phone is also a banking instrument
- purchases:
  - added to monthly bill
  - deducted from stored value
- E-Money directive

INTUG ubiquitousness

- Japanese and Korean vision
- services and commerce
  - but multiple networks
- identity is **not** tied to the network
- many operators are looking for vertical integration
- many service providers want to use multiple networks
- what are the business models?
- where is "any time, any place, any service, any network"? (European Commission)

INTUG current situation B2B

- incomplete coverage - HQ, branch, home
- lack of infrastructure reach
- lack of pan-European seamless service
- long term uncertainty vs outsourcing
- vertical vs horizontal integration
- legacy inertia/double running costs
- migration risk/resource shortage
- personal numbering by (expensive, delayed) forwarding of incoming calls & messages
- churn by permanent looking for best offer

INTUG churn is good

- ability to switch supplier is a sign of a properly functioning market
- operators trying to lock customers in:
  - handset subsidies
  - network specific handset designs
  - tariff schemes
  - walled gardens
- but:
  - unattractive to customers
  - invites responses from NRA's and NCA's

INTUG impact

- so, the impact that number portability will have on the development of fixed-mobile convergence is likely high at short term
- the impact at long term is depending of both
  - the needs and behavior of the next generation customer
  - the innovation of technology that could pass the number portability in favor of names and object
- impact is depending of the driving forces of fixed-mobile conversions

INTUG driving factors for FMC

- Assessing the factors will drive number portability in convergent networks
  - Users need
  - Users ladder of interest

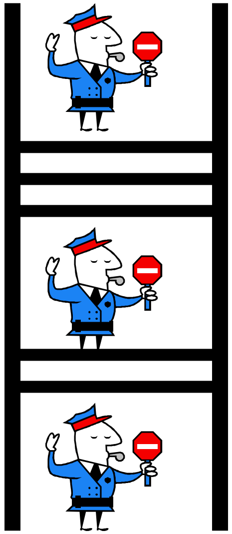
INTUG users need

- trans-national services
  - without roaming charges
- fixed mobile convergence
  - without excessive termination rates
- control of our identities
  - we (users) have created their value
  - we make calls
  - we disseminate the numbers and so and so generate inbound traffic
- control of our privacy
  - we decide when we use where which number
  - we don’t like to be target of anyone's survey

INTUG ladders

- Only work when:
  - you can reach the bottom rung
  - the top rung reaches far enough
  - there are no gaps/broken rungs
  - rungs aren't removed if you're on
  - the ladder is leaning against wall

- Are only needed when:
  - you can't reach target from ground
  - you can't climb up the wall
  - there's no other platform to stand on



PS Ladders are illegal in the UK for decorating above two floors!

INTUG users' ladder of interest

- seamless IP connectivity internally
- basic services – speech, email, intranet, IM
- extranets to leverage ASPs
- remote access to leverage ISPs
- mobile/wireless access/integration (FMC)
- federated packaged solutions
- flexibility to insource/outsource
- and Next Generation Networks/Services
  - these must foster not frustrate competition

How much interest in number portability?

Users want to own their number for all services

INTUG looking ahead

- VoIP is an increasing issue:
  - very low prices and costs (quality don't mind)
  - virtual telephone numbers
  - ever wider range of services over IP
  - importance of national numbers disappears into the IP cloud
  - dialing of numbers is declining in importance
  - ENUM will be supposedly passed
  - owning your number (like domain) gets popular
- multi channel, media multi, multi mode
- next generation users (digi-kids) learned their disruptive way to deal with the 'fossils'

INTUG best 'driving' model for users

- infrastructure competition where it makes economic sense for operators to invest
- low barrier to entry for entrants/competitors
- virtual network operators/service providers able to compete on fair playing field
- ability to move seamlessly at the same speed in each member state
- support of extended supply chain/consortia using different service providers
  - users have been asking for this for decades
  - the Loch Lomond declaration never delivered!
    (early 1990s commitment by GVNS operators)

So: driving starts with moving in users direction

INTUG role of national regulators

- What will be the role of national regulators in ensuring a favorable condition for FMC Portability?

INTUG legal position

- EU binding obligation has required potability since 25-07-2003
- fixed and mobile
  - DK and CH have provisions for fixed to/from mobile
  - technology neutrality, so xG
  - no obligations on user ID's, IP adresses or the like
- competion law is very clear on
  - walled gardens
  - rigged menu systems (EPG's and CRS's)

INTUG impact portability to FMC

- member states moving at different speed
- economic models and national logic different
- implementation and transposition patchy
- market reviews expose different status
- no pan-European services
  - trans-national mark-ups, eg. leased lines
  - punitive cartel charges for mobile roaming
  - incomplete cover by outsourcers/integrators
  - final mile egress/access uncompetitive

INTUG role of national regulators

- unbundling number = operator / SP

  already started with
  - service numbers
  - corporate numbers (including mobile devices)
- more transparency in portability costs
- less difference between fixed, mobile and IP (it's only technology behind the curtains)
- regulatory uncertainty adds huge cost
  - multiple service implementation types
  - different impacts on data privacy legislation

But how to deal with eg. EU-wide FMC number portability?

INTUG conclusions

- number portability in FMC is “natural” in developing communications-technology
- competition and portability are more talked about than experienced:
  - most is lost in the bundling of services
- number portability should not be related to technology but to user’s perspective
- 3G included, without regard to serious threats to 3G from alternative technologies

When will the user sit in the driving seat?
(EU)

INTUG thank you

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Capgemini
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