

Number Portability

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Digicel

The Bigger, Better Network.

Number Portability

- Focus on Mobile Number Portability
- Pre-implementation
- NP costs
- Potential benefits
- Assessment of benefits – Influence of market conditions
- Cross-Portability
- Conclusions

Number Portability

- NP appears attractive at first glance;
- Recent evidence from Independent consultants have cast doubt on potential benefits particularly for smaller countries.

Number Portability – Pre-Implementation

- A detailed cost benefit analysis should be undertaken; this would enable the best assessment of whether a proposal is in the public interest or not;
- The rationale behind this ‘test’ is to avoid a situation where operators are required to make significant investments – where the benefit to consumers is marginal or non-existent;
- Customer demand is important;
- Evidence shows in larger countries predicting cost benefit analysis of NP has been way off target.

Performance of NP Systems

- Mobile Number Portability Systems; costs versus actual costs;
- Porting time is a factor as it is a complex process;
- Porting charges for end users – high charges may result in lower adoption rates.

(Source: Ovum)

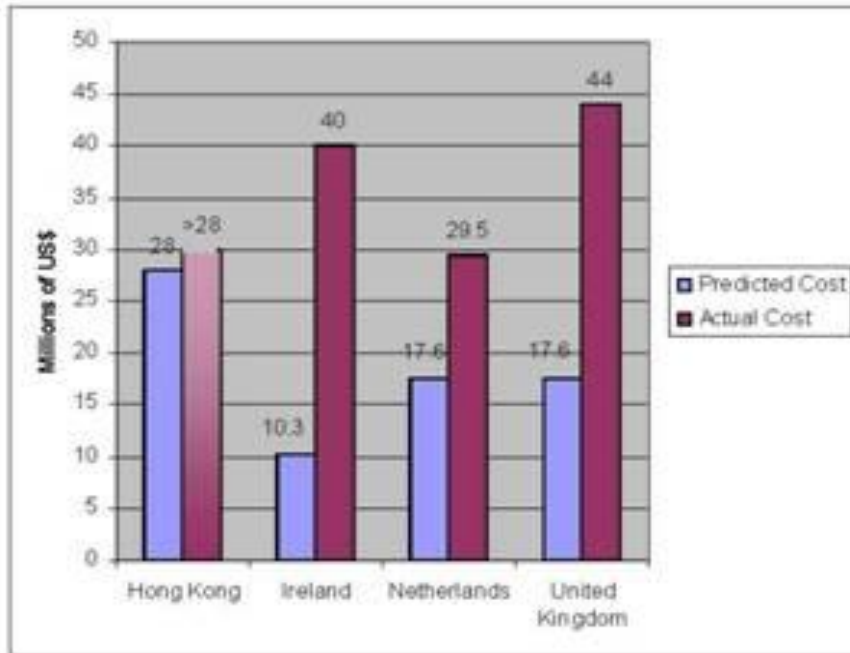
Note: At least a small charge must be levied for porting. Due to the high costs involved operators must be allowed to recoup this money.

There is also a risk if the cost per sub is too high you may have the problem with subs that cost more than they generate in revenue

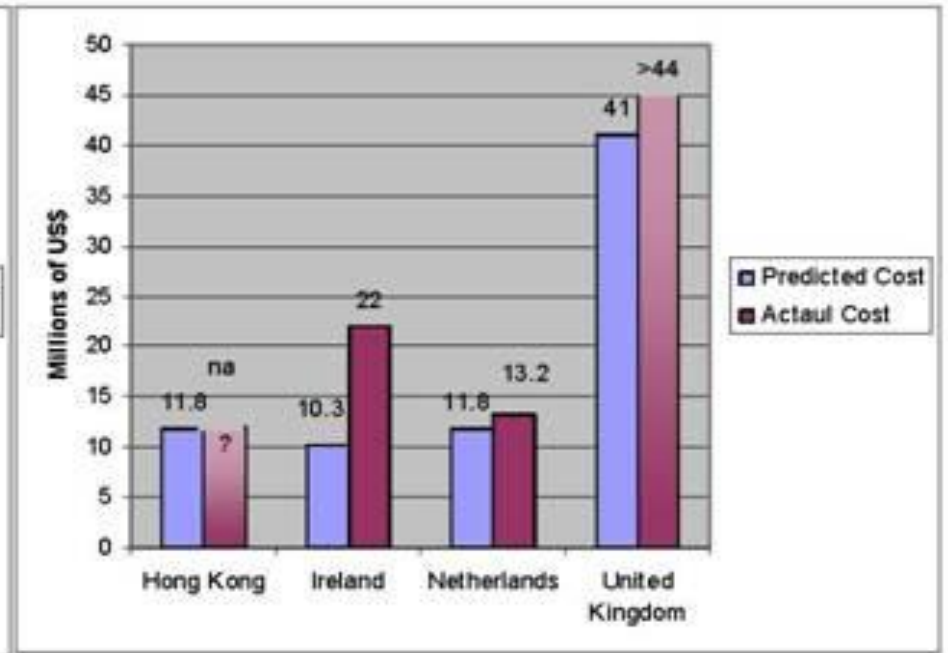
NP Costs

Operators who have implemented NP have often underestimated the cost; difficult to get reliable cost predictions (Source: Ovum).

Predicted and Actual Set-up Cost of Mobile Number Portability



Predicted and Actual Porting Cost of Mobile Number Portability



Argentina to have MNP in operation by December 2011

- MNP regulation was passed by the telecoms ministry (Secom) in August last year. The cost for mobile operators to implement the required MNP systems is expected to top **US\$40million** and will be entirely met by operators.

(Source: Global Mobile Daily 24th Jan 2011)

Cost of NP for Mobile Operators (1)

Solution and development costs

- Preparatory work needed before NP can be implemented in practice is lengthy and highly resource intensive;
- Technical issues are highly complex. Example - in the UK and Switzerland the process took 17 and 29 months respectively;

Cost of NP for Mobile Operators (2)

System set-up costs – 3 main areas

- a. Network and system modifications;
- b. Testing and functionality;
- c. Initial reconfiguration/updating of billing and administration systems.

Cost of NP for Mobile Operators (3)

- Data base costs - for small islands the database may be off-shore. Example – figures from vendors for an off-shore central data-base option would incur annual costs in the order of US \$370,000;
- The costs that each operator has to incur within its own network for implementation (several hundred thousand for the initial costs for each operator);

Note: Implementation costs are largely independent of the number of network users. This fact results from an absence of economies of scale which is the primary reason why MNP will often be uneconomic for small countries

Cost of NP for Mobile Operators (4)

Licensing costs

- For small islands Vendor licensing costs per annum can be approaching US \$500,000.

Cost of NP for Mobile Operators (5)

Billing software provider costs include for example:

- a. Re-rating of roaming charges;
- b. A management process for the issuance of new numbers to concessionaires;
- c. Re-designing the zoning and processing on all data warehouses;
- d. Major adjustments will be made to a number of products such as Credit U, Credit me whereby Digicel subscribers can send credit to each other.

Cost Benefit Assessment for NP

NPV (benefit per port – cost per port) X no of porters > Set up costs

- The vast majority of benefits are associated to the porting customer, hence overall benefits are proportionate to the number of ports;
- If the NPV calculation is carried out with a realistic (or even optimistic) assessment of the benefits of NP for small countries the overall net positive NPV test would not be passed;
- The set up costs would outweigh the NPV of any benefits at least several times over.

Potential Benefits

- The vast majority of benefits have been shown to accrue to those who change their provider and avoid changing their number;
- Cost-benefit studies have shown that these benefits are now understood to have been **OVERSTATED** due in part to insufficient account being taken of the increasing ease with which private users can notify their circle of callers of any number change (e.g. through email and SMS).

Level of Benefits

- Ecuador – less than 0.5% of the subscriber base ported their number in the first year (*Source: Supertel, Regulator for Ecuador, Nov 2010*);
- According to Supertel subscribers were able to port their numbers twice a year for free - low demand;
- Peru implemented MNP in January 2010; in the first year there was less than 0.4% take up (*Source: Global Mobile Daily 31st Jan, 2011*).

Assessment of Benefits – Influence of Market Conditions

- NP increases the willingness of customers to switch to another provider and thus in theory can potentially make competition between operators more intense;
- NP therefore requires that several competitive alternatives exist in order for subscribers to take full advantage;
- In most Caribbean countries there are only 2 mobile providers so the effect of NP would be less significant compared to the larger countries with 4 or 5 operators .

Level of Benefits – Substitutes for NP

- Many users in the Caribbean have active SIMs with both Digicel and C & W;
- **Multiple handset ownership is a substitute for NP;** therefore reduces the demand for porting numbers;
- **MNOs in the Caribbean lock their mobile handsets** to their respective networks so that handsets can be sold at less than cost (e.g. Postpaid). NP customers could face additional handset switching costs which would reduce the demand for NP.

Level of Benefits – Other Considerations

- Consideration on the impact on quality of service to end users given the extensive technical risks involved.

Cross- Portability

Fixed to Mobile NP has serious challenges

- Where fixed to mobile NP is mandated, customers no longer have the ability to distinguish between fixed and mobile calls which could lead to reduced customer ability to control their spend;
- Price differences between calls to fixed and mobile phones would be more difficult for customers to determine their costs simply by referring to the number;

Cross- Portability (2)

- There would also be a reduced quality of service. Mobile subscribers expect certain services to be available , SMS/MMS, roaming etc. Where a customer switches from mobile to fixed and retains their number , the functionality will not be replicated on the fixed network;
- To the best of our knowledge, there has been no implementation of fixed-mobile NP anywhere in the world where Calling Party Pays regime exists for the aforementioned reasons.

Reducing benefits of NP for Mobile Users

- Easy for Mobile users to transfer numbers between mobile phones and to simply save new numbers into their phones when called;
- MNO can utilise SMS text messaging to notify a change of a particular number;
- MNO can provide callers to the old number a message about the person's new number;
- Emails can be used to notify a change of number;
- Messenger and social networking sites e.g. Facebook;
- The **'culture' of mobile users** is to store names on the handset rather than remembering the actual mobile number.

NP - What the experts say

- Local market circumstances should be taken into account;
- NP to date had mixed results and has been disappointing in many countries (*Source: INTELECON, Jamaica regulator consultant*).

NP - What the experts say

- The delays experienced in implementing MNP illustrates the complexity of both legal and technical issues that have to be addressed before MNP can be introduced;
- We believe that the adoption rates for MNP have been disappointing in all countries other than Hong Kong (*Source: Ovum*);
- NP creates serious technical challenges for the industry. While NP benefits subscribers it presents service providers with significant complexity and additional costs (*Source: GSM Association*).

Where are we now with NP?

- Barbados – Regulator undertook a detailed cost benefit analysis (current level of competition; costs of switching providers; considered whether customers actually viewed the inability to retain their number as a major inconvenience);
- Cayman – Public consultation 2008;
- Bermuda – Public consultation 2008;
- Trinidad – Public consultation 2010;
- BVI – Feasibility study 2010.

NP has not been implemented in these countries

Where are we now with NP? (2)

Jamaica Regulator Consultant (Intelecon: July 2010)

- Hong Kong - best implementation - small operators lost subscribers to large operators
- Ireland - little effect on market initially but increasing as shares become more even
- Australia - overall less effect on market than expected
- South Africa - very low porting rates, handset subsidies more important to customers it appears
- No clear evidence that it helped competition in any of the other countries
- "MNP does not create competition, it helps it - not a big effect"

Conclusions (1)

- Decisions to implement NP should be founded on a **rigorous cost benefit analysis**;
- NP involves significant set-up and ongoing costs;
- Once information on all the relevant costs have been considered, would the benefits of implementing NP outweigh the actual costs? (as opposed to the theoretical costs);
- Costs would have to be recovered from a relatively small subscriber base;

Conclusions (2)

- Economies of scale and ability to pass on costs to a relatively small subscriber base makes NP uneconomic for smaller countries;
- Market conditions in the Caribbean such as, two mobile networks; prevalence of locked handsets; widespread multiple operator handset ownership means significantly reduced benefit of NP for subscribers;
- Mobile culture - store numbers and utilising mobile technology such as, SMS and email for notification reduces the benefits of NP.

Question:
How does MNP promote ICT development?

Thank you for your attention!

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