

Response to Consultation & Specification

Response to Consultation & Specification on Number Portability in the Fixed and Mobile Sectors (Response to Consultation Document 07/21)

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1 Executive Summary

The Commission for Communications Regulation ('ComReg') published the 'Consultation on Number Portability in the Fixed and Mobile sectors' on 10th April 2007 (Document No. 07/21). This Consultation followed on from the further clarification provided by the European Court of Justice ('ECJ') in the 'Mobistar' case on the interpretation of Article 30(2) of the Universal Service Directive (transposed in Ireland by Regulation 26(2) of the Universal Service Regulations). In essence, this review sets out a clear interpretation of cost orientation in the context of Number Portability ('NP'). It specifies the allowable costs for the pricing of interconnection related to the provision of NP for the purpose of ensuring that pricing for interconnection related to the provision of NP as provided for in Regulation 26(1) of the Universal Service Regulations is cost oriented. It also identifies clearly who pays the NP charge and establishes whether retail users should pay a direct charge for NP. ComReg is of the view that the principles underpinning this review and specification should relate to both fixed and mobile number porting to ensure that there is equivalent treatment of costs for similar services.

The deadline for receipt of responses to the consultation was 25th May 2007. There were eight responses received to the consultation as detailed in the Introduction section below.

An analysis was performed by Cullen International, on ComReg's behalf, in relation to the cost of Mobile Number Portability ('MNP') in other jurisdictions. The detail of this analysis is included in the Appendix to this document. It revealed that Ireland had one of the highest mobile number porting charge amongst the countries surveyed. It was also noted that in those countries where a porting charge was levied, the gaining operator paid the charge.

Following consideration of the responses received, ComReg has reached the conclusion that firstly, the allowable costs for the pricing of interconnection related to the provision of NP should be limited to the incremental (i.e. short term volume dependent) administrative cost to the donor operator of per-line enabling/transaction costs, based on a fully efficient number porting process. This is for the purpose of ensuring that pricing for interconnection related to the provision of NP as provided for in Regulation 26(2) of the Universal Service Regulations is cost oriented. Secondly, ComReg has concluded that there should be no direct charges to subscribers for NP.

Following from this specification, compliance with the new requirements to ensure cost orientation will be mandatory for all operators. Simply, ComReg intends to monitor compliance with these new requirements as necessary. ComReg will request price submissions from operators as appropriate.

2 Introduction

ComReg is responsible for the regulation of the Irish Telecommunications sector and included in this remit is the regulation of Number Portability ('NP').

NP is a facility which allows subscribers to retain their existing fixed or mobile number when moving between network operators. It is a regulatory obligation under Regulation 26(1)¹ of the Universal Services Regulations². NP was first introduced in the fixed sector in 2000 with the introduction of Non-Geographic Number Portability³ ('NGNP') and Geographic Number Portability⁴ ('GNP'). It was subsequently introduced to the mobile sector with the launch of Mobile Number Portability ('MNP') in 2003.

The 'Consultation on Number Portability in the Fixed and Mobile sectors' (Document 07/21) was published on 10th April 2007. Operators were invited to answer ten questions so that ComReg could set out a clear interpretation of cost orientation in the context of NP. This included the proposal to issue a specification to all relevant undertakings specifying the allowable costs for the pricing of interconnection related to the provision of NP for the purpose of ensuring that pricing for interconnection related to the provision of NP as provided for in Regulation 26(1) of the Universal Service Regulations is cost oriented. Secondly, to clearly identify who pays the NP charge, to establish whether retail users should pay a direct charge for NP and issue a specification to all relevant undertakings in relation to this.

| Hutchinson 3G Ireland | Mobile network operator |
|----------------------------|--|
| Vodafone (Ireland) Limited | Mobile network operator |
| O2 Communications | Mobile network operator |
| (Ireland) Limited | |
| Meteor Mobile | Mobile network operator |
| Communications Limited | |
| Tesco Mobile | Mobile network operator |
| eircom Limited | Fixed network operator |
| BT Communications | Fixed network operator |
| Ireland Ltd. | |
| ALTO | An association representing national and |
| | international operators in the fixed, mobile |
| | wireless, and cable sectors |

Eight responses to the consultation were received as detailed below.

¹ Regulation 26(1) states that "An undertaking providing a publicly available telephone service, including a mobile service, shall ensure that a subscriber to such service can, upon request, retain his or her number independently of the undertaking providing the service – (a) in the case of geographic numbers, at a specific location, and (b) in the case of non-geographic numbers, at any location'. This paragraph shall not apply to the porting of numbers between networks providing services at a fixed location and mobile networks."

² S.I. No. 308 of 2003 European Communities (Electronic Communications Networks and Services) (Universal Service and Users' Rights) Regulation 2003.

 $^{^{3}}$ Non-geographic number portability refers to a situation where a customer who has had allocated to him or her, a nongeographic number associated with a particular type of service (such as 0800 freephone, a 07 personal number, or a 090 premium rate number) can retain that number when changing to a different operator or service provider offering a service of the same or similar type.

⁴ Geographic Number Portability refers to a situation where a customer who has had allocated to him or her, a geographic number can retain that number when changing to a different operator or service provider offering a service of the same or similar type.

All points raised by respondents have been considered and are referred to as appropriate in this document. With the exception of material marked confidential, the written comments of respondents will be published separately on ComReg's website.

3 Legal Background

Since July 2003 Regulation 26 of the Universal Service Regulations has been in force and provides that:

"(1) An undertaking providing a publicly available telephone service, including a mobile service, shall ensure that a subscriber to such service can, upon request, retain his or her number independently of the undertaking providing the service (a) in the case of geographic numbers, at a specific location, and (b) in the case of non-geographic numbers, at any location. This paragraph shall not apply to the porting of numbers between networks providing services at a fixed location and mobile networks.

(2) The Regulator may specify obligations for compliance by an undertaking to which paragraph (1) relates for the purpose of ensuring that pricing for interconnection related to the provision of number portability as provided for in paragraph (1) is cost oriented and that direct charges to subscribers, if any, do not act as a disincentive for the use of these facilities.

(3) Obligations under paragraph (2) may include a requirement that there shall be no direct charges to subscribers for number portability. Where retail tariffs for porting of numbers are permitted, the Regulator shall ensure that such tariffs may not be imposed in a manner that would distort competition and for this purpose may specify obligations to be complied with by an undertaking."

Regulation 26 implements Article 30 of the Universal Service Directive^{5.}

In July 2006, the European Court of Justice ('ECJ') in the 'Mobistar'⁶ case provided further clarification on the interpretation of Article 30(2) of the Universal Service Directive (transposed in Ireland by Regulation 26(2) of the Universal Service Regulations).

The key clarification is as follows:

"Pricing for interconnection related to the provision of number portability, as referred to in Article 30(2) of Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive), concerns the traffic costs of numbers ported and the set-up costs incurred by mobile telephone operators to implement requests for number porting.

Article 30(2) of Directive 2002/22 does not preclude the adoption of a national measure laying down the specific method to be used in calculating costs and which fixes in advance and on the basis of an abstract model of the costs maximum prices which may be charged by the donor operator to the recipient operator as set-up costs, provided that the prices are fixed on the basis of the costs in such a way that consumers are not dissuaded from making use of the facility of portability."

In essence, the Consultation had two main purposes. Firstly, to set out a clear interpretation of cost orientation in the context of NP and to issue a specification to all relevant undertakings specifying the allowable costs for the pricing of interconnection related to the provision of NP

⁵ Directive 2002/22/EC of the European Parliament and the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services.

⁶ C-438/04, reference for a preliminary ruling under Article 234 EC from the Cour d'appel de Bruxelles (Belgium), made by decision of 14 October 2006, received at the Court on 19 October 2004, in the proceedings Mobistar SA v. Institut belge des servies portauz et des telecommunications (IBPT).

for the purpose of ensuring that pricing for interconnection related to the provision of NP as provided for in Regulation 26(1) of the Universal Service Regulations is cost oriented. Secondly, to clearly identify who pays the NP charge, to establish whether retail users should pay a direct charge for NP and issue a specification to all relevant undertakings in relation to this.

4 Setting of a wholesale NP charge- interpretation of the cost orientation obligation

4.1 Relevant Cost Categories

4.1.1 SUMMARY OF CONSULTATION PROPOSAL

In the consultation, NP related costs were categorised as follows:

- General system provisioning costs: These are once-off costs in modifying network and support systems to enable the inter-operator product and are independent of operator demand.
- **Per-line enabling/Transaction costs:** These are the operating and administrative costs of implementing NP facilities.
- Central Database Reference Costs: These are costs incurred by operators which require the use of a centralised hub or central reference database. There are two types of costs involved, the systems costs in the set up and developing of the database itself, and the annual costs of subscribing and maintaining the database. Included are 'IN' Costs and 'Look Up' Costs.
- **Ongoing Routing Costs:** This category of costs includes the cost of adding a routing prefix (the re routing element) and the cost of any additional routing between networks (the conveyance element) that may be required when a call is being routed to a ported number.

In relation to the treatment of these costs, ComReg proposed the following:

In relation to the **general system provisioning costs** ComReg proposed that these should not form part of the NP charge and that each operator should pay their own general systems provisioning costs. ComReg further added that portability is intrinsic to a fully competitive telecommunications industry and that each participant must make its network NP capable as a condition of entry. Furthermore, to allow these costs to be recovered on a pertransaction basis could introduce a degree of instability in pricing since these costs are, by definition, fixed in the short term while volumes are not. This last consideration could lead to a situation where prices for portability could be set at excessive levels by donor operators and might thereby dissuade consumers from making use of the facility.

In relation to the **per-line enabling/transaction costs** ComReg identified three elements of those costs incurred when porting an individual number from one operator to another: (i) The incremental⁷ administrative cost to the donor operator of exporting the number; (ii) The incremental administrative cost to the recipient operator of importing the number; (iii) The cost of changing routing data for all operators who carry out re-routing functions. ComReg proposed that only the incremental administrative cost to the donor operator of a per event basis. ComReg believed that this approach reflected the principle of cost causation in that a cost is incurred by the donor operator at the point of issuing a port order and the recipient operator who benefits from the transaction should then pay an appropriate charge.

⁷ By 'incremental', ComReg means costs which are short term volume dependent. Costs which are not short term volume dependent should be included in the category General system provisioning costs (above).

In relation to the **central database reference costs** ComReg considered that the database set up costs should be treated on the same basis as the general system provisioning costs as discussed above. Much the same reasoning as applied to these costs also applied here i.e. stability of pricing is best assured by including only variable volume related costs.

In relation to the **ongoing routing costs,** ComReg considered that it would be difficult to devise a mechanism to recover these costs as part of an up front charge and that it would be simplest to recover these using normal interconnection charging principles currently in place.

In summary, ComReg is of the view that only the incremental administrative cost element of the per-line enabling/transaction costs should be recovered through wholesale NP charges.

4.1.2 CONSULTATION QUESTION

Q.1. Do you agree that the above cost categories are appropriate to the development of costing rules for Number Portability? Do you believe that the categories identified above are clear and unambiguous?

4.1.3 VIEWS OF RESPONDENTS

The majority of respondents agreed that the cost categories identified by ComReg were appropriate to the development of costing rules for NP. In addition these respondents also believed that the categories identified were clear and unambiguous.

One respondent considered that ComReg should provide further clarity in relation to the treatment of the costs and the scope for allowable costs for NP. Another respondent disagreed that the cost categories were appropriate to the development of costing rules for NP and added that ComReg should provide further clarity and detail on the cost categories for both the fixed and mobile sector. One other respondent commented that the consultation covers three quite distinct services each with individual characteristics and therefore it is necessary that there are different treatments of costs in pricing decisions. The three distinct services identified by this respondent included mobile numbers ported between mobile networks, geographic numbers ported between fixed networks and non-geographic numbers ported between fixed networks.

One respondent queried why ComReg now considered it necessary to revisit the issue of appropriate charging principles of MNP as the existing MNP charge was agreed by the mobile industry, in a process overseen and driven by ComReg, prior to the launch of MNP in 2003. It pointed out that industry has seen a very high level of take-up of the MNP facility and the rapid growth in operator customer base has demonstrated that competition has not been materially constrained by the level of the present donor charge. The respondent also added that as there was no relevant competition problems identified and with the competitive conditions in the market being robust that it was strongly of the view that there was no ground for conducting such a review of the MNP charge. This respondent then commented on the fact that ComReg should provide further clarity in relation to the treatment of costs and the scope for allowable costs and believed that the description of the cost category of 'General System Provisioning Costs' mis-characterised the expenditures incurred in developing and modifying systems and processes as being purely one-off costs, unrelated to porting volumes. It considered that many of the costs covered by this category were in fact ongoing costs, some of which were related to the volume of outgoing ports which operators are required to facilitate (it gave the examples of recurring costs associated with the replacement of equipment and costs incurred periodically in expanding the capacity of mobile operator's porting systems). It further commented that the costs

associated with facilitating the integration of mobile market entrants into the existing industry MNP system should also be considered for inclusion in the cost categories identified by ComReg. It also added that those system provisioning costs that are related to underlying porting volumes must be included within the allowable costs in addition to the 'Per-line enabling/Transaction Costs' as defined by ComReg. This respondent also called for clarification on the proposal to base the allowable costs for the purpose of a cost oriented NP charge on those of an efficient operator. While the operator agreed with the principle where cost orientation is required, the costs of a fully efficient NP process may be viewed as going beyond merely the lowest cost approach to porting using the existing NP system as oppose to the least cost approach of the most efficient of the various possible NP systems. It then added that it is entirely conceivable that the existing system and the most efficient NP system are not the same and in the event that it were found that the most efficient (lowest cost) porting system differed from that currently in place, fundamental changes to the porting systems and processes would have to occur in tandem with moves to a cost oriented porting charge. It further added that the NP system for the porting of fixed numbers is very different from that for mobile numbers in terms of porting volumes with which it deals and the typical duration of the porting process, among other factors.

The respondent that disagreed that the cost categories identified were appropriate to the development of costing rules for NP believed that in order to better reflect the costs of a mobile operator, the "Per-line enabling/Transaction cost" category would be better described as "Per-line / Per-number transaction cost", however it did not provide reasoning for this. In addition, it did not believe that the categories identified by ComReg were clear and unambiguous. For example, under the heading of general system provisioning costs is stated that ComReg had implied that it is only network and support system costs that are covered. However it is not clear where the significant costs incurred by mobile operators in training and educating both their own staff and consumers during the implementation phase of MNP be accounted for. It also commented that ComReg will need to provide details of the specific costs for each element it believes fall under each of the cost categories currently provided. It believed that if ComReg fails to provide more comprehensive detail on the costs included in each cost category there may be disputes in relation to this at a later stage.

The respondent that believed that the consultation covered three quite distinct services each with individual characteristics (i.e. mobile numbers ported between mobile networks, geographic numbers ported between fixed networks and non-geographic numbers ported between fixed networks) commented that these services are characterised by different stages of development, different volumes and different cost drivers and therefore would necessitate different treatments of cost in pricing decisions. The respondent further commented on the fact that ComReg only identified four categories of costs associated with number porting but the respondent considered that there were six well-established principles⁸ for cost recovery from prices charged for mandated wholesale services which included cost causation, distribution of benefits, effective competition, cost minimisation, reciprocity and practicability. It believed that ComReg should return to these principles.

4.1.4 COMREG'S POSITION & CONCLUSION

Sub-categorisation of costs:

Having reviewed the responses, ComReg notes that the majority of respondents agreed with the four categories of costs appropriate to the development of costing rules. However a

⁸ Principles of Implementation and Best Practice regarding cost recovery principles as decided by the Independent Regulators Group- 24 September 2003.

number of issues were raised including the issue regarding the sub-categorisation of costs within the four proposed categories. While ComReg does not discount these comments, it considers that it is premature to discuss sub-categorisation of costs until price submissions are received from the appropriate operators and reviewed by ComReg. Following ComReg's review it may then be necessary to hold bi-lateral discussions with the operators regarding the precise sub-categorisation of costs to the four cost categories identified.

Six cost recovery principles:

With regard to one respondent's comments that ComReg did not consider the six principles for cost recovery as decided by the Independent Regulators Group, ComReg notes that the these principles are intended as guidance only and must be interpreted in the specific circumstances which apply⁹. A further point to note is that in the particular case of NP it was a conclusion of the ECJ that prices should not be fixed on the basis of the costs in such a way that consumers are not dissuaded from making use of the service of portability. However ComReg deals with each of the principles mentioned below.

- 1) The cost causation principle states that "Costs should be recovered from those whose actions cause the costs to be incurred at the margin. The purpose of this principle is to ensure that customers and competitors are provided with the correct price signals when making a purchasing decision." ComReg believes that its approach reflects the principle of cost causation in that a cost is incurred by the donor operator at the point of issuing a port order and the recipient operator who benefits from the transaction should then pay an appropriate charge. In relation to the comment made by the respondent that this principle applied to both fixed and variable costs, ComReg would like to point out that it is not disallowing the recovery of these fixed costs, it is disallowing the recovery of these via inter operator charges so as to ensure that charges do not act as a disincentive for the use of NP.
- 2) The distribution of benefits principle states that "Costs should be recovered from the beneficiaries especially where there are externalities. An externality is a cost or benefit accruing to party B due to a decision by party A that does not take account of the external effects on party B." ComReg considers that the main beneficiaries from NP are the recipient operator and customers. The recipient operator benefits from a new customer on their network and benefits from the future revenue streams of that customer which implies that some charge to it is appropriate. The donor operator (i.e. the operator losing the customer) is required by legislation to port that customer number to another network and incurs a cost in doing so and therefore should be entitled to recover some of these costs. Regulation 26(2) of the Universal Service Regulation implies that an operator can charge for the provision of NP on the basis that the charge is cost oriented.

The customer also benefits in that it can change their network provider without the need to change their number. However ComReg is of the view, consistent with the ECJ that there should be no disincentive to consumers to use the service.

As previously discussed, ComReg identified four cost categories involved in the porting of numbers, namely general system provisioning costs, per line enabling/transaction costs, central database reference costs and onward routing costs. In line with this principle, ComReg proposed that the per line enabling/transaction costs be recovered as part of the inter operator charge. This reflects the fact that recipient operators benefit from the work undertaken by the donor operator who incurs a certain level of costs and which it must be

⁹ These 6 principles are cost causation, distribution of benefits, effective competition, reciprocity, cost minimisation, practicality.

recompensed for by an inter operator charge subject to the provisions of the Regulations 26(2) and 26(3). ComReg believes that restricting cost recovery from inter-operator charges for porting best reconciles the requirement for cost orientation with the requirement not to create a disincentive to subscribers to use the service for reasons already explained.

3) The effective competition principle states that "The mechanism for cost recovery should not undermine or weaken the pressures for effective competition. This can provide a rationale for moving away from a cost recovery system that solely reflects cost causation and distribution of benefits". ComReg considers that the proposed charging for NP and its proposal that retail customers do not have to pay directly to port their numbers if they change suppliers will have the effect of ensuring effective competition for the reasons set out in the consultation paper.

ComReg points out that the decision to bill other operators for porting is at the discretion of the donor network; this decision may be based on the level of financial outlay to track and invoice porting services compared to the estimated billable revenue. Therefore, in some cases operators may find it desirable to waive billing of each other.

One respondent commented that low transaction charges will result from fully automated solutions and could lead to operators considering it impractical to bill each other and which ultimately could result in sales practices such as slamming. Slamming is where a customer's supplier is changed without their consent which is illegal and a potential offence under a number of pieces of legislation. It is not apparent to ComReg what the connection between the price of NP and this illegal practice is.

- 4) The cost minimisation principle states that "The mechanism for cost recovery should ensure that there are strong incentives to minimise costs." ComReg believes that basing costs on those of an efficient operator will help ensure compliance with this principle since only efficient operators will cover the appropriate costs and inefficient operators will not be compensated for their inefficiency.
- 5) The *reciprocity* principle which states that "*Where identical or similar services are provided reciprocally, it may be appropriate for the charges also to be reciprocal*", ComReg believes that this principle may well apply, but will examine the costs of each product empirically before making a final determination.
- 6) The *practicality* principle states that "*The mechanism for cost recovery should be practical and relatively easy to implement*". ComReg believes that its proposal is consistent with this principle.

Treatment of the cost categories:

ComReg's reasoning with regard to the treatment of the four cost categories and in particular the proposal that only the incremental administrative cost to the donor operator should be recovered reflected the principle of cost causation. This is based on the view that a cost is incurred by the donor operator at the point of issuing a port order and the recipient operator who benefits from the transaction should then pay an appropriate charge. ComReg considers that if general system provisioning costs are categorised as appropriate for recovery through NP charges alone, this will have an anti competitive impact on the market. This impact will be greater for NP services where volumes are small or are falling. In such circumstances declining volumes would drive up the cost of subsequent orders, leading to further falls in order volumes and yet further increases in per order charges. For this reason ComReg has decided that cost recovery via porting charges should be restricted to costs which are variable with respect to transactions.

Timing of the review

ComReg considered it necessary to revisit the issue of appropriate charging principles for NP based on the further clarification provided by the ECJ in the 'Mobistar' case in July 2006. This clarification related to the interpretation of Article 30(2) of the Universal Service Directive (transposed in Ireland by Regulation 26(2) of the Universal Service Regulations). Please refer to Section 3 above for further details in this regard.

4.1.5 CONSULTATION QUESTION

Q.2. Are there any other cost categories, which should be considered? Please state the reasons for your response.

4.1.6 VIEWS OF RESPONDENTS

Four of the respondents believed that there were no other cost categories to be considered. Of the other three respondents who commented in relation to this question, one respondent believed that the cost of failures where porting fails should be considered but was of the view that this cost would be absorbed into the existing cost types. The second respondent believed that until further clarification is provided by ComReg in discussing the cost categories provided that it was not possible for it to provide a definitive answer. The other respondent believed that if the prices were set on the short-term variable costs of the activities required to implement each port and if all network operators chose to automate the porting process then a low price would result.

4.1.7 COMREG'S POSITION & CONCLUSION

ComReg believe that the four cost categories identified are appropriate to the development of costing rules for NP and are sufficient to address the relevant costs relating to NP and has seen no evidence to the contrary.

4.1.8 CONSULTATION QUESTION

Q.3. Do you agree with ComReg's proposed treatment of each of these types of cost? If so please provide reasons. If not please provide reasons and suggest alternatives.

4.1.9 VIEWS OF RESPONDENTS

Two respondents agreed with the proposed treatment of each of these types of costs. The other six respondents had differing views. Of these six respondents, one respondent generally believed that ComReg needed to acknowledge with reference to the Per-line enabling/Transaction costs that porting volumes have been low for some fixed line operators and thus an efficient operator model for low volumes would be a manual solution. This imbalance due to volumes would mean some operators would have lower system provisioning costs and higher transaction costs.

Another respondent pointed out that there is a reasonable argument that system set up costs and support cost of enabling the administration of porting transactions should be reflected in the transaction charge, as the scale of these costs is directly influenced by the industry agreed process. However they did not provide any reasoning in their response.

One respondent disagreed with ComReg's willingness to allow the incremental administrative cost to the donor operator of exporting the number (which is a subcategory cost of Per-line enabling/Transaction costs) to be recovered, specifically through the interconnection charges associated with NP. It believed that these costs should fall on operators as a general cost of doing business as the costs are in fact small and any attempt

to have these costs recovered from new entrants by the incumbent risks distorting competition.

One of the respondents disagreed with ComReg's proposed treatment of each of the type of costs on the basis that it believed that ComReg's proposal draws on a precedent established in setting cost oriented prices for mandatory transactions imposed on eircom arising out of analyses of the interconnection markets. It further stated that the obligation to provide number porting services applies to all network operators – operators of both fixed and mobile networks – and arises out of obligations under the Universal Service Directive. It then stated that the precedent is not relevant and the approach to the treatment of costs is faulty. It further commented that this precedent for limiting cost recovery from transaction charges to short-term variable costs is largely based on the Carrier Pre Select¹⁰ ('CPS') service imposed on eircom arising out of the SMP designation in the interconnection It further added that eircom prices for interconnection conveyance services markets. include recovery of the 'general system provisioning costs' of CPS transaction services. Where a line is connected to the CPS service eircom charges the gaining operator for the conveyance of calls for that line – and so that traffic makes a direct contribution to those system costs. However when a number is ported all the traffic associated with that line is lost to the network so there is no opportunity to recover the system costs from that traffic. This respondent further expressed the view that in the mobile market where large-scale automation has already been implemented the short-term variable costs of the transactions associated with each port are small. The price for mobile number porting charged across the mobile industry recovers the transaction costs and makes a substantial contribution to the system costs. With the volume of mobile numbers ported taken together with a high level of the charge means that mobile operators have recovered all of the capital costs of automation initiative from the porting charge revenues and therefore it may well now be appropriate to move to a level of charge for mobile number porting that only recovers the short-term variable costs of the porting service plus the ongoing operating and maintenance costs of the automated solution. The respondent commented that in the case of fixed networks there has been no large-scale automation of porting services so system costs are low and variable costs relatively high. It believes that the proposal by ComReg to disallow any recovery of future investments in automating the porting services from transaction charges merely ensures that no network operator will invest in more efficient porting processes – even if this investment resulted in a lower unit cost. It therefore believes that the proposal to limit cost recovery to short-term variable transaction costs does not encourage efficiency.

Another respondent did not agree on the basis that the process, systems and routing for fixed and mobile porting in Ireland are very different. While the costing treatments chosen by ComReg in the fixed porting may have been appropriate given the scale of fixed porting in Ireland, it may not be appropriate for mobile porting. It then stated that ComReg needs to present a full and comprehensive description of the two systems currently in place before a proper consideration can be made. On a more general point the respondent added that it believed that ComReg's proposed costing treatment had only one objective and that was to minimise the charge operators can levy for the number porting service. It believed that this is inappropriate and potentially dangerous for future investment by mobile network operators.

¹⁰ Carrier pre-selection ('CPS') refers to the facility offered to customers which allows them to opt for certain defined classes of call to be carried by an operator selected in advance (and having a contract with the customer) without having to dial a routing prefix or follow any other different procedure to invoke such routing

4.1.10 COMREG'S POSITION & CONCLUSION

ComReg acknowledges that there are different types of systems in place in both the fixed and mobile sectors but it is neither the purpose nor the intent of this document to address the issue of whether the charges for fixed and mobile portability be identical, except by coincidence. In relation to the fixed sector, the majority of NP processes are currently based on manual systems and it may not necessarily be efficient or economical for operators to migrate to an automated process. The point is that, however operators choose to implement NP, prices should reflect the most efficient processes and should not distort competition or discourage use of the service. ComReg also accepts that in some cases the transaction costs with a manual process may be higher than those in an automated process. If the respondent is suggesting that all NP process should be based on an automated process so as to ensure efficiency across the fixed and mobile sectors, ComReg considers that it may well be disproportionate as in certain NP processes there may be relatively few numbers to port. Nevertheless, the fact that volumes are low because a product is new or because market conditions in the past were unfavourable to its take up will not necessarily mean that the process should be tailored to low levels of activity, if this assumption in itself acts as an inhibitor to volume growth and the use of NP by subscribers. ComReg proposes that the issue of the type of system (i.e. manual or automated) be examined further in terms of review of operator price submissions.

One operator made a comment that porting costs should fall on operators as the cost of doing business. However, Regulation 26(2) of the Universal Service Regulation implies that an operator can charge for the provision of NP on the basis that the charge is cost oriented. Thus charges are acceptable as long as they are cost oriented and there are no direct charges to subscribers. The only question, which is addressed in this paper, is what costs may be recovered via porting charges.

Regarding observations made that pricing methodologies in relation to CPS services imposed on eircom arising out of the SMP designation in the interconnection markets, ComReg mentioned the CPS example as an illustration of the potential to distort competition when volumes are low and fixed costs high. ComReg does not seek to suggest that the circumstances are entirely similar when clearly they are not. However, the example is a useful illustration of what can happen when fixed costs are applied to a small volume of transactions.

ComReg rejects the comments made by one respondent where it believes that ComReg's objective is to artificially keep the charge as low as possible. ComReg would like to point out that its objective is to ensure that NP charges are in compliance with the cost orientation obligations <u>specified herein</u>.

On the basis of the reasoning provided ComReg believes that only the incremental administrative costs to the donor operator should be recovered against other operators in the form of NP charges and charged on a per event basis.

4.2 Efficient Operator Basis

4.2.1 SUMMARY OF CONSULTATION PROPOSAL

ComReg proposed that the operators' allowable costs for the purpose of the cost orientation obligation for NP should be based on those of an efficient operator i.e. the charge to be recovered should be based on the assumption that a fully efficient NP process is in place. The merit of this approach was that it encouraged efficiency, since only efficient operators would recover all their allowable costs. Efficient operators would not be penalised by their inefficient competitors. As discussed above it does not always follow that an automated solution is the most efficient.

4.2.2 CONSULTATION QUESTION

Q.4. Do you agree with ComReg's view that allowable costs for the purpose of the cost orientation obligation for NP should be those based on an efficient operator? Please state the reasons for your response.

4.2.3 VIEWS OF RESPONDENTS

Six of the respondents agreed that the allowable costs for the purpose of the cost orientation obligation for NP should be those of an efficient operator. One respondent disagreed with ComReg's view in this regard while another respondent agreed with the principle but was of the view that further clarification was required in terms of what this would involve in practice in the context of ComReg's current proposals.

Of the respondents that agreed with ComReg's proposal, one of these stated that, an appropriate benchmark would be that of an efficient operator, not the actual or potential costs which are incurred by any given party. A second respondent added that it is not clear what the definition of an efficient operator model is and what the efficient operator model would look like. In addition this respondent stated that a model should not seek to introduce reciprocity at this time and it did not agree that one model fits all on the basis that an efficient operator needs to be defined in terms of the operators' size and volume of business. Another respondent considered the current Full Mobile Number Portability ('FMNP') solution in Ireland to be one of the most efficient solutions in the world and it was agreeable to the efficient operator principle. However it did not agree that NP charges in isolation were an appropriate vehicle to incentivise migration to a different NP system which was perceived to be more efficient in the absence of a detailed cost benefit study. Another respondent, believed that if all of the costs of implementing a porting service were to be recovered from the transaction charge then an efficient operator principle might apply. One respondent called on ComReg to provide clarification in relation to what this involves in practice in the context of ComReg's proposals.

One respondent disagreed with ComReg's general approach to NP costs but supported the view that efficient operator charges are appropriate. It believed however, that in order to have a fully informed discussion on the types of efficient operator charging mechanism(s) that it would be appropriate for ComReg to present a full and comprehensive description of the two systems currently in place along with its views on future systems as discussed previously. In addition, ComReg should provide a clear and unambiguous definition of what it understands of an 'efficient operator' in this context.

4.2.4 COMREG'S POSITION & CONCLUSION

ComReg notes the broad support for this principle and agrees with the comments made by one respondent whereby appropriate incentives should be provided to operators and that any proposal should be based on an efficient operator and not the actual or potential costs incurred by any given party.

ComReg considers that an efficient operator is one whose relevant operating and capital costs are those of a hypothetical efficient operator, although the measurement of the implied cost base will be grounded in empirical evidence. In the context of NP, ComReg intend to examine the NP processes for both the fixed and mobile sectors to determine the charge based on an efficient operator. Further bi-lateral discussions may be necessary once ComReg has requested and reviewed operator price submissions. It should be noted that there are a number of possible methods of determining an efficient NP charge. Such methods include adjusting the existing operator's actual costs with adjustments for efficiency, development of a bottom up modelling of NP costs or benchmarking against other European operators.

4.3 Cost Modelling

4.3.1 SUMMARY OF CONSULTATION PROPOSAL

ComReg proposed in the consultation that the use of independent models could play a useful part in the determination of a cost orientated rate for NP. ComReg also noted that the European Court of Justice ('ECJ') in the 'Mobistar' case clarified that Article 30(2) of the Universal Service Directive (transposed in Ireland by Regulation 26(2) of the Universal Service Regulations) did not preclude the use of an abstract model (i.e. an independent, bottom up model) in the determination of cost-orientated NP charges¹¹.

4.3.2 CONSULTATION QUESTION

Q.5. Do you agree that it may be appropriate for ComReg to use independent cost models - i.e. bottom up models in the determination of NP charges? Please state the reasons for your response.

4.3.3 VIEWS OF RESPONDENTS

Two of the respondents agreed with ComReg's proposal to use independent cost models in the determination of NP charges. Three respondents however disagreed with this proposal while another three respondents agreed to the appropriateness of the model approach but with some points to note in this regard.

One of the three respondents that did not agree with the proposal believed that the service was simple enough that an industry agreed model could be used. Another respondent believed that it would be more appropriate for ComReg to request the mobile operators to provide per transaction cost estimates based on their current internal processes. ComReg would then be able to form a view as to the efficient level of FMNP charges from assessment and comparison of the mobile operator cost estimates under the same industry process. Another respondent that disagreed with ComReg's proposal of cost models believed that the costs of MNP should be internalised by each operator and that this would have the advantage of avoidance of expensive and resource-intensive cost modelling. It

¹¹ See Paragraph 36 – "Mobistar" case

added however that in the event that ComReg decided to proceed with a cost modelling exercise then it would be happy to provide relevant information should it be required.

One of the three respondents that agreed with the appropriateness of the models, had some points to note; they highlighted that such models may be appropriate in the fixed sector rather than the mobile sector on the basis that the mobile number porting volumes are very difficult to accurately forecast for future years. Another respondent considered that operators would need to have considerable input into the formulation of the models to ensure that it accurately reflected the actual cost conditions and all the functionality of the porting system. Another respondent also agreed that there could be independent cost models that more accurately reflect the different situations of different operators but it expressed concern that ComReg may attempt to 'shoe horn' all operators into a single model for a single solution. Such an approach would clearly be aimed at setting prices and ultimately could see some operators loosing money. It considered that such a situation could lead operators to under recover reasonable costs and that would be unacceptable. Another respondent expressed its concern that OAOs could face the imposition of complex costing models by ComReg and given the relatively low volumes involved and the apparent lack of complaints about the charges used by OAOs to date, it did not believe that OAOs should be required to provide large volumes of data to ComReg or that complex costing models should be imposed on smaller operators.

4.3.4 COMREG'S POSITION & CONCLUSION

ComReg considers that the use of independent models can be useful in the determination of an efficient NP charge and believes that it may be appropriate to base the price on such a model. ComReg notes that such an approach has been found to be permissible by the ECJ in the Mobistar case.

ComReg disagrees with the comments made by one respondent that the use of such models would be more appropriate in the fixed sector rather than the mobile sector as it considers that forecasting would be no more difficult in one sector as compared to another.

ComReg would also like to point out that it is not the purpose of this document to seek to "shoe horn" all fixed and mobile operators into a single model for a single solution, as stated earlier, ComReg has set out a clear set of costing principles for number porting in both the mobile and fixed sector, which operators must comply with. ComReg intends to request price submissions from operators as appropriate. Depending on the outcome of this pricing review ComReg will consider the use of independent cost models as appropriate.

4.4 Standards of Efficiency

4.4.1 SUMMARY OF CONSULTATION PROPOSAL

With regard to the measurement of efficiency, in the consultation, ComReg identified three alternatives. Firstly an independent "abstract" model of costs may be used. Secondly, the most efficient operator's costs could be used as the basis for all NP charges. Both of these approaches would imply uniformity of tariffs across operators. The third alternative would be to define "efficiency" such that it reflected the scale of the operator in question. This would only make sense if scale effects were significant, which is unlikely if only volume dependent costs are at issue.

4.4.2 CONSULTATION QUESTION

Q.6. Do you believe that a different standard of efficiency should be applied to different operators? Please elaborate on your response.

4.4.3 VIEWS OF RESPONDENTS

Five respondents disagreed that a different standard rate of efficiency should be applied to different operators. Two other respondents agreed that a different standard of efficiency should be applied to different operators and one other respondent did not provide an answer to this question.

Of those respondents that did not agree, one respondent believed that the scale effects are unlikely to be significant in respect of the variable costs of FMNP transactions and believed that the charge should be set at a standard industry rate. Another respondent considered that the underlying costs between operators should be similar and different efficiency standards are likely to obscure other issues rather than measure efficiency variances. One respondent again highlighted the need for ComReg to provide a definition on 'efficiency'. This respondent stated that based on experience to date of both the fixed and mobile porting in Ireland that there is a very real risk that operators that made a considerable investment in providing porting systems and processes which are world class in terms of operational efficiency and automation would end up being unfairly penalised while this proposal could lead to the entirely unsatisfactory situation where an operator that has implemented an operationally inefficient and unreliable manual system is rewarded. Another respondent believed that this approach to a cost oriented NP charge would lead to asymmetric charges across the operators, unfairly penalising recipient operators for the inefficiency of certain donor operators. It considered that this approach would also reduce the incentives for less efficient smaller operators to grow their revenues and subscriber base so as to reach the scale necessary to benefit from resulting scale economies. Another respondent considered that the eircom charges should be applied to fixed operators and the agreed industry level to all mobile operators.

Of the two respondents that agreed that a different standard of efficiency should be applied to different operators, one of these respondents believed that this was appropriate on the basis that this could take inputs such as porting volumes as an input to deciding the categories.

4.4.4 COMREG'S POSITION & CONCLUSION

ComReg notes that most respondents did not consider that different standards of efficiency should be applied to different operators. ComReg is of the view that applying different standards of efficiency would only make sense if scale effects were significant. ComReg considers that this is unlikely to be the case if inter operator charges are recovered by volume dependent per enabling transaction costs. ComReg will further consult if it considers a change is necessary to impose uniform sector charges for NP.

4.5 Donor Operator to Levy NP Charge on Recipient Operator

4.5.1 SUMMARY OF CONSULTATION PROPOSAL

In the consultation, ComReg noted that NP is a regulatory obligation imposed on undertakings providing a publicly available telephone service. It provides that a subscriber can, upon request, retain their number independently of the undertaking providing the

service. Such a scenario exists when the customer of one telecommunications network provider moves to another network provider and retains their existing number. When this situation arises, the customer of the new network provider (known as the recipient operator) will have to notify the customer's previous network provider (known as the donor operator) who will in turn then make all the necessary administration and routing arrangements to ensure that all the services used by the customer are routed properly on the network. ComReg is of the view that the donor operator should be allowed to levy a charge on the recipient operator, which allows the donor operator to recover its allowable costs from the recipient operator. ComReg's reason for the levying of a charge by the donor operator was that it legitimately incurs a cost and cost recovery based on cost oriented charges is envisaged in the legislation once, as noted by the ECJ, such charges do not dissuade consumers from making use of the facility.

4.5.2 CONSULTATION QUESTION

Q.7. Do you agree with ComReg's view that the donor operator should be able to levy a NP charge which recovers the incremental administrative cost element of its per-line enabling/transaction costs from the recipient operator? Please state the reasons for your response.

4.5.3 VIEWS OF RESPONDENTS

Six respondents agreed with ComReg's view that the donor operator should be able to levy a NP charge. However some respondents had different views in relation to the costs to be recovered as part of the NP charge. Two respondents disagreed with ComReg's view.

One of the two respondents rejected the contention that a donor operator has any costs in excess of those incurred by the recipient operator, or that some form of benefit passes. It considered that consumers and competition as a whole to be the beneficiaries of porting and not recipient operators. It also considered the donation of a mobile number is a regulatory obligation, not a commercial service for which the donor operator is entitled to charge competing operators. The same respondent monitored the operation of MNP and found that operators must make equal provision to donate and receive ports, while at the same time incurring an equivalent or identical cost in processing each request, regardless of whether it relates to a 'port in' or 'port out'. This respondent added that the conclusion reached by ComReg, in that only donor operators should be entitled to recover costs associated with porting, is fundamentally flawed. Further to this it believed that on the grounds that the costs are low and incurred by both the donor and recipient operator, these costs should be incorporated into the overall cost of doing business.

Of the six respondents that agreed with ComReg's view that the donor operator should levy the NP charge, one of the respondents did not agree with ComReg's proposed treatment of cost. This effectively meant that all costs except incremental administrative costs were recovered through interconnect charges. A second respondent believed that forward looking MNP charges should be set on the basis of the variable costs of processing MNP transactions. A third respondent highlighted that in practice, an incremental administrative cost may not arise where an operator has automated its processes for porting numbers. It gave, by way of example, where eircom has moved to an automated GNP process and as a result the cost of an individual port has fallen and that eircom's charges for GNP (and

GLUMP¹²) should fall further. It also added that with a fully automated system in place for GNP it is unclear as to what the incremental administrative costs of eircom can now be. It therefore urged ComReg to examine this issue with a view to reducing eircom's GNP charges to zero. It also called on ComReg to look at how eircom can expand its GNP functionality to support automated processing for NGNP.

4.5.4 COMREG'S POSITION & CONCLUSION

ComReg notes the general agreement of respondents with the principle that the donor operator should be allowed to levy a charge.

ComReg would like to point out that the issues raised in relation to the recovery of costs as part of the NP charge are not relevant to the current question and issues relating to cost categories have been covered earlier in this document.

With regard to the respondent's comments whereby it rejected the contention that a donor operator has any costs in excess of those incurred by the recipient operator, or that some form of benefit passes, ComReg disagrees on the basis that it considers that any costs incurred by the recipient operators would be those related to taking on a new customer irrespective of whether the customer was a new customer (i.e. with no previous network provider) or a customer who was ported from another network. In addition ComReg noted that the respondent stated that it has been monitoring these costs over a period of time to prove this point, however it provided no evidence as part of its response.

ComReg would also like to address this same respondent's point regarding relevant benefit passing. ComReg stated in the consultation that the recipient operator, the consumer who ports and all consumers in the market are the beneficiaries of NP. This was then reflected by the method in which the four categories of cost related to NP are recovered. The per line enabling/transaction costs being recovered as part of the inter operator charge, reflect the fact that recipient operators benefit from a new customer while the donor operator who incurs a certain level of costs must be recompensed for them. The general system provisioning costs and central database costs are written off as a cost of doing business and treated as a general overhead and charged indirectly to all customers and reflecting the fact the customers also benefit from NP. ComReg considers this to be a fair approach as those who benefit from NP pay for that benefit either directly, in the case of the recipient operator or indirectly, in the case of the customers. Those who incur costs in the process i.e. the donor operator, are allowed to recover these costs as long as the charges are cost oriented (in line with the costing principles specified), and there are no direct charges to subscribers. This same respondent made a comment that porting costs should fall on operators as the cost of doing business. However, Regulation 26(2) of the Universal Service Regulation implies that an operator can charge for the provision of NP on the basis that the charge is cost oriented. Thus charges are acceptable as long as they are cost oriented and there are no direct charges to subscribers.

The analysis provided by Cullen International highlighted that in the majority of countries (13 of the 16 countries) the recipient operator paid the inter-operator charge.

ComReg has also noted the comments by one respondent relating to the level of the current GNP charge on the basis that the GNP process is based on a fully automated system.

¹² Unbundled Local Metallic Path with Geographic Number Portability Service ('ULMP' & 'GNP')

ComReg intend to review this charge in due course and in addition will also review the potential for eircom expanding the GNP functionality to support automated processing for NGNP.

On the basis of the reasoning outlined above ComReg is of the view that the donor operator should be able to levy a NP charge which recovers the incremental administrative cost element of its per-line enabling/transaction costs from the recipient operator.

4.6 Pricing Structure for NP

4.6.1 SUMMMARY OF CONSULTATION PROPOSAL

ComReg discussed two possible charging methods for NP. One option was a charge based on a simple/single pricing structure for all types of processes, regardless of the level of activity involved or outcome. Another option was to have different charges depending on the outcome (i.e. one charge for a correct type of port and another charge for failed ported etc.). In the case of a single charge, it was assumed that the overall cost to the operator will even out in the long run, even if particular types of ports over recover or under recover individually. The main advantage of this method was its simplicity and while the individual cost of each type of outcome may not be recovered, the overall costs would be. A detailed charging system based on each type of outcome could be argued to be a more precise approach as it recognises that all processes do not always have the same outcome (i.e. a process can fail) and incentivises both the donor and recipient operator. ComReg also recognised that it was important that cost-based transaction charges applied for porting unallocated numbers to reduce uneconomic churn.

4.6.2 CONSULTATION QUESTION

Q.8. What are your views on pricing structures for NP? Please state the reasons for your response.

4.6.3 VIEWS OF RESPONDENTS

Six respondents believed that a single charge/simple approach would be most appropriate. One respondent believed that if there was a move to cost oriented prices, a charging system with different prices for various porting outcomes would be desirable while another respondent asked for further clarity.

One of the respondents that agreed to a simple approach was, however, opposed to interoperator charges of the kind proposed. It also added that it did not believe that the costs associated with each transaction were sufficiently different to warrant separate charges. Another respondent commented that the current pricing structure for the successful porting of geographic numbers between fixed networks is overly complex – comprising separate charges for immediate ports and a number of delayed port options with separate levels depending on the number of Caller Line Identity ('CLIs') ported. It then added that this review should take the opportunity to simplify the charging structure by withdrawing charges for services that are largely unused. Another respondent believed that the single charge should address both successful and unsuccessful porting attempts as this saves billing complexity and complex billing verification. It also commented that it did believe that the charges for block moves should be different to singleton moves so as to address the additional work involved. Another respondent highlighted that the existing single charge resulted from commercial agreement between the parties even though a range of charges for different porting processes was proposed by some operators.

The respondent that urged ComReg to provide further clarity stated that the consultation seemed to re-iterate much of the current body of regulatory policy on NP costing and that it was unclear as to whether ComReg was seeking to mandate through the consultation process to undertake significant new work on number porting charges. This respondent urged ComReg to clarify what steps it intends to take after this consultation and it also emphasised that further data requests to Other Authorised Operators ('OAOs') be avoided wherever possible. This respondent also considered that a complex pricing structure is appropriate for dominant operators, while simple pricing structure is more appropriate for other operators. It cautioned that if ComReg was determined to take action on pricing structures, then the issuing of guidance rather than a binding direction would be the appropriate approach.

4.6.4 COMREG'S POSITION & CONCLUSION

ComReg notes that the majority of respondents favour a simple pricing approach for various reasons. Whatever pricing structure is in place must be practical and provide the appropriate incentives to all parties involved in the number porting process. Given the differences between the porting process in the fixed and mobile sectors, is does not appear likely that a single charge for fixed and mobile transactions is warranted. ComReg will however review any evidence which favours a multiple charge and will evaluate this issue further if necessary.

5 Retail Number Porting Charges

5.1 No Direct Charge to Retail Subscribers for NP

5.1.1 SUMMARY OF CONSULTATION PROPOSAL

Regulation 26(3) of the Universal Services Regulation provides that "obligations under paragraph (2) may include a requirement that there shall be no direct charges to subscribers for NP. Where retail tariffs for porting of numbers are permitted, the Regulator shall ensure that such tariffs may not be imposed in a manner that would distort competition and for this purpose may specify obligations to be complied with by an undertaking."

In the consultation, ComReg outlined its view that that NP charges to consumers increase the costs of switching operators and reduce competition in the market (contrary to Regulation 26 (3) of the Universal Services Regulation). ComReg proposed that there should be no direct charge to subscribers for NP as they could act as a disincentive for consumers to change networks and could result in the distortion or reduction of competition in the market place.

5.1.2 CONSULTATION QUESTION

Q.9. Do you agree with ComReg's proposal that there should be no direct charge to retail subscribers for NP? Please state the reasons for your response.

5.1.3 VIEWS OF RESPONDENTS

Five respondents supported ComReg's position that there should be no direct charge to retail subscribers for using NP. Of the other three respondents, one respondent disagreed with the proposal while another respondent was unclear whether the proposed prohibition would relate purely to donor operators or to both donor and recipient operators. Another respondent agreed that the losing operator could not charge the migrating customer as this would restrict competition but it was of the view that whether the gaining operator chose to recover the transaction charge from a separate retail charge is a matter of retail price policy.

The respondent that was unclear on whether the proposed prohibition would relate purely to donor operators or to both donor and recipient operators supported a prohibition on donating operators imposing a porting charge on consumers switching. The respondent further added that ComReg's statement which proposed that 'ComReg believes that NP charges to consumers increase the costs of switching operators and reduce competition in the market (contrary to Regulation 26(3) of the Universal Services Regulation)' was a simplistic rationale given that ComReg was proposing to impose a new requirement on operators with regard to inter-operator charging. It further re-iterated the acknowledgement by the ECJ in Mobistar, where an inter-operator charge applied that this would ultimately be passed onto customers either directly or indirectly. It agreed with ComReg that NP charges to consumers increase the costs of switching operators and impede competition. However, it argued that this effect existed regardless of whether a charge was imposed directly or not. It stated that the real issue was whether only those availing of porting should meet these costs or whether all mobile customers should share the costs associated with a facility which improved competition in the mobile sector and therefore would benefit consumers as a whole. The respondent believed that it should be the latter and considered ComReg's proposal that there should be no retail charge, to be based on the unstated assumption that the costs per port were low and the benefits to competition so high that no

amount of customer switching and porting would be inefficient. It believed that if ComReg's assumption was correct, it made it even clearer that there should be no interoperator charging. While it agreed that prohibiting donor operators from levying direct charges on consumers for porting may be appropriate, it considered that the underlying rationale for this proposal as set out in the consultation was equally applicable to the proposed inter-operator charges and should be further considered by ComReg.

The respondent that disagreed with ComReg's proposal, believed that it was neither appropriate nor necessary for ComReg to specify that there should be no direct charges to subscribers for the porting of mobile numbers given that such charges were not currently implemented by any mobile operator, and were not likely to be introduced in the future. While it considered that it may be appropriate for ComReg to prohibit a direct retail charge by donor operators to retail customers for porting, it objected the proposed prohibition of retail charges for porting introduced by recipient operators. It believed that a retail charge for porting imposed by operators as donors may have implications in terms of reducing competition by deterring customers from switching, while recipient operators have every incentive to ensure that their actions do not deter customers from switching to them. It further added that the proposal to prohibit retail porting charges by recipient operators was an entirely disproportionate and unnecessary regulatory measure and that operators should be allowed to reserve the right to introduce retail charges for ports where it is the recipient.

5.1.4 COMREG'S POSITION & CONCLUSION

Having considered the responses and noting that the majority of respondents agree with this proposal, ComReg is still of the view that there should be no direct charges to subscribers as it considers that retail charges for NP will have a detrimental impact on competition in the market and is using it powers under Regulation 26(3) of the Universal Services Regulation to specify that there shall be no direct charges to subscribers for NP. ComReg considers that this should apply to donor and recipient operators. What this will mean is that a customer who changes provider in either the fixed and mobile sectors and who elects to retain their number should not have to pay any additional charges as compared to a customer who changes their number.

ComReg understands that costs may ultimately be indirectly passed onto consumers through some other mechanism.

6 Miscellaneous Issues

Respondents raised a number of issues which in some cases did not relate to the consultation questions posed. ComReg addresses some of these issues below.

6.1 Historical Charge for MNP

One operator expressed its dissatisfaction at the fact that the consultation failed to address the current and historical MNP charge in any way. The respondent explained that it had never agreed to pay the charge to other operators (Vodafone, O2 and Meteor) but the operators continue to invoice the respondent for the porting charges. It has as a result of this, continued to accrue for the charges but it believes that this creates significant uncertainty on the level of the actual customer acquisition costs.

6.1.1 ComReg's Position

ComReg is of the view that the appropriateness of the level of the NP charge historically is beyond the scope of the current consultation. If parties believe that they have paid monies on foot of a charge levied in breach of Community Law, this is a matter for the operators inter se who can choose whether or not to seek to recover such monies.

6.2 Home-zone Services

One respondent noted ComReg's views relating to the fact that there was the potential for a future increase in the demand for NP facilities arising from the possible introduction of home-zone services. It called on ComReg to specify how the proposed costing principles for NP would apply in this context, in particular, ComReg should set out how it intends to reconcile the operation of two different and separate NP systems for fixed and mobile numbers in a future converged environment given that the cost oriented charge based on efficient operator costs in each case is likely to be very different, and given the current differing capacities of each system to deliver on important service dimensions such as the average duration of the NP process. Again the respondent called for greater clarity on this issue. It believed that this may require fundamental reform, in avoiding large asymmetries between the wholesale porting charges and porting services standards for different types of numbers, in a converged environment.

6.2.1 ComReg's Position

ComReg issued a consultation document, 07/15¹³ which referred to NP in the context of home zone services. In this document ComReg stated that the most obvious solution is for ported geographic numbers to continue to be included in the GNP database, regardless of whether the number-block holder is a fixed or mobile network. This means that mobile networks with home-zonal services would directly interwork with both fixed and mobile porting databases and would use the corresponding processes.

ComReg considered that extending GNP to mobile operators would involve a detailed review and update of the GNP processes, which would need to be factored into the relevant work programmes. Any decision to extend GNP would also need a relatively minor change to the National Numbering Conventions.

¹³ Addressing Geographic Number Allocation for Hybrid Fixed-Mobile Telecoms Services

7 Specification

7.1.1 STATUTORY POWERS GIVING RISE TO SPECIFICATIONS

These specifications will be issued under Regulation 26(2) of the Universal Service Regulations, for the purpose of specifying obligations for compliance by an undertaking to which Regulation 26(1) of the Universal Service Regulations relates for the purpose of ensuring that pricing for interconnection related to the provision of NP is cost oriented.

This specification is also issued having regard to section 26(3) of the Universal Service Regulations and sections 10 and 12 of the Communications Regulation Act, 2002.

SPECIFICATION 1

ComReg hereby specifies that allowable costs for the pricing of interconnection related to the provision of number portability are limited to the incremental (i.e. short term volume dependent) administrative cost to the donor operator of per-line enabling/transaction costs, based on a fully efficient number porting process. This specification is for the purpose of ensuring that pricing for interconnection related to the provision of number portability as provided for in Regulation 26(1) of the Universal Service Regulations is cost oriented.

SPECIFICATION 2

ComReg hereby specifies that there shall be no direct charges to subscribers for number portability.

This specification is made on the 30th day of November 2007.

8 Regulatory Impact Assessment

8.1.1 INTRODUCTION

According to ComReg's Approach to Regulatory Impact Assessment ('RIA'), ComReg Document 07/56 & 07/56a, the purpose of a RIA is to establish whether regulation is actually necessary, to identify any possible negative effects which might result from imposing a regulatory obligation and to consider any alternatives. ComReg's proposed approach to the RIA is that in the future it will continue to conduct RIAs in respect of any proposed statutory instruments which would impose regulatory obligations, or in respect of any market analyses which propose to impose, amend or withdraw obligations, through the finding of SMP or effective competition. Appropriate use of the RIA should ensure the most effective approach to regulation is adopted.

In conducting the RIA ComReg will take into account the RIA Guidelines¹⁴, adopted under the Government's Better Regulation programme. The RIA Guidelines are not legally binding upon ComReg, however, in conducting the RIA ComReg will have regard to them, while recognising that regulation by way of issuing decisions e.g. imposing obligations or specifying requirements in addition to promulgating secondary legislation may be different to regulation exclusively by way of enacting primary or secondary legislation. In conducting a RIA ComReg will take into account the six principles of Better Regulation that is, necessity, effectiveness, proportionality, transparency, accountability and consistency. To ensure that a RIA is proportionate and does not become overly burdensome, a common sense approach will be taken towards RIA. As decisions are likely to vary in terms of their impact, if after initial investigation a decision appears to have relatively low impact, then ComReg would expect to carry out a lighter RIA in respect of those decisions.

In determining the impacts of the various regulatory options, current best practice appears to recognise that full cost benefit analysis would only arise where it would be proportionate or in exceptional cases where robust, detailed and independently verifiable data is available. Such comprehensive review will be taken when necessary.

ComReg would like to point out that as it is not imposing a new regulatory obligation on an undertaking, it is not mandatory for it to provide a RIA. However it has decided to do so in order to demonstrate that it has considered and evaluated the alternative options available. The main objectives of this review is to set out a clear interpretation of cost orientation in the context of NP and to issue specification to all relevant undertakings specifying the allowable costs for the pricing of interconnection related to the provision of NP as provided for in Regulation 26(2) of the Universal Service Regulation is cost oriented. It also clearly identifies who pays the NP charge, to establish whether retail users should pay a direct charge for NP and issue a specification to all relevant undertakings in relation to this.

It should also be noted that an extensive Cost-Benefit analysis was completed previously, by Ovum, in conjunction with Consultation Document $01/36^{15}$. It is therefore not considered necessary to provide this analysis as part of the current review.

¹⁴ See "RIA Guidelines: How to conduct a Regulatory Impact Analysis", October 2005, www.betterregulation.ie

¹⁵ Implementing Full Mobile Number Portability in Ireland

8.1.2 SUMMARY OF CONSULTATION PROPOSAL - RIA

(1) Description of policy issue and objectives

The consultation had the following purposes:

(a) to set out a clear interpretation of cost orientation in the context of NP and to issue a specification to all relevant undertakings specifying the allowable costs for the pricing of interconnection related to the provision of NP for the purpose of ensuring that pricing for interconnection related to the provision of NP, as provided for in Regulation 26(2) of the Universal Service Regulations is cost oriented.

(b) to clearly identify who pays the NP charge; to establish whether retail users should pay a direct charge for NP; and to issue a specification to all relevant undertakings, in relation to this.

(2) Identify and describe the regulatory options and the impact on stakeholders in relation to the interpretation of the cost-orientation obligation on pricing for interconnection related to the provision of number portability

Option 1- Do not provide further clarification on the cost orientation obligation

One option available to ComReg was not to provide further clarification on the cost orientation obligation (i.e. do nothing). However, given that there is an obligation on operators to provide NP and the recent clarification provided in the "Mobistar" case in relation to cost orientation, ComReg did not consider this option to be optimal. It lacked transparency and could cause confusion in the market place as operators would not be in a position to determine if they were in compliance with their obligations.

Option 2- Set a clear set of principles outlining what costs will be considered in assessing cost-orientation of the pricing for interconnection related to the provision of number portability

ComReg considered this approach to be the most appropriate as it was fully transparent, it facilitated operators in ensuring compliance with the cost orientation obligation and sent the appropriate signals to the marketplace.

(3) Identify and describe the regulatory options and the impact on stakeholders in relation to who should pay the NP Charge?

In determining the impact on stakeholders, ComReg considered the following options:

Option 1- The Donor/Losing Operator pays

Impact: The donor operator does not receive a benefit and only incurs costs as a result of the porting of a number. As all other parties benefit from the porting of the number, to levy the NP charge on the donor operator would not be in compliance with the distribution of benefits principle.

Option 2 - The Recipient/Gaining Operator pays

Impact: The recipient operator receives a benefit from the porting of a number and it is therefore appropriate that it share the burden of the costs involved.

Option 3- The Consumer who ports pays

Impact: ComReg is of the view that to levy a direct charge on the customer would discourage consumers from switching network providers and therefore would have negative effect on competition in the market.

Option 4- All Consumers pay

➤ Impact: This would be similar to Approach No 3 above.

8.1.3 CONSULTATION CONCLUSION - RIA

Having considered the various alternatives above, ComReg concluded that it should proceed to issue the draft specifications specifying the allowable costs for the pricing of interconnection related to the provision of NP and a specification that there shall be no direct charges to subscribers for NP.

ComReg was of the view that its approach would provide greater certainty in the market place, increase levels of transparency in NP charging and be more equitable. It was also of the view that the proposed measures would benefit consumers by ensuring that no direct charges for NP were levied on them and would also have the effect of increasing the levels of competition in the market.

8.1.4 CONSULTATION QUESTION

Q. 10. Respondents are requested to provide views on whether the proposed specifications are proportionate and justified and offer view on other factors (if any) ComReg should consider in completing its Regulatory Impact Assessment.

8.1.5 VIEWS OF RESPONDENTS

Each of the respondents had different views in relation to the RIA. Some respondents agreed with the draft specifications, while other respondents agreed with part thereof. Some respondents did not agree with the draft specifications, where one respondent believed that the specifications were neither proportionate nor justified. One respondent commented on the level of ambiguity and the lack of clear understanding on the scope of the consultation. The main issues are detailed below.

One issue raised by a number of respondents was the need for ComReg to provide a full Cost-Benefit analysis of the regulatory options. Another issue raised questioned ComReg's basis for issuing this document at this time. A further issue was the failure of the RIA to state clearly what further action ComReg planned to take and the failure to consider the impact that this could have on operators, particularly smaller operators. One respondent

believed that there is further action required from ComReg to determine (a) the actual charge and (b) the committed timelines in respect of setting new MNP charges.

One respondent also raised the issue that ComReg's proposal to prohibit direct charges to subscribers for NP is unjustified on the basis that direct charges to retail customers for NP are not currently implemented by any mobile operator and the competitive dynamics in the mobile market are such that they are not likely to be introduced in the future.

Another issue was raised regarding the rejection of a retail porting charge and the resulting impact of the costs for consumers where a retail porting charge was already in place. It explained that if an operator is compelled to withdraw an existing retail porting charge then it may have to recover its porting costs from the prices of other services that it offers. In a competitive market this may lead, for example, to the price of voice calls falling more slowly than would otherwise be the case. In circumstances where the operator fully absorbed the porting costs itself, its profitability would be reduced with implications for its incentive to invest and innovate. It added that this may be a factor for operators in the fixed market where such retail porting charges are present.

One respondent believed that ComReg should consider the alternative option of abolishing the porting charge altogether.

8.1.6 COMREG'S POSITION & CONCLUSION

As already discussed at the beginning of this section, ComReg would like to point out that as it is not imposing a new regulatory obligation on an undertaking it is not mandatory for it to provide a RIA. However it has decided to do so in order to consider and evaluate the alternative options available. It should also be noted that a full Cost-Benefit analysis was completed previously, by Ovum, in conjunction with Consultation Document 01/36 'Implementing Full Mobile Number Portability in Ireland'. All aspects of fixed number porting was discussed in document 99/24¹⁶ (D1/99). It is therefore not considered necessary to provide this analysis as part of the current review.

The review on NP follows on from further clarification provided by the ECJ in the 'Mobistar' case on the interpretation of Article 30(2) of the Universal Service Directive (transposed in Ireland by Regulation 26(2) of the Universal Service Regulations). In essence this review sets out a clear interpretation of cost orientation in the context of NP and also specifies the allowable costs for the pricing of interconnection related to the provision of NP for the purpose of ensuring that pricing for interconnection related to the provision of NP as provided for in Regulation 26(1) of the Universal Service Regulations is cost oriented. It also clearly identifies who pays the NP charge and to establish whether retail users should pay a direct charge for NP.

With regard to the issue raised by one respondent on the failure of ComReg to state what further action it planned to take, ComReg has set out a number of points in this document, in the section on 'Next Steps'. This same respondent also queried whether ComReg's proposed plan would have an impact on operators, especially smaller operators. ComReg intends to request price submissions from operators as appropriate. However, ComReg does not anticipate that the impact of the 'next steps' will be overly burdensome in terms of time and cost on operators. ComReg will be mindful of this in its request for costing information.

¹⁶ Introducing Number Portability in Ireland

Regulation 26(3) of the Universal Service Regulation includes an obligation which may include a requirement that there shall be no direct charges to subscribers for NP. ComReg does not agree with one respondents view that, to prohibit direct charges to subscribers for NP is unjustified on the basis that direct charges to retail customers for NP are not currently implemented by any mobile operator and the competitive dynamics in the mobile market are such that they are not likely to be introduced in the future. ComReg is of the view that there is nothing definitive that suggests that operators might not decide to introduce a retail charge at some stage in the future. ComReg is now setting the principle that there shall be no direct charges to subscribers for NP, so as to provide a level of certainty to subscribers.

One respondent believed that where an operator is compelled to withdraw an existing retail porting charge and the operator fully absorbed the porting costs itself, its profitability would be reduced with implications for its incentive to invest and innovate and that this may be a factor for operators in the fixed market where such retail porting charges are present. ComReg are not currently aware of retail porting charges in the fixed market but is of the opinion that the cost involved in terms of recovery would not be significant.

ComReg cannot at this point take further action on the level of the actual charge until it has completed its pricing review on operator pricing submissions regarding NP. Follow-up meetings with operators may also be necessary in order to ensure compliance with the specifications. Depending on the outcome of the review, if it is considered that a universal charge is relevant for fixed porting and a separate universal charge for mobile porting, it will be necessary to consult further in terms of setting such charges.

One operator made a comment that the porting charge should be abolished altogether. However, Regulation 26(2) of the Universal Service Regulation implies that an operator can charge for the provision of NP on the basis that the charge is cost oriented. Thus charges are acceptable as long as they are cost oriented, and there are no direct charges to subscribers.

9 Next Steps

On foot of this specification ComReg proposes to proceed with the following tasks:

- Compliance with the new requirements (specifications) to ensure cost orientation will be mandatory for all operators. Generally, ComReg intends to monitor compliance with these new requirements as necessary. ComReg will request price submissions from operators (fixed and mobile) as appropriate. ComReg will make such requests, in writing, so that operators can justify their NP charges by means of a detailed submission on their compliance with the principles specified. Operators must ensure that any pricing for interconnection related to the provision of NP comply with the principles set out in this paper. A request for this information will be made to the appropriate operators by ComReg over the coming months.
- ➢ As part of this process, ComReg may enter into bilateral discussions with the relevant operators to ensure/aid compliance.
- Depending on the outcome of ComReg's review of the price submissions, if it appears that a universal charge may be appropriate for fixed or mobile (i.e. fixed and mobile would have a separate charge because of the different characteristics of the porting process) ComReg will further consult in order to set such charges.

10 Appendix

Mobile Number Portability

(Analysis provided by Cullen International)

The Open Network Provision ("ONP") framework did not require mobile number portability (MNP). However, Article 30 of the <u>Universal Service Directive</u> (2002/22/EC) states:

(1) "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.

(2) NRAs shall ensure that pricing for interconnection related to the provision of number portability is cost oriented and that direct charges to subscribers, if any, do not act as a disincentive for the use of these facilities.

(3) NRAs shall not impose retail tariffs for the porting of numbers in a manner that would distort competition, such as by setting specific or common retail tariffs."

The table below shows:

- the deadline for introduction of MNP and the national legal basis;
- whether an inter-operator charge per ported number is levied;
- who pays the inter-operator charge, the donor or the recipient operator;
- the total number of ported numbers; and
- the technical solution.

MNP can be implemented either by onward (indirect) routing or by direct routing.

- With **onward routing**, a call to a ported mobile number is routed to the donor network (i.e. the mobile network to which the called party previously subscribed to), which then forwards the call to the recipient network (i.e. the mobile network providing service to the subscriber after porting).
- With **direct routing**, a central or distributed database of ported numbers is used for routing calls to ported mobile numbers directly to the recipient network:
- All calls query ACQ

The originating operator consults the database for all calls to mobiles.

• Query on release – QoR

The originating operator consults the database only when the call to the ported number is rejected by the donor network.

| | Deadline for introduction and legal basis | Inter-operator charge per ported number | Who pays Donor or recipient? | Total number of ported numbers | Technical solution | Aug 07 |
|----|---|---|------------------------------------|---|--|-----------|
| AT | Oct. 16, 2004 § 23 TKG 2003 Number Portability Ordinance (NÜV) TKK decisions (see below) | €8.21 (see below) Lower, if more than 25 numbers are ported in the same process: 26-100: €5.75 101-500: €5.34 | Recipient | 217k (Dec. 31, 2006) <u>RTR Telekom</u> <u>Monitor</u> 2/2007 | Direct routing (ACQ) with distributed database (optional for fixed operators) | ОК |

| | Mobile Sectors | | | | | |
|----|--|---|--|--|---|-----------|
| | Deadline for introduction and legal basis | Inter-operator charge per ported number | Who pays Donor or recipient? | Total number of ported numbers | Technical solution | Aug 07 |
| | | 501-1000: €4.52 | | | | |
| | | >1000: €4.11 | | | | |
| | On Oct. 1, 2003 the M Ordinance (NÜV). | inistry of Transport, Inn | ovation and | Technology adopt | ed a MNP | |
| | implement MNP by O | adopted dispute settlen ct. 16, 2004. In these de f insufficient data on fut | cisions TKK | | | |
| | | K <u>decided</u> to forbid Mob § 23 TKG which forbids | | | | |
| | various reasons and Tl imposed a price ceiling relation is defined by T process, see above). So inter-operator charges | Administrative Court rep KK had to adopt new de g of €3.21 for the inter-o FKK's decisions (lower, ome MNOs had already before TKK's decisions ad tele.ring agreed on € | cisions. In its operator char, if more than made volunt . In particula | s <u>decisions</u> of Maro ges between those 25 numbers are p ary contractual aga r, T-Mobile agreed | ch 6, 2006 TKK operators, whose orted in the same reements on | |
| BE | Jan. 1, 2002 (only number change notice) Full MNP implemented on Oct. 1, 2002 Royal Decree of Sept. 23, 2002 on MNP Royal Decree of | From Oct. 2002 to Oct. 2005 • Simple installation: €3.86 • Complex installation: €23.41 <u>BIPT decision</u> of Sept. 16, 2003 (challenged by Mobistar). | Recipient | 1.42m (Oct. 2006 - European Commission 12 th implementation report) | Central database with direct routing (ACQ) | ОК |
| | March 16, 2000 as amended following MNP introduction | | | | | |
| DK | July 1, 2001 <u>§36,</u> <u>Telecommunications</u> <u>Law</u> See also <u>Rules and</u> <u>procedures for</u> <u>Number Portability</u> adopted by Telecommunications Industry Association and <u>Prices</u> | DKK 72 (€9.7) | Recipient | 2.04m since introduction, of which 233K during 2H 2006 (<u>NITA, Dec.</u> 31, 2006) | Central database with direct routing (ACQ) – Operators Clearing House (OCH) | ОК |
| FI | July 25, 2003 FICORA Regulation of July 27, 2007 (<u>46</u> <u>F/2007 M</u>) on NP (in English) Section 51 of the <u>Communications</u> <u>Market Act</u> | Receiving MO pays: • a 'porting fee' per ported number to NUMPAC depending on the technical solution of MO's connection to the database (research under way | Recipient | 3.2m (<u>NUMPAC</u> , July 2007) | Central database with direct routing (ACQ) | ОК |

| | Mobile Sectors | | | | | | |
|----|---|--|------------------------------------|---|---|-----------|--|
| | Deadline for introduction and legal basis | Inter-operator charge per ported number | Who pays Donor or recipient? | Total number of ported numbers | Technical solution | Aug 07 | |
| | 393/2003 | for exact amount) an inter-operator fee to the donor MO per ported number to cover costs associated with closing the subscription (research under way for exact amount). <u>NUMPAC</u> is a joint venture between TeliaSonera, Finnet and Elisa administrating the central database. | | | | | |
| FR | July 1, 2003 (original deadline of Jan. 1, 2001 not met) LRT 96 Art. L34-10 <u>ART Guidelines</u> of Aug. 1, 2002 <u>modified</u> in Dec. 2005 ARCEP <u>decision</u> of March 2006 specifying a new procedure (max. 10 days) | €15.2 | Recipient | > 1m as of March 31, 2007, of which 112 500 during Q1 2007 <u>ARCEP's</u> <u>market</u> <u>observatory</u> | Phase 1 (since July 1, 2003): Onward routing Phase 2 (since May 2007): Central database with direct routing (ACQ) | ОК | |
| DE | Nov. 1, 2002 (date decided by RegTP on Aug. 8, 2001) § 43 (5) TKG 1996 § 46 (1) <u>TKG 2004</u> On Dec. 1, 2004 RegTP issued an order stating that subscribers may not be charged more than €29.95 for porting a mobile number. | No charges | - | 1,111,878 (Dec. 31, 2006) Source: BNetzA | Central database with direct routing (ACQ) (optional for fixed operators) | ОК | |
| IE | July 25, 2003 <u>ODTR 01/03</u> and <u>01/36</u> <u>ComReg 03/03</u> | €20 | Recipient | 857k (June 2007) Source: ComReg | Central database (ACQ) Only one fixed operator has implemented | | |

| | Mobile Sectors | Inter energies shows | Whe man | Total number of | Technical | Aug |
|----|--|--|------------------------------------|--|---|-----------|
| | Deadline for introduction and legal basis | Inter-operator charge per ported number | Who pays Donor or recipient? | Total number of ported numbers | Technical solution | Aug 07 |
| | | | | | direct routing, the others route via MOs. | |
| IT | April 30, 2002 Electronic <u>Communications</u> <u>Code</u> (Legislative decree of Aug. 1, 2003, n.259) (Art. 80) AGCOM Decisions <u>12/01/CIR</u> of June 7, 2001; <u>19/01/CIR</u> of Aug. 7, 2001; <u>22/01/CIR</u> of Oct. 10, 2001; <u>7/02/CIR</u> of March 28, 2002; <u>13/02/CIR</u> of Nov. 28, 2002; <u>17/06/CIR</u> of May 4, 2006 | Not to exceed the charge for fixed number portability established by AGCOM decision <u>10/00/CIR</u> : Lira 19,400 (€10) AGCOM decision <u>13/02/CIR</u> of Nov. 28, 2002 | Recipient | 11.86m (Q1 2007) Source: AGCOM | Direct routing (ACQ) with distributed database. | ОК |
| LU | Feb. 1, 2005 (original deadline was July 6, 2004) ILR <u>decision</u> 04/77/ILR of July 6, 2004 on introduction of MNP with <u>comments</u> ILR <u>decision</u> 04/78/ILR of July 6, 2004 on the technical solution for MNP with <u>comments</u> | €13 | Recipient | 47,422 (July 31,2007) Source: ILR | Central database The "Groupement d'Intérêts Economiques Telcom"(GIE <u>Telcom</u>) which is composed of operators and providers of mobile telephony services, has been created to manage the database. | ОК |
| NL | Jan. 1, 1999 Decree 635 (Official Journal 1998) OPTA Decision on MNP of June 27, 2001 | No charges (but receiving operator can charge administrative costs with a maximum of $\textcircled{0.08}$). | Recipient | 1.23m (Oct. 2006 - European Commission 12 th implementation report) | Central database (COIN) with direct routing | ОК |
| NO | Nov. 1, 2001 § 3-5 of the <u>Regulation 401/2004</u> on electronic communications networks and services (in English) | Charge should be cost oriented. Around NKr 100 (€12,54) Under § 3-7 of the regulation, the donor operator may charge | Recipient | 2.65m (<u>NPT</u> , July 31, 2007) | Central database with direct routing | ОК |

| Response to Consultation and Specification on Number Portability in the Fixed and |
|---|
| Mobile Sectors |

| | Mobile Sectors | | | | | |
|----|---|--|------------------------------------|---|--|-----------|
| | Deadline for introduction and legal basis | Inter-operator charge per ported number | Who pays Donor or recipient? | Total number of ported numbers | Technical solution | Aug 07 |
| | | the receiving operator the costs of porting a number. | | | | |
| PT | Jan. 1, 2002 Ministerial Order N° 12 809/2000 of June 2000 Art. 54 of Law 5/2004 of Feb. 10, 2004 | Operators may charge administrative costs (Art. 19 § 2 of <u>Regulation 58/2005</u> on portability) | Recipient | 143K (<u>ANACOM,</u> <u>June 2007</u>) | Central database (QoR). | ОК |
| ES | Nov. 25, 2000 Royal Decree-Law 16/1999 Technical specifications for MNP approved by CMT Resolution of June 8, 2000 as subsequently amended. Last amendment March 1, 2007 | Donor operator does not request any payment from recipient operator. | Not applicable | > 10.2m (end Dec. 2006) <u>CMT annual</u> (2006) report, page 57 | Direct routing (ACQ). | ОК |
| SE | Sept. 1, 2001 Electronic Communications Act (2003:389), Chapter 5; §§9-11 <u>PTS regulation of June 12, 2007</u> (PTSFS 2007:7) | Except for TeliaSonera, operators agreed not to charge each other for number portability in order to avoid unnecessary billing costs. TeliaSonera <u>charges</u> the recipient MNO SEK 16 (€3.90) per ported mobile number | See previous column | 2.45m (<u>SNPAC</u> , June 30, 2007) | Central database (SNPAC) with direct routing (ACQ) | ОК |
| СН | March 1, 2000 Ordinance of ComCom on LTC of Nov. 17, 1997 | CHF29 (€19) | Recipient | 99K (end 2005) Source: Bakom | Central database with direct routing (ACQ). See OFCOM <u>technical</u> <u>specifications</u> . | |
| UK | Jan. 1, 1999 General Condition <u>18</u> (number portability) | Under the onward routing system for routing calls to ported numbers currently in place in the UK, a donor conveyance charge (DCC) is payable by | Recipient | No recent data published by Ofcom | Onward routing, but Ofcom is consulting on proposals to move to direct routing, starting with | ОК |

| Response to Consultation and Specification on Number Portability in the Fixed and |
|---|
| Mobile Sectors |

| Deadline for | Inter-operator charge | Who pays | Total number of | Technical | Aug |
|------------------------------|---|---------------------|-----------------|--|-----|
| introduction and legal basis | per ported number | Donor or recipient? | ported numbers | solution | 07 |
| | the recipient network to the donor network to cover the conveyance of the call through the donor network. Ofcom is consulting on lowering this charge from 0.8 ppm (pence per minute) (eurocents 1.2) to 0.1 ppm (eurocents 0.15). See below. Because subsidised | | | mobile-to- mobile calls from Sept. 1, 2009. See below. | |
| | handsets are a common practice in the UK, there may also be a charge associated with unlocking of the SIM card. | | | | |

| Mobile Sec Deadline for | | Inter-operator charge | Who pays | Total number of | Technical | Aug | |
|----------------------------|---|---|--|--|---|-----|--|
| introduction basis | and legal | per ported number | Donor or recipient? | ported numbers | solution | 07 | |
| Donor conv | veyance ch | arge | | | | | |
| | | m published for consult of O2, Orange and T-M | | | | | |
| all mobile of Ofcom) det | H3G believes that the existing rate of 0.8 ppm (pence per minute) (eurocents 1.2) charged by all mobile operators, and which has been in place since Jan. 1, 1999 following an Oftel (now Ofcom) determination, is now out of date and requested Ofcom to determine a reasonable level for the DCC. | | | | | | |
| donor conve | Based on Ofcom's estimate of the reasonable level of efficient costs incurred in providing donor conveyance, Ofcom's provisional conclusion is that DCC should be reduced to 0.1 ppm (eurocents 0.15). | | | | | | |
| The closing | date for co | omments was August 3, | 2007. | | | | |
| Transition | from onwa | ard routing to direct ro | outing | | | | |
| from the cu | On July 17, 2007 Ofcom published for consultation <u>proposals</u> to set deadlines for a move from the current onward routing system for routing calls to fixed and mobile ported numbers to a direct routing system and also to shorten the lead time for porting mobile numbers. | | | | | | |
| Specifically | Ofcom pro | oposes to require: | | | | | |
| • | capable of This datab that the co | collaborate on the desi supporting direct routin ase is to be implemented mmercial arrangements as well as its technical sp | ng of calls to d and popula for procurin | fixed and mobile ted by Dec. 31, 20 g, operating and u | ported numbers. 008. Ofcom says sing the common | | |
| • | | erators to implement All direct routing of mobile | | | | | |
| • | - | B to be used to direct-room fixed providers, by De | | calls to ported nun | nbers, including | | |
| Regarding to operators to | | e for porting mobile nu | mbers, Ofcor | n proposes to requ | iire mobile | | |
| • | reduce it from five to two working days by March 31, 2008, while maintaining the current process where the user first needs to contact the donor provider to obtain a porting authorisation code which the user then gives to the new recipient operator; and | | | | | | |
| • | recipient le | r instant" (maximum two ed process meaning that /hen switching. | | | | | |
| The closing | date for co | omments is Sept. 10, 200 |)7. | | | | |

GLOSSARY OF ACRONYMS USED IN THE CULLEN ANALYSIS

| ТКС | Telekommunikationsgesetz i.e. Telecommunications Act |
|--------|---|
| ткк | Telekom-Control-Kommission, the telecom National Regulatory Authority in Austria (http://www.rtr.at/en/tk/TKK) |
| MNO | Mobile Network Operator |
| BIPT | Belgian Institute for Post and Telecommunications |
| ΝΙΤΑ | National IT and Telecom Agency in Denmark |
| FICORA | Finnish Communications Regulatory Authority |
| NUMPAC | Numpac is a provider of number portability functionality for telecommunications companies and other possible parties in Finland. It assumes responsibility for the management of the master system required for number portability. (http://www.numpac.fi/index.php?site=127) |
| ARCEP | Autorité de Régulation des communications électroniques et des postes i.e. Regulatory authority for electronic communications and post in France |
| ART | Autorité de réglementation des telecommunications - Telecommunications Regulation Authority (former ARCEP) |
| LRT | Loi de Régulation des Télecommunications i.e. Telecommunications Law or Act in France |
| RegTP | Regulierungsbehörde für Telekommunikation und Post i.e. Regulatory Authority for Telecommunications and Post in Germany (former Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen (BNetzA)) (NRA) |
| ILR | Institut Luxembourgeois de regulation - Luxembourg Institute for Regulation (NRA) |
| ΟΡΤΑ | Onafhankelijke Post en Telecommunicatie Autoriteit -, Office for Post and Telecommunications in the Netherlands |
| NPT | Post-og Teletilsynet – Norwegian Post and Telecommunications Authority |
| СМТ | Comisión del Mercado de las Telecomunicaciones i.e. Telecommunications Market Commission in Spain |
| PTS | Post och Telestyrelsen i.e. National Post and Telecom Agency in Sweden |
| SNPAC | Swedish Number Portability Administrative Centre (http://www.snpac.se/indexEN.htm) |
| СОМСОМ | Commission fédérale des communications i.e. Federal Communications Commission |
| LTC | Loi sur les télécommunications (LTC) i.e. Telecommunications Law in Switzerland |