



Revisions to the Number Portability Functional Specification

*A Consultative Document issued by the
Director General of Telecommunications*

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Summary

S.1 Number portability is a facility provided by telecoms operators or, as the case may be, systemless service providers, which enables customers to keep their telephone numbers when they change their supplier.

S.2 The *Number Portability Functional Specification* is a document published from time to time by the Director General of Telecommunications. It sets out, among other things, the technical and operational scope of number portability.

S.3 This consultation document seeks comments on proposed revisions to the current Functional Specification (Issue No.3 of 30 June 1998). There are three main changes proposed.

- To bring the Functional Specification into line with recent UK and EC legislation. This includes the extension of number ranges to which portability applies and the obligations and responsibilities of systemless service providers.
- To relax the requirement that licensed operators ensure that unlicensed service providers provide portability. It is proposed that operators should retain responsibilities for those service providers to whom they directly allocate numbers.
- To relax the current mobility rule to offer telecoms companies greater flexibility to meet customer demands to keep their numbers when changing their supplier and moving address.

S.4 Oftel also takes this opportunity to set out why it considers that the rights afforded to 'subscribers' under the legislation do not apply to resellers or service providers within the supply chain for fixed telecommunications services.

S.5 This consultative document is being circulated widely. Whilst the subject of the consultation necessarily concerns detailed regulation, the proposed changes impact on customers, non-licensed telecoms companies as well as licensed operators. Comments are invited from all interested parties by Friday 14 September. Full details on the consultation arrangements can be found in Chapter 4.

S.6 Following receipt and consideration of comments or objections, Oftel proposes to publish a new Issue Number 4 of the Functional Specification later this year.

Chapter 1

Background

1.1 Regulations, whether through licence conditions or (in the case of unlicensed telecoms service providers) through free standing regulations, require the provision of number portability in accordance with the rules set out in the Functional Specification.

1.2 The current version (Issue Number 3) was issued in June 1998. (This can be found on Oftel's website www.oftel.gov.uk.) Since then, certain specific (and amended) provisions about number portability have been adopted into the Interconnection Directive (97/33/EC) by the amendments provided for in the Numbering Directive (98/61/EC). Oftel and the Department of Trade and Industry (DTI) consulted on draft implementing regulations in October 1999. Oftel issued a Statement, entitled *Numbering Directive, Number Portability Requirements*, in January 2000 in which UK policy and the new regulations are set out (both documents are available via Oftel's website). The regulations came into force on 19 January 2000.

Fixed portability

1.3 The Numbering Directive deals specifically with the retention of numbers on the *fixed public network and the ISDN*. It fundamentally allows customers, taken on by providers of fixed telecoms services, to *require* those providers to provide number portability. Moreover, the implementing regulations (by virtue of either modifying certain licences granted under section 7 of the Telecommunications Act 1984 to include a new number portability condition or setting out separate statutory obligations in respect of systemless service providers) apply to all companies providing fixed telecommunications services to the public using telephone numbers, whether they are licensed operators or not.

1.4 The Functional Specification therefore needs to be revised to take account of these changes in regulation. It also offers the opportunity to consider other areas where changes have been suggested.

Mobile portability

1.5 Mobile and paging numbers are not covered by the implementing legislation. Numbers for mobile services (but not paging) are however, already portable by virtue of licence obligations based on reciprocal operator agreements.

1.6 However, the Functional Specification includes rules for both fixed and mobile portability. Rules relating to the provision of mobile number portability should remain generally unaffected by the proposed changes outlined in this document.

Chapter 2

Proposed changes

2.1 This chapter should be read in conjunction with both the current Functional Specification (Issue No 3 of 30 June 1998) and the draft revised Functional Specification at Annex A. References to terms below (such as Donor and Recipient Operators) have the same meaning as ascribed to them in the draft revised Functional Specification.

2.2 Oftel proposes that the introductory paragraphs, setting out the different phases of the establishment of number portability, should be revised to reflect the current position where all numbers, other than paging numbers, are portable. The applicability of the changes in the number portability regime for fixed services brought about by the Numbering Directive is also highlighted.

Section 1 Donor Operator's Rules

Rule 2

2.3 It is proposed that the rule should be modified to better reflect that the provision of Portability is a licence requirement.

Rule 4

2.4 It is proposed that this rule is transferred to Common Rules (see draft Common Rules, Rule 10) as it refers to sub-allocation of numbers, rather than porting numbers, to Service Providers. Recipient Operators as well as Donor Operators can sub-allocate numbers to Service Providers.

Section 2 Recipient Operator's Rules

Rule 4

2.5 This rule applies to *geographic* numbers only.

2.6 The intention behind the proposed change to this rule is to allow operators, greater flexibility within the context of number portability arrangements to meet customer demand to keep their numbers when changing address – a service often referred to as *geographic mobility*. Geographic mobility is most frequently offered, for a nominal fee, to customers who move address but stay within the same local exchange area.

2.7 Geographic mobility is quite distinct from the regulated requirement to provide number portability. Number portability – keeping your number when switching between suppliers whilst staying at the same address – is obligatory because of the benefits to competition. Removing the inconvenience and costs of changing your number, removes a barrier to switching supplier, thereby promoting competition. These competition issues do not apply to geographic mobility.

2.8 Oftel made clear in its Statement of January 2000 that the scope of number portability, as it applies to geographic numbers, provides only that those customers who *remain at the same address* are able to change operator and keep their number.

2.9 Operators are not obliged to offer subscribers any facility whereby they may transfer their existing number to a new address, though most voluntarily offer such a service over a defined area.

2.10 Similarly, in situations where a customer wishes to change supplier and move address (whether at the same time or subsequently), the Recipient Operator (the customer's preferred operator) is under no obligation to meet the customer's request to retain their number(s). This scenario is referred to as Simultaneous or Subsequent Geographic Mobility. However, if the Recipient Operator wants to meet a customer's request to both switch supplier and move address, then certain special arrangements apply. They also apply if the customer wants to move subsequently ie after having switched to a new supplier.

2.11 Recipient Operator Rule 4 currently states that the provision of Simultaneous or Subsequent Geographic Mobility, on a voluntary basis, may only take place *within* the Service Area of the Donor Operator, that is, the normal area where the Donor Operator might allocate such a number. This area is usually also the area where geographic mobility is offered. This provision ensured that where a customer requested such a service, and the Recipient Operator was willing to supply, the Donor Operator was not unduly disadvantaged by having to port out a number to a new location from where it would be difficult to port back, should the customer wish to return. This policy ensured that the voluntary geographic mobility service was, to a limited extent, unaffected by whether a customer had ported and reflected competitive neutrality. It provided more flexibility than a situation where the Donor Operator could effectively prevent a new operator from providing any geographic mobility service. The rule was, at the time, seen as a reasonable balance and allowed appropriate flexibility to meet customers' wishes to be able to switch suppliers and move address whilst retaining their phone numbers.

2.12 Since then, it has become increasingly apparent that there is demand from customers for increased flexibility. This has been reflected in both representations from consumers direct to Oftel and from operators who wish to be able to meet their customers' demands. Oftel considers that it is therefore appropriate to review the current arrangements.

2.13 In reviewing the current policy, Oftel has noted that subsequent to the implementation of the Numbering Directive, fixed network portability has ceased being subject to reciprocal operator agreements and become a customer right. By virtue of the Numbering Directive and implementing regulations this right only extends to situations where a number is being used at a 'specific location'. Such a location would, in practice, be somewhere within the Service Area of the Donor Operator. (Under reciprocal operator agreements for portability that applied prior to adoption of the Numbering Directive, the ported number could not move outside the Service Area because portability obligations would apply.) Oftel now proposes to take the view, in the light of such current practice, that there is nothing stopping a number moving outside the Service Area, but were it to do so, the customer would lose his right to number portability, as the number is no longer at the 'specific location'. This opens up the possibility of greater flexibility in the provision of geographic mobility and provides a framework for analysing how portability applies in the case of out of area lines or numbers used with network based call forwarding.

2.14 For the avoidance of doubt, Oftel should clarify that, in the vast majority of cases, it expects operators to use geographic numbers only within the defined national code area (i.e. numbers starting 020 should remain in the London code area) otherwise the value of the geographic numbering system would be undermined. However, it recognises that there are some limited cases where an out of area service meets customers' specialist needs. While many network based call forwarding services use personal numbers in the 070 range, there is a certain market demand for delivering geographic numbers outside the normal code area.

2.15 It is therefore proposed that this rule should be amended to allow the provision of Simultaneous or Subsequent Geographic Mobility (where Recipient Operators choose to offer it) in respect of a subscriber number ported from a Donor Operator to a destination *outside* the Service Area of the Donor Operator. Any additional conveyance costs caused by such geographic mobility ought to be met by the Recipient Operator.

2.16 However, in enabling customers to benefit from this relaxation of previous policy, it is essential that they are made fully aware of the impact of their choices and decisions with regard to their rights.

2.17 In order to make clear to subscribers that they cannot exercise their portability *rights* outside the Service Area of the Donor Operator, ie they are aware of the consequences of their geographic mobility request, the Recipient Operator must inform the Subscriber *in writing* that number portability *rights* can only be exercised within the Service Area of the Donor Operator.

2.18 Once a customer has ported their number outside the Service Area of the Donor Operator, it is possible that, at some point, the customer may wish to switch supplier or switch and move again (ie to a different Recipient Operator or back to the Donor Operator). The new Recipient Operator may agree to provide such a service request, but the customer has no right to number portability. It will be a matter for that operator whether portability is provided. This may put operators with smaller Service Areas (eg BT) at a slight disadvantage to those with larger ones, but the effect is likely to be small and, in any event, in the years since portability was first introduced, BT has had plenty of time to adapt its systems to route calls between Service Areas if it wished to do so.

2.19 Operators have sought clarification from Oftel as to how portability rights and obligations apply to situations where a number is already used outside the expected geographic area. Such services include traditional "out of area" exchange lines and network based call forwarding services.

2.20 Network based call forwarding describes a service which allows a customer to take a permanent or semi-permanent divert, enabled on the network of the operator holding the geographic number allocation, to allow calls to be received at a location, possibly different to that indicated by the geographic number. Subscriber controlled call forwarding tends to be a temporary redirect arrangement which is controlled by the subscriber rather than arranged through the network operator. Calls may also terminate outside their normal area where out of area exchange lines are used. In this case, the customer's line is extended to the required location by a private circuit. Where the effect of these services means that the number is used to terminate calls outside the normal geographic code area and the customer then wishes to switch to another operator, then the Recipient Operator has no obligation to provide number portability. Donor Operators are expected to provide number portability if, in these

circumstances, the Recipient Operator wishes to provide it. Ported calls would, however, be exported directly to the Recipient Operator and the additional costs of conveyance out of area would fall to the Recipient Operator. In some cases, by bilateral agreement, a more optimum method of handover may be agreed.

2.21 It is important that calls to the emergency services are routed to the appropriate location for the customer's address. Oftel therefore proposes that Rule 4 should reflect this by stating that Recipient Operators are to be responsible for ensuring that emergency service contact records are maintained correctly so that calls from Subscriber Numbers, whatever their location (whether or not this location is inside or outside the Service Area of the Donor Operator), are routed to the appropriate emergency authorities.

Section 4 Common Rules

Rule 10

2.22 It is proposed that this rule be transferred to Section 4 (Common Rules) from Section 1 (Donor Operator's Rules) as outlined in paragraph 2.4 above.

2.23 The intention behind the proposed change to this rule is to relax the previous requirement whereby the Donor Operator was responsible for ensuring that any numbers sub-allocated to any service providers (including mobile service providers) remain capable of being ported between operators.

2.24 This issue has been debated at some length between the industry community and Oftel against a background where, particularly in relation to non-geographic services, the supply of services to customers has changed. Whereas previously direct provision by operators or via single service provider to customers tended to be the norm, it is now not uncommon to find a 'chain' of service providers between the network operator and the end-customer.

2.25 Industry has opined that, notwithstanding that practical difficulties of complying with the regulatory requirement, it is appropriate for the regulator to impose measures that can be directly enforced on the relevant parties.

2.26 In its Statement of January 2000 entitled *Numbering Directive, Number Portability Requirements*, Oftel indicated that the provisions of that Directive's implementing regulations (ie the so called Number Portability Regulations, S.I. 1999 No 3449), particularly those concerning systemless service providers, would allow scope for a review of the obligations on licensees. Oftel agreed that the obligation to ensure through contractual means that successive sub-allocations of numbers remain portable is seemingly no longer necessary.

2.27 Since the January 2000 Statement, operators have expressed general concerns about speedy resolution in relation to non-licensed service providers failing to meet portability obligations or otherwise not meeting industry agreed practices supporting the provision of portability. Oftel felt that there was broad consensus that taking non-licensed service providers to court would not necessarily be the quickest or most efficient means of resolution.

2.28 Having carefully considered the industry position, Oftel proposes to relax the current obligation requiring operators to ensure that numbers remain capable of being ported. Oftel proposes that operators should only be responsible for ensuring compliance by non-licensed service providers with whom they have directly contracted and that this obligation should apply to existing contracts.

2.29 This proposal does not fully meet the industry position. Oftel maintains the view that withdrawing the obligation on operators in full and relying on the enforcement powers to take service providers to court under the relevant regulations will not result in the quickest or most effective way of ensuring that customers are able to take advantage of portability.

2.30 Whilst acknowledging that the proposal may not represent an ideal solution to solving the issue of service provider compliance with the portability obligations, Oftel considers that the co-regulatory approach proposed should provide a means of ensuring that portability is provided to subscribers in a timely manner, whatever type of telecoms company provides service.

2.31 Oftel proposes to use the Number Portability Regulations to ensure that those service providers (specifically systemless service providers) that have received a sub-allocation of numbers from another service provider provide portability. As the Regulations only apply to numbers for fixed services, this proposed relaxation only applies to fixed numbers.

2.32 Where a portability facility is already in place, between the Donor and Recipient Operator, the provision of number portability to customers should not significantly add to the time it would normally take to provide a service where number portability is not involved irrespective of the number of service providers involved.

2.33 Oftel would therefore expect that operators and systemless service providers ensure that existing industry processes and practices support timely porting of customer numbers independent of the organisation providing services.

2.34 Systemless service providers may well have to contract with a licensed operator with an appropriate system in order to meet their regulatory obligations.

Rule 11

2.35 While Oftel has agreed to host industry portability process manuals on its web site to ensure easy access to them, Oftel is not responsible for updating the manuals. Similarly, Oftel is not responsible for answering questions relating to the industry processes set out in the manuals, unless they impact on portability obligations set out in operating licences and regulations.

Annexes

2.36 The list of Numbers that are portable in Annexes A and B has been updated to reflect new numbers ranges and to reflect that personal numbers are now portable.

Chapter 3

Portability rights

3.1 Following the implementation of legislation reflecting the number portability requirements of the Numbering Directive (98/61/EC), it has come to Oftel's attention that some confusion exists as to whether the rights afforded to 'subscribers' to be able to keep their numbers extend to service providers or resellers. Whether or not a service provider can be a 'subscriber' and thus have a right to number portability is not entirely clear from the terms of the relevant legislation.

3.2 Oftel considers that whilst it is arguable that, on a plain reading of the legislation, a service provider can be a 'subscriber', should the matter be tested in the courts, this argument is unlikely to be successful. There are two main reasons why Oftel takes this view.

3.3 First, a purposive interpretation of the EC legislation in question – the Interconnection Directive (97/33/EC) as amended by the Numbering Directive (98/61/EC) – strongly suggests that the term 'subscriber' is intended to refer to (end-) users or consumers, rather than resellers. Furthermore, the term 'subscriber' is used interchangeably with those other terms. This intention is expressly referred to and summed up in the recitals to the Numbering Directive's preamble as follows:-

*“...Whereas this consultation [in the 1996 European Commission Green Paper on a numbering policy for telecommunications services in Europe, COM(96)590] underlined the importance of equal quantitative and qualitative access to numbering resources for all market players and the crucial significance of adequate numbering mechanisms, in particular for number portability and carrier selection, as key facilitators of **consumer** choice and effective competition in a liberalised telecommunications environment; [Emphasis added]”*

3.4 Secondly, the term 'subscriber' is used elsewhere in the standard schedules to the Public Telecommunications Operator (PTO) licences in respect of other obligations, such as itemised billing (Condition 13). Whilst it is not necessarily the case that the term must have exactly the same meaning in relation to each licence obligation, although ordinarily it should, the term 'subscriber' is synonymous with end-user or consumer in this context.

Chapter 4

How to make comments

4.1 Oftel seeks the views on the proposed revisions to the Functional Specification contained in this document by Friday 14 September 2001. A further two weeks will be allowed to submit comments on comments.

4.2 Any comments on the proposed variations to the Functional Specification – or on other issues arising out of this consultation document (including comments on any aspects of the Functional Specification for which Oftel has not proposed any changes in the substance) – should be made in writing and sent to:

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Internet access

4.3 Oftel has a free e-mail based mailing list to help people stay informed about its work. Each time an Oftel document is published and placed on Oftel's website, subscribers to the list receive an e-mail informing them of the document. To register for this service you should visit the *What's New* page on the Oftel website.

Confidential responses

4.4 Confidential responses should not be sent via the Internet. Written comments will be made publicly available in Oftel's Research & Intelligence Unit, except where respondents indicate that their response, or parts of it, are confidential. Respondents are therefore asked to separate out any confidential material into a confidential annexe, which is clearly identified as containing confidential material. In the interests of transparency, respondents are asked to avoid confidentiality markings, wherever possible.

Viewing comments made

4.5 Appointments to view written comments in Oftel's Research & Intelligence Unit, which must be made in advance, can be arranged by calling 020 7634 8761 (fax: 020 7634 8946).

Other formats

4.6 Copies of the full consultation document are available on disk. The Summary can be made available in large print, braille and tape formats. Please contact the Oftel Research and Intelligence Unit on 020 7634 8761 for more information. Number portability information also appears on Oftel's website: www.oftel.gov.uk

Next steps

4.7 Following the completion of the consultation exercise, Oftel will publish Issue Number 4 of the Functional Specification that takes into account the views of respondents later this year.

The consultation criteria

4.8 Oftel considers that this document meets the Cabinet Office code of practice on written consultation documents. The code is reproduced below for convenience. If you have any comments or complaints about this consultation **process**, please contact:

Oftel Co-ordinator for the code of practice
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- 1) Timing of consultation should be built into the planning process for a policy (including legislation) or service from the start, so that it has the best prospect of improving the proposals concerned, so that sufficient time is left for it at each stage.
- 2) It should be clear who is being consulted, about what questions, in what timescale and for what purpose.
- 3) A consultation document should be as simple and concise as possible. It should include a summary, in two main pages at most, of the main questions it seeks views on. It should make it as easy as possible for readers to respond, make contact or complain.
- 4) Documents should be made widely available, with the fullest use of electronic means (though not to the exclusion of others), and effectively drawn to the attention of all interested groups and individuals.
- 5) Sufficient time should be allowed for considered responses from all groups with an interest. Twelve weeks should be the standard minimum period for consultation.
- 6) Responses should be carefully and open-mindedly analysed, and the results made widely available, with an account of the views expressed, and the reasons for decisions finally taken.

7) Departments should monitor and evaluate consultations, designating a consultation coordinator who will ensure that all the lessons are disseminated.

Annex A

Draft revised Number Portability Functional Specification

NUMBER PORTABILITY FUNCTIONAL SPECIFICATION

**Issue No: 4 – GEOGRAPHIC, NON-GEOGRAPHIC AND MOBILE PORTABILITY
XX June 2000**

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Rules of the Functional Specification

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Purpose of this document

Operator or Service Provider Portability is a facility that ultimately allows subscribers to change the telecommunications company providing service while keeping their telephone number. Telecommunications Act licences and the free standing implementing Regulations of the Numbering Directive (98/61/EC) set out that Portability should be provided by one telecommunication Operator or Service Provider to another in accordance with the Functional Specification. The Functional Specification sets out: (i) the technical and operational scope of the Portability facility to be provided; (ii) specific rules relating to processes to be carried out by telecommunication Operators which are necessary to ensure the efficient provision of Portability between operators; and (iii) some general rules and other principles concerning the efficient use of Numbers where Portability services are being provided.

As the scope of the Functional Specification primarily concerns the technical and operational process to enable efficient porting between networks, the direct applicability of many of its Rules to Systemless Service Providers is somewhat limited. However, porting is not restricted to numbers being transferred between networks and porting between Systemless Service Providers on the same network will happen increasingly often. Where Systemless Service Providers are involved in a portability request, whether involving porting a number on the same network or between networks, Oftel's primary concern is that numbers are passed on in a timely manner to any party legitimately requesting a number to be ported.

Scope of Portability

In January 2000, Oftel implemented the number portability provisions of the Numbering Directive (98/61/EC) by virtue of the provisions in the Telecommunications (Interconnection) (Number Portability, etc) Regulations 1999, S.I. 1999 No. 3449 (the “Number Portability Regulations”). This revision of the Functional Specification reflects the changes brought about by the Numbering Directive and other changes considered necessary.

The Number Portability Regulations require that Subscribers should be able, if they wish, to keep their telephone numbers when they change the Operator or Service Provider providing their *fixed* telecommunications services. In order to allow Subscribers to retain their telephone number when they change the Operator or Service Provider supplying services, numbers in the Geographic Number Ranges (currently described in the Numbering Conventions Part B3) and Non Geographic Number Ranges (currently described in the Numbering Conventions Parts B7–B9) are required to be portable. The Number Portability Regulations do not cover portability for mobile and paging number ranges (these number ranges are currently set out in the Numbering Conventions Part B7). The requirement to provide a Portability facility to other mobile operators in respect of mobile number ranges is set out licences granted under section 7 of the Telecommunications Act 1984 to mobile public telecommunication operators.

A list of non geographic numbers from the Non Geographic Number Range that are required to be portable can be found at Annex A.

Annex B sets out those mobile number ranges that are required to be portable. This list includes portability of numbers from analogue to digital networks and between digital networks, but excludes portability from a digital to an analogue network and between analogue networks. In due course, further issues of the Functional Specification will deal with any other changes to its existing Rules which may become necessary.

The lists of number ranges or categories set out in the Annexes may be updated from time to time by means of information notes published by Oftel in the Numbering Bulletin. The updates will be consolidated each time a new Issue of the Functional Specification is published.

This fourth issue of the Functional Specification relates to Geographic Portability, Non-Geographic Number Portability, Mobile Portability and Portability in general (such as in the case of portability requirements under, for instance, Regulation 8 of the Number Portability Regulations and the class licence granted under section 7 of the Telecommunications Act 1984 on 22 May 2000, the so-called TSL).

Definitions

Donor Operator

The Operator or Service Provider whose Subscriber Number(s) are in the process of being, or have been passed or ported to a Recipient Operator.

E.164

Recommendation E.164 is the International Telecommunication Union's (ITU-T's) Recommendation addressing the Numbering Plan for the ISDN era.

Geographic Mobility

A service offered by an Operator (or, as the case may be, a Service Provider) to its Subscribers whereby the calls to a Subscriber Number are routed to a new address.

Non Geographic Number Range

A number range from the Specified Numbering Scheme relating to Numbers other than those in the Geographic Number Range and excepting numbers allocated for Mobile Radio Telecommunications Services and Radiopaging Services.

Operator

Any person authorised to provide telecommunications services not being prohibited from receiving any financial benefit from their provision, and obliged by virtue of provisions in the Licence authorising the provision of such services to adopt a Numbering Plan for such Numbers as may have been allocated by the Director to that person in accordance with the National Numbering Conventions.

Parallel Running

A facility provided by an Operator when any Numbering Range is in the process of being changed and in order to assist users of the network to adjust to such a change, a caller may for a limited period of time dial a Number which has been superseded by another Number and still be connected to the called party.

Ported Number

A Subscriber Number in relation to which the facility of Portability is in the process of being or has been provided.

Personal Numbers

Numbers as defined in the National Numbering Conventions (currently in Part B7).

Recipient Operator

The Operator or Service Provider to whom Subscriber Number(s) are in the process of being, or have been passed or ported from a Donor Operator.

SCCP

The signalling connection control part (SCCP) provides, in signalling system No.7, additional features to transfer circuit related, non-circuit related signalling information, and other types of information between exchanges and specialised centres in telecommunications networks.

Service Area (applies to Geographic Portability only)

That part of the licensed area of a Donor Operator within which, at the time that any request for Simultaneous or Subsequent Geographic Mobility is made by another Operator (or, as the case may be, a Service Provider) in respect of a Subscriber Number, the Donor Operator would provide such Geographic Mobility in respect of that Subscriber Number as part of its standard provisioning practice. For the avoidance of doubt, the Service Area does not mean any larger area other than that defined by reference to such Geographic Number Ranges serving a particular exchange or area code under the Specified Numbering Scheme.

Service Number

A Number from within the Numbering Ranges designated in the National Numbering Conventions for mobile services which is used as an internal number for the provision of messaging or similar value-added services.

Service Provider

Any person who is in the business of providing telecommunications services of any description.

Simultaneous Geographic Mobility

A service offered on a voluntary basis by a Recipient Operator to its Subscribers whereby Subscriber Numbers may be retained while simultaneously changing Operator (or, as the case may be, Service Provider) and moving to a new address.

Specially Tariffed Services

A full list of Specially Tariffed Services and Personal Numbers is set out in Annex A.

Freephone: as defined in National Numbering Conventions (currently in Part B8).

Local Rate: as defined in National Numbering Conventions (currently in Part B8).

National Rate: as defined in National Numbering Conventions (currently in Part B8).

Premium Rate: as defined in National Numbering Conventions (currently in Part B9).

Subscriber

Any natural or legal person who or which is party to a contract with a provider of publicly available telecommunication services for the supply of such services.

Subscriber Number

The Number (or Numbers) which any Operator's (or, as the case may be, Service Provider's) telecommunication system recognises as relating to a particular Subscriber of that Operator (or, as the case may be, of a Service Provider).

Subsequent Geographic Mobility

A service offered on a voluntary basis by a Recipient Operator to its Subscribers whereby, if a Subscriber Number becomes a Ported Number, it may be retained if the Subscriber subsequently moves to a new address.

Subsequent Portability

A type of Portability where the Donor Operator retrieves a Subscriber Number from a Recipient Operator to whom that Number has been previously ported and ports it to a second Recipient Operator.

Systemless Service Provider

A person who provides publicly available telecommunication services but who does not run a telecommunications system within the meaning of section 4 of the Telecommunications Act 1984 by means of which such services are provided.

Transit Operator

An Operator providing, by agreement, interconnection between a Donor Operator and a Recipient Operator via Points of Connection with both Operators.

Other definitions

Other definitions, which have not been ascribed a meaning above, used in this Functional Specification shall have the meanings ascribed to them in any Operator's licence granted under section 7 of the Telecommunications Act 1984 or in that Act itself, as appropriate.

RULES OF THE FUNCTIONAL SPECIFICATION

SECTION 1: DONOR OPERATOR'S RULES

It is a Donor Operator's responsibility to ensure that all calls destined for Ported Numbers, subject to any network management actions reasonably undertaken in order to maintain network integrity and, in response to abnormal demands, are dealt with in a manner conforming to the following rules:

Rule 1

Calls to a Ported Number, whether originating on the Donor Operator's network or received from other networks, are passed to the Recipient Operator over one or more Points of Connection as agreed between the Donor and Recipient Operators, unless there is no direct interconnection between them, in which case the Donor Operator will ensure that calls to the Ported Number are passed to the Recipient Operator by means of a Transit Operator.

Rule 2

If the Donor Operator's ability to provide Portability in respect of new Subscriber Numbers, in accordance with the Number Portability Regulations, becomes restricted due to unforeseen constraints on switching or processing capacity, the Donor Operator will promptly notify relevant Recipient Operators and Oftel.

Rule 3

To the extent that Parallel Running of any groups of numbers is permitted by the National Numbering Conventions, the Donor Operator must be able to recognise a ported Subscriber on the basis of receiving a call for the ported Subscriber based on his original and new numbers.

Rules relating specifically to Geographic and Non-Geographic Portability**Rule 4**

Subject to Rule 5, before handing over each call to a Ported Number in a Recipient Operator's network, the Donor Operator shall ensure that a six-digit prefix commencing with the number 5 ('5xxxxx'), allocated for the purpose by the Oftel Numbering Unit to the Recipient Operator, and providing the identity of the Recipient Operator and, in the case of Geographic Portability, the relevant switch in the Recipient Operator's network, is inserted before the full national number.

Rule 5

Oftel Numbering Unit will allocate prefixes commencing with numbers between 504000 to 505999 for use solely in connection with Non-Geographic Portability. Within that block, prefixes commencing 5049 shall not be passed across Points of Connection, being reserved for internal network use by all Operators in connection with Non-Geographic Portability.

Rule 6

Subject to Rule 5, prefixes commencing with the number 5 shall be used in relation to Portability by the Donor Operator, and for no purpose other than to identify the Recipient Operator and, in the case of Geographic Portability, the relevant switch in its network.

Rules relating specifically to Mobile Portability:

Rule 7

The Donor Operator shall, on receipt of a call for a ported Subscriber, either:

- relay a signalling enquiry message to the recipient network, with an SCCP re-routing code in the International E.164 format +44799x abcdefghi.

For signalling messages in respect of circuit-related calls, this enables the Recipient Operator to provide onward routing instructions back to the Donor Operator's network in:

- either standard Mobile Subscriber Roaming Number E.164 International format sufficient to identify the called party within the recipient network
- or in the form of an Intermediate Routing Number (IRN) either in E.164 International format +44799x abc defghi or, in E.164 National format 799x abc defghi, to route the call into the recipient network, and allow the donor operator to forward the call appropriately.

For non-circuit related signalling messages, the Recipient Operator responds to the Donor Operator according to standard GSM procedures.

- or, for circuit-related calls, directly provide, as an option, on notification to the Recipient Operator's network, its own routing instructions to enable direction of such calls to the Recipient Operator's network and identification of the ported Subscriber using an IRN, without relaying an enquiry to the Recipient Operator's network.

In the above, x is a digit identifying the Recipient Operator's network; abc defghi represent called Subscriber number digits.

SECTION 2: RECIPIENT OPERATOR'S RULES

It is a Recipient Operator's responsibility to ensure that all calls made to Ported Numbers, subject to any network management actions reasonably undertaken in order to maintain network integrity and, in response to abnormal demands, are correctly delivered once they are correctly received from the Donor Operator, and in particular the following rules apply:

Rule 1

In the absence of call forwarding, application of the basic porting process shall not result in the looping of calls through any set of nodes between public network operator's networks.

Rule 2

The Recipient Operator will inform the Donor Operator of any change in the circumstances of the service associated with any Ported Number that may impact the Donor Operator's ability to route calls to that Ported Number. (This

includes, inter alia, in the case of Geographic Portability, transfer of Numbers to another exchange in the Recipient Operator's network, change in the size of circuit group for transferred PBX and Centrex Subscribers, and Subsequent Geographic Mobility, and, in the case of Non-Geographic Portability, significant changes in call traffic volumes expected to be generated.)

Rules relating specifically to Geographic Portability:

Rule 3

Where a call to a Ported Number originates on the same local exchange as that on which the Ported Number is held, the Recipient Operator will recognise that call, and route and terminate it within its telecommunication system, unless the Donor Operator has agreed that the call may be passed back to the Donor Operator via a Point of Connection for recognition and re-routing.

Rule 4

Before providing Simultaneous or Subsequent Geographic Mobility to a Subscriber outside the Service Area of the Donor Operator, the Recipient Operator must set out clearly in writing to the Subscriber that he will not be able to exercise his Number Portability *rights* outside the Service Area of the Donor Operator.

Recipient Operators are responsible for ensuring that emergency service contact records are maintained correctly so that calls from Subscriber Numbers, whatever their location (whether or not this location is inside or outside the Service Area of the Donor Operator), may allow the emergency authorities to reach the caller.

Rules relating specifically to Non-Geographic and Mobile Portability:

Rule 5

Where a call to a ported non-geographic or mobile number originates on the same network as that on which the Ported Number is held, the Recipient Operator may recognise that call and route and terminate it within its telecommunication system, but in the absence of such an arrangement the call will be passed to the Donor Operator via a Point of Connection for recognition and re-routing.

Rules relating specifically to Mobile Portability:

Rule 6

On receipt of an SCCP enquiry message relating to a circuit related call from a Donor Operator indicating that the Donor Operator has a call for a Ported Number, the Recipient Operator will provide onward routing instructions back to the Donor Operator's network:

- in either standard Mobile Subscriber Roaming Number E.164 International format sufficient to identify the called party within the Recipient Operator's network; or

- in the form of an Intermediate Routing Number (IRN) either in E.164 International format +44799x abc defghi or, in E.164 National format 799x abc defghi, to enable the Donor Operator to route the call into the Recipient Operator's network. Digits after the Mobile Number Portability prefix (+44799x) may be manipulated by the Recipient Operator's network to include additional routing information within the IRN.

For non-circuit related signalling messages, the Recipient Operator responds to the Donor Operator according to standard GSM procedures.

SECTION 3: TRANSIT OPERATOR'S RULES

Rules relating specifically to Geographic and Non-geographic Portability:

Rule 1

A Transit Operator will, when a call is received over a Point of Connection from a Donor Operator with the distinguishing 6 digit prefix 5xxxxx inserted before the full national Number, deliver the call to the appropriate Point of Connection of the Recipient Operator with the 6-digit prefix intact.

Rules relating specifically to Mobile Number Portability:

Rule 2

An Operator providing SCCP transit functionality between the Donor and Recipient Operator's networks will support relay of a signalling enquiry message to the Recipient Operator's network, with an SCCP re-routing code in the International E.164 format +44799x abc defghi.

Transit Operators' networks providing call routing between qualifying networks shall support the routing of IRNs either in the E.164 International format +44799x abc defghi or, in the E.164 National format 799x abc defghi.

SECTION 4: COMMON RULES

Rule 1

10,000 Number Blocks (not applicable to Mobile Number Portability)

Where an entire block of 10,000 Subscriber Numbers is transferred from a Donor Operator to a Recipient Operator, the Donor Operator shall notify the Oftel Numbering Scheme Manager to this effect. Such blocks will be transferred using the same technical method – amendments to the routing tables of switches on the Donor (and all other) Operator's systems – as would be used if a new 10,000 number block had been opened up by the Recipient Operator, and by this means all calls to numbers in that block will be automatically routed to their correct location. For the avoidance of doubt, the six digit-prefix commencing with the number 5 will not need to be used to route calls to a number block that has been transferred in this way.

Rule 2

Number Block Ownership (not applicable to Mobile Number Portability)

(a) Having regard to the National Numbering Conventions, where a Donor Operator loses 60% or more of its Subscriber Numbers to any Recipient Operators, and at least 40% of those Subscriber Numbers are handled by one Recipient Operator, the Donor Operator (or that Recipient Operator) may apply to Oftel's Numbering Scheme Manager for re-allocation of that block to that Recipient Operator.

(b) Oftel will retain absolute discretion as to whether to re-allocate such numbers in these circumstances. However, the following factors will be taken into account when reaching a decision:

(i) there should be no adverse effect upon network services or facilities available to remaining Subscribers of the Donor Operator once the re-allocation takes place;

(ii) there shall be proper arrangements in place between all affected Operators in order to co-ordinate consequent changes of primary routing of the re-allocated range of numbers and alteration of transfer arrangements in relation to those numbers;

(iii) having regard to the National Numbering Conventions, if the Donor Operator regains 60% or more of the Subscriber Numbers in a transferred number block, it may apply to Oftel's Numbering Scheme Manager for a further re-allocation of the transferred block back to itself, and the considerations set out under Rule 2 shall apply; and

(iv) where a number block held by a Donor Operator is reallocated in accordance with the rules set out above, the Donor Operator may apply to Oftel's Numbering Scheme Manager for a new number block to be allocated in accordance with the National Numbering Conventions.

Rule 3

CLI Procedures

The originating caller's electric or presentation CLI settings shall be maintained by any operator handling a call to a Ported Number wherever possible, or set to 'number unavailable' if not. The status of presentation restriction shall be maintained according to the relevant codes of practice, subject to other regulations which may supercede these provisions (for example, the Telecommunications Data Protection Directive 97/66/EC and implementing legislation of that Directive).

Rule 4

Call Routing

All calls to Ported Numbers, including calls handled by Transit Operators, shall use routing which minimises call set-up delay, commensurate with the technical capabilities of the systems and having regard to the implementation costs.

Rule 5

Number Allocation and Conservation

In addition to their general obligations as set out in the National Numbering Conventions, all operators share responsibility for ensuring that providing Portability will not jeopardise the proper administration of the Specified Numbering Scheme. The following rules therefore apply:

(a) The Donor Operator will maintain a list of Ported Numbers with a view to ensuring that it makes no attempt to reallocate any such number unless it is given up by the ported Subscriber. The Recipient Operator will inform the Donor Operator when a Subscriber has given up a Ported Number.

(b) In addition to the requirements placed upon them by the National Numbering Conventions to maintain a record of the percentage use of their numbering allocation, Donor Operators must at intervals agreed with Oftel, notify Oftel's Numbering Scheme Manager of the quantity of Ported Numbers in each allocated block in their networks.

Rule 6

Subsequent Portability

With the aim of ensuring that service to the Subscriber using the Number is provided with as little disruption as possible, the Recipient Operators will co-operate with each other in ensuring that any Recipient Operator who wins the Subscriber's business at that Number from another Recipient Operator is informed of the identity of the Donor Operator, and the Donor Operator will co-operate with both Recipient Operators in establishing arrangements for Portability to be provided.

Rule 7

Migration of Number Length

Where a Donor Operator intends to substitute Numbers with more digits than those in the same block as any Ported Number or provide parallel running associated with such numbers, the Donor Operator will give the Recipient Operator sufficient advance notice of the approximate date of the planned substitution or introduction of parallel running to enable the Recipient Operator to make appropriate technical arrangements to ensure a smooth handover. Generally, the Donor Operator should be able to provide three

months' advance notice of the exact date of substitution or introduction of parallel running, subject to any practical difficulties which may affect that date by a reasonable period of time. The Donor Operator will provide to the Recipient Operator the longer Number which corresponds to that Ported Number. The Recipient Operator will ensure that, concurrent with the Donor Operator's substitution of the longer Number block for the shorter Number block, the Ported Number is also substituted.

Rule 8

Specially Tariffed Numbers

- (a) Portability shall not result in any change in the category of Specially Tariffed Service being offered to the calling party. The categories of Specially Tariffed Services are listed in the definition of Specially Tariffed Services and the corresponding number ranges are set out in Annex A. Where any Specially Tariffed Service is divided into sub-categories delineated by number prefixes within the range allocated to a particular type of Specially Tariffed Service, Portability shall not result in any change in the relevant sub-category offered to the calling party.
- (b) Where the calling party is a Subscriber of the Operator (or, as the case may be, a Service Provider) to whom any Number for Specially Tariffed Services has been ported, the tariff paid by calling party should not significantly increase or decrease as a result of the porting of any Subscriber Number which is a Number for Specially Tariffed Services.

Rule 9

Premium Rate Service Numbers

Under no circumstances should service providers be allowed to port premium rate service numbers merely to by-pass the Independent Committee for the Supervision of Standards of Telephone Information Services (ICSTIS) Code(s) of Practice.

Rule 10

Service Providers Timely Porting

Where an Operator has directly sub-allocated any Numbers to any Systemless Service Provider, it must ensure that those Numbers remain capable of being ported in a timely manner between Operators or Service Providers. Mobile operators must ensure that, where they provide mobile services by means of a Service Provider, any Number they sub-allocate to the Service Provider remains capable of being ported.

Where a Portability facility is already in place, the provision of Number Portability to Subscribers should not significantly add to the time it would normally take to provide a service where Number Portability is not involved irrespective of the number of Service Providers involved. Any Service

Provider or Operator receiving a legitimate request to port a Number should pass on or port the Number in a timely manner.

Rule 11

Process Manuals

The agreed text of any process manual relating to the provision of Portability can be found on Oftel's Web site (www.oftel.gov.uk – under the number portability section of numbering information). It is the responsibility of the industry group producing the manual to ensure that any updates of the manual and any related forms are forwarded to Oftel in order to ensure that the latest version is available.

Annex A:

Numbering Ranges Specially Tariffed Services and Personal Numbers

1. Freephone

Numbers beginning:

0500

080

0808 90 Internet free to caller

0321

2. Local Rate

Numbers beginning:

0345

0645

0844 04 Internet services incorporating un-metered access

0844 09 Internet services metered access up to 5ppm

0844 2 to 9 up to 5 p

0845 up to local rate

4. National Rate

Numbers beginning:

03745

0541

0990

0870 up to national rate

0871 04 Internet services incorporating un-metered access

0871 09 Internet services metered access up to 10ppm

0871 2 to 9 up to 10 p

5. Other

0820 Schools internet

6. Premium Rate

Numbers in sub-ranges of the 090 and 091 number ranges allocated for use with any services consistent with the Numbering Conventions (currently Part B9) and, to the extent that parallel

running of any groups of such numbers is permitted by the Numbering Conventions, their corresponding numbers under any parallel running arrangements.

7. Personal Numbers

Numbers in sub-ranges of the 070 number range allocated for use with any services consistent with the Numbering Conventions (currently Part B7). Personal Numbers are not Specially Tariffed Services.

Annex B:

Numbering Ranges – Mobile Services

1. Mobile Services in the 07 numbering ranges (excluding Service Numbers)

Numbers beginning:

077

078

079

2. Mobile Services in other numbering ranges (excluding Service Numbers)

Numbers beginning:

0370

0374

0378

0385

0401

0402

0403

0410

0411

0421

0441

0467

0468

0498

0585

0589

0802

0831

0836

0850

0860

09307

0956

0958

0961

0966

0973

0976
