Mobile Number Portability: Case Finland

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Outline

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  – MNP and stakeholders

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  – Regulation, technical solution
  – Market impacts of MNP

• Conclusions
Introduction

• Mobile Number Portability (MNP)
  = the ability of mobile subscribers to switch between service providers while retaining their original mobile phone numbers

• Number portability types:

<table>
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<tr>
<th>Portability type</th>
<th>Service portability</th>
<th>Service provider portability</th>
<th>Location portability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aka</td>
<td>Operator portability</td>
<td>Geographic portability</td>
<td></td>
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<tr>
<td>Examples</td>
<td>Fixed-to-mobile PSTN-to-ISDN</td>
<td>Mobile-to-mobile, fixed-to-fixed</td>
<td>Fixed number portability inside a local exchange area</td>
</tr>
</tbody>
</table>
MNP and stakeholders

- **End-user**
  - reduces switching costs
  - makes it more difficult for to know which network one is calling to

- **Network operator**
  - additional costs: investments and labour

- **Service operator**
  - increases churn rates
EU regulation


  Member states shall ensure that all subscribers of publicly available telephone services, including mobile services, who so request can retain their number(s) independently of the undertaking providing the service

• Does not apply to fixed-to-mobile portability

• Member countries required to implement MNP by July 25, 2003.
US regulation

• Telecommunications Act of 1996:
  – each LEC has the duty to provide “the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another”
  – Wireless Local Number Portability (WLNP)
  – Implemented in November 2003 / May 2004
MNP Implementation Status

1997: Singapore
1998: Hong Kong, U.K., Netherlands
1999: Switzerland, Spain
2000: Denmark, Sweden, Norway, Portugal, Australia
2001: Italy, Belgium, Germany
2002: Finland, France, Austria, Greece, Ireland, Iceland, Luxembourg
2003: Lithuania, Slovakia
2004: South Korea, USA (as whole)
Technical solutions

• Number portability database (NPDB)
  – keeps track of the ported numbers and their respective service providers
  – centralized or distributed
  – typically managed by a consortium of mobile network operators

• Routing methods
  – Call routing =>
  – SMS and MMS differently

<table>
<thead>
<tr>
<th>Direct routing</th>
<th>Indirect routing</th>
</tr>
</thead>
<tbody>
<tr>
<td>All call query</td>
<td>Onward routing</td>
</tr>
<tr>
<td></td>
<td>Call drop back</td>
</tr>
<tr>
<td></td>
<td>Query on release</td>
</tr>
</tbody>
</table>
Case Finland

- MNP implemented in July 2003
- Exceptionally high number of ported numbers
  - Over 1000.000 in one year
- Market impacts?
- What makes Finland different from other countries?

Case Finland: Numpac Oy

- Manages the "Master system", i.e. the NPDB
- Owned by TeliaSonera, Elisa, Finnet, and Saunalahti

MNP-related fees:

- Receiving operator
  - Administrative fee per ported number
  - Yearly + monthly fee per ported number
- Donor operator
  - Yearly + monthly fee
- Numpac

Call Routing (Number ported from A to B):

Source: Numpac, 2004
Market impacts

- Increased service operator market share
  - from 98.7% to 87.9%

- Increased churn
  - from 15% to 25% annual churn

Sources: Operator annual and quarterly reports
Reasons behind the MNP effect

• Price war
  – Competition on price instead of differentiated services
  – Heavy marketing campaigns, free giveaways and airtime
• Ban on handset subsidies
  – As well as SIM-locked phones and long service contracts
• Single-rate call plans
• Small number of prepaid customers
• Easy and costless MNP process for end-users
Conclusion: Differentiate!

- MNP does not generate churn, it only removes one barrier from the way of free competition
- To keep the churn rates low, operators should offer unique and valuable mobile data services rather than carry on the price war
- Easier said than done?
Thank you!

Comments and questions, please ☺