

MOBILE NUMBER PORTABILITY

OPERATOR STEERING COMMITTEE

PORTING PROCESS MANUAL

ISSUE 1.28

October 2015

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1 INTRODUCTION

1.1 Background

Refer to the OSG Overview document.

1.2 Glossary

Working Day	0900 - 1700 hours, Monday – Friday (excluding local Bank Holidays)
RSP	Recipient Service Provider
DSP	Donor Service Provider
CP	Communications Provider
RNO	Recipient Network Operator
DNO	Donor Network Operator
ONO	Original Network Operator
MNP SLA	MNP Service Level Agreement
CNO	Current Network Operator once porting has occurred (used for clarity when describing subscription termination and repatriation)
Current Subscription	The entity on the Current NO which supports the provision of service against a porting MSISDN
New Subscription	The entity on the Recipient Network which supports the provision of service against a porting MSISDN
Residual Subscription	The entity on the Original Network which supports the re-routing of mobile-terminating traffic for a ported MSISDN
PAC	Porting Authorisation Code
MNP OSG	Mobile Number Portability Operator Steering Group
MSISDN	Mobile phone number
Customer	The user of the MSISDN
Account Holder	The person or entity with contractual responsibility for the customers MSISDN
Migrations	Transfer of a MSISDN between SP's where the Network Operator remains the same.
Closing Cutoff	18:00 on a Working Day
Locking Cutoff	21:00 on the working day before the port date.

1.3 Change Control Procedure

- Proposed amendments to the current Process Manual must be submitted to the Control Administrator. Proposed amendments must include the following mandatory information:

Originator, date originated, proposed change (including textual amendments to the Process Manual), benefits of change, objectives of change, risk if change not implemented,

assessment of scope of work and proposed implementation date. (An optional pro forma Process Manual Amendment Request Form is provided in Appendix D.)

2. Process Amendment Request Forms will only be accepted by the Control Administrator if the originator is a registered CP.
3. Process Amendment Request Forms will be circulated to the Controlled Distribution List for consideration at least 10 working days prior to the next scheduled MNP OSG meeting. If no meeting is scheduled within a month of receipt of the form an ad hoc meeting may be called to discuss the proposed amendment.
4. Attendance at the MNP OSG to discuss proposed process amendments is determined by the rules set out in the Constitution.
5. Amendment requests to the porting process will be debated in the relevant MNP OSG meeting and accepted or rejected by consensus voting in accordance with the rules set out in the Constitution.
6. When amendments are agreed the Process Manual will be reissued as appropriate.
7. If an SP wishes to change their 3 letter SP identifier (as used in the PAC) the SP must submit a formal request to the MNP OSG, using the standard change request form, who will assess the need for the change. The MNP OSG will seek to minimise the number of such changes, in order to avoid additional overheads in maintaining the MNP web system.
8. In addition, the introduction of a new SP shall require the MNP OSG to designate a 3-letter code on their behalf. All new or changed SP identifier codes shall be designed by the MNP OSG to be as distinct as possible from each other, whilst readily identifying the SP name from the 3 alpha characters. Where the MNP OSG have no objection, the designation of a 3-letter code may pass to the MNP System Administrator.
9. It is the responsibility of the Control Administrator to ensure that accepted changes are communicated in a timely manner to the controlled distribution list.

1.4 Porting Process Design Objectives

The MNP OSG has identified a number of design objectives, which shall govern the development of the most appropriate process for porting customers between networks. It should be recognised that it may not be possible to meet all of these objectives; nevertheless, they represent the ideal, which the porting process should seek to achieve.

1. The porting transition shall occur in as seamless a manner as possible and any break in service shall be minimised. Ideally the porting subscriber shall experience no break in service.
2. The process shall, as far as possible, ensure that the risk of fraud or abuse of subscriptions is not increased by the introduction of MNP.
3. The porting processes shall allow flexibility of implementation

4. The number of transactions in the porting process shall be minimised, as far as possible.
5. The porting process shall include sufficient controls to monitor service level performance and to maintain the integrity of data exchanges.
6. The porting process shall address the recovery from an erroneous port so as to minimise the inconvenience to:
 - the erroneously ported customer
 - the Network Operators and Service Providers involved in the port
 - the intended porting customer (if applicable)

1.5 Other References

The following table details those documents associated with MNP that are owned and administered by the MNP OSG. The latest version of these documents may be obtained from the OSG Website: www.mnposg.org.uk.

Ref	Document Name	Document Content	Update Process	Distribution
1	MNP Process Manual	Details of industry wide MNP processes.	Process Amendment Form submitted to and agreed by MNP OSG.	OSG Website
2	Network Operator Contact List	List of Network Operator MNP contact details together with escalation contacts.	Updates in writing to the Chair of the MNP OSG	As required. By email (by post on request)
3	MNP Porting Process – IT Systems Requirements	Inter-Operator IT systems requirements to support the generic MNP business processes for porting an MSISDN between networks.	Update proposal submitted to and agreed by MNP OSG	OSG Website

4	New Entrant Guide	Definition of the process for the establishment of the MNP Service by a Network Operator. <i>(Currently being drafted)</i>	Process Amendment Form submitted to and agreed by MNP OSG	OSG Website
5	MNP Process Sub-Group, Web Support for the porting process, Functional Requirements Specification, Issue 1.6	The functional requirements for the internet based solution to support communication.	Update proposal submitted to and agreed by MNP OSG	As required. By email (by post on request)
6	General Condition 18	Regulatory requirement to provide Number Portability	Published by Ofcom.	http://stakeholders.ofcom.org.uk/binaries/telecoms/ga/general-conditions.pdf
7	OSG Constitution	Defines operation and responsibilities of groups and companies involved in delivering MNP	Updated as necessary by OSG	http://www.mnposg.org.uk/Main_Documents/Constitution.pdf

2 CONSUMER PORTING PROCESS

2.1 Business Rules

This section presents a number of business rules agreed by the MNP OSG to drive the processes for porting MSISDNs between Network Operators (NO) and/or Service Providers (SP).

These business rules are owned by the MNP OSG and may be subject to addition or change by the MNP OSG as a result of either:

- further discussion of process dynamics within the MNP OSG
- commercial issues identified by the MNP OSG
- changes to applicable regulations and laws

Any changes to these business rules shall be subject to the change control procedure as presented in Section 1.3.

Information on MNP SLA timescales is presented in Appendix A including details of the porting timescale broken down against specific process elements and events.

The MNP Consumer Business Rules are:

- 1 The same MNP porting process shall be employed for:
 - Migration of MSISDNs between SPs but retaining the same NO
 - Porting of MSISDNs between SPs where the NO is also changing
- 2 The MNP process may or may not be used for the transfer of MSISDNs between NOs where the SP remains the same. SPs are free to administer such transfers according to their own internal processes.
- 3 The MNP porting process shall employ the MNP web system subject to Operators agreement (see Document Reference 11) for the inter-SP communication of porting requests.
- 4 The porting process cannot be initiated without prior authorisation by the DSP to port-out. Authorisation shall always be acquired by an account holder request to the DSP. The DSP is entitled to validate the status of the customer before issuing an authorisation to port-out any MSISDN.
- 5 The issuing of a Port Authorisation Code (PAC) by the DSP is their agreement that the customer is entitled to request and have their MSISDN(s) ported to another SP and/or Network should the DSP receive a port-out request within the PAC validity period. The DSP shall register this unique port authorisation code against the MSISDN(s) that have been authorised for porting.

- 6 Following a request to port, the DSP is obliged to provide the customer with a valid PAC as set out in this manual. Only under the following circumstances is a DSP entitled to refuse to provide a customer with a valid PAC:
1. The MSISDN is not held by a customer of the DSP
 2. The MSISDN has been terminated
 3. The account holder is deceased
 4. The DSP has already issued a PAC that is still valid.
 5. The customer fails to provide adequate identification that he or she is the legitimate account holder.

Matters relating to unpaid debt on the part of the customer may **not** be used as grounds to refuse the issuing of a PAC.

NB Terminated: Where the customer has ceased use of the MSISDN and ended their contract prior to the port request. Or the Service Provider has removed all use previously available to the customer and discontinued service.

- 7 Prepay customers must be advised by the RSP that any existing credit they may have is subject to 'use or lose'.
- 8 The PAC validity period extends up to 18.00 on the 30th calendar day from issue, including bank holidays. A port-out request submitted to the MNP web system by this time must be actioned by the DSP.
- 9 During the PAC validity period, the DSP may take whatever steps are necessary (including barring continued use of service) to manage bad debt prior to the MSISDN being ported. Such bad debt shall not allow the DSP to refuse to issue a PAC or fail to meet their obligations set out in this manual.
- 10 The default port date will be taken to be the following Working Day after the submission of the port-out request by the RSP (i.e. if the request is submitted to the MNP web system prior to the Closing Cutoff). The customer may request an alternative port date that is later than the default date but no later than the Working Day following the PAC expiry date. However, see also business rule 12 below.
- 11 Porting shall only take place on a mutual Working Day. If the derived port date is a Bank Holiday, the port will take place on the next Working Day.
- 12 Working Days are defined as Monday – Friday, 09.00 to 17.00, excluding local Bank Holidays
- 13 The PAC shall consist of 3 letters followed by six digits. The 3 letters will identify and be specific to the DSP, and the digits will serve to uniquely identify the individual port-out request.

- 14** The 3-letter identifier codes for all SPs will be maintained by the MNP OSG. Any request to add a new SP code, or to change or delete an existing SP code (e.g. arising from a change in the SP name or merger of SPs) must be made to the MNP OSG using the change control procedures described in Section 1.3.
- 15** An individual port-out request is actually identified by the **pairing** of the PAC and MSISDN. Once an issued PAC has exceeded its validity period and has been “cleansed” from the MNP web system, the same numerical digits may be re-used to generate a subsequent PAC.
- 16** A single PAC shall be issued by the DSP for up to 25 MSISDNs sharing the same account within a single request for port authorisation. The DSP is also free to assign the same PAC to all MSISDNs belonging to the same customer within a single request, in order to minimise the number of PACs to be issued. However, a maximum of 25 MSISDNs can be allocated a single PAC. (Each primary and secondary MSISDN is counted individually.) The Bulk Process business rules shall apply if more than 25 MSISDNs are allocated the same PAC. The DSP reserves the right to apply the Bulk Process business rules when multiple requests are received for the same customer within 2 Working Days.
- 17** The DSP must, as a minimum, allow PAC requests to be made over the phone. Where a customer asks for a PAC over the phone, the DSP must issue it either immediately over the phone or by SMS within 2 hours of the request being made, unless mutually agreed otherwise. The 30 calendar day PAC validity period begins once the PAC is issued.
- 18** Once a valid port out request has been successfully submitted to the MNP web system there is an obligation on both the DSP and RSP to action the port.
- 19** If secondary MSISDNs are not ported at the same time as the primary MSISDN, services on these MSISDNs may be lost. Each SP is free to apply its own business rules to continue or terminate service on a secondary MSISDN after its primary is terminated or ported-out.
- 20** The customer’s request to the DSP for an authorisation to port does not in itself represent a request to terminate service with the DSP. The DSP should **not**, therefore, disconnect the MSISDN upon request for (or issue of) a PAC unless the customer specifically gives notice to terminate the contract.
- 21** The customer’s request to the DSP for an authorisation to port should normally be taken to revoke any previous notice to terminate service unless the customer requests the previous notice to stand and the DSP can accommodate this request. On issuing a PAC, the DSP must inform the customer:
- if any previous termination has been revoked, and any current or pending termination actions are being cancelled;
 - if the account will continue and any notice to terminate will be lost if the PAC is not used within its 30 day validity;
 - if the account will terminate before the 30 day validity of the PAC expires as a result of the customer requesting the previous notice to remain in effect, and on which date it will terminate;
 - which date will be used for the purposes of calculating any outstanding subscription charges under the contract.

- 22** The customer may request the DSP to rescind the porting authorisation at any time prior to the submission of a port-out request through an RSP. In this case the DSP shall be entitled to cancel any active PAC on the MNP web system, which will prevent any subsequent port-out request being submitted by another SP.
- 23** The customer also has the right to cancel or amend the port request at any time up to the point where the DSP has received the port-out request from the RSP. This is taken to be the time at which the DSP “reads” the porting data from the port-out request submitted to the MNP web system. However, only upward revisions of the port date will be permitted, subject to the constraints described in rule 13.
- 24** If the DSP receives a port-out request, the customer’s notice period (i.e. the date at which notice to discontinue service is taken for the purposes of calculating any outstanding subscription charges under the contract) shall be consistent with the information given under paragraph 22 above.
- 25** A valid port-out request from the RSP shall always represent a notice to terminate the current subscription on the DSP for the porting MSISDN(s) on the port date.
- 26** If the PAC validity period is passed without the submission of a port-out request the DSP must not terminate the current subscription, unless specifically requested to do so by the customer.
- 27** The DSP shall ensure that port-out requests submitted to the MNP web system are processed appropriately so as to port-out the requested MSISDNs to the specified RNO(s) on the port date according to the porting process timescale defined in Appendix A, and the port day timeline defined in Appendix C.
- 28** The RSP shall ensure that a subscription is active on the specified RNO on the port date for each porting-in MSISDN according to port date timeline defined in Appendix C.
- 29** The RSP shall inform the porting-in customer of the MNP rules which apply to any 14 day (or other) trial period.
- 30** If the porting-in customer elects to discontinue service with the RSP within any 14 day (or similar) trial period offered by the RSP, and wishes to port-out the MSISDN(s) to another NO and/or SP, the customer must request a PAC and submit the port-out request (via another SP) before the end of the trial period.
- 31** The following lists of responsibilities fall upon each party listed over the course of a port:

Customer/Account Holder

- To provide the necessary identification to the DSP in order to obtain a PAC.
- To be a valid customer of the DSP.
- To have settled any subsidy on any MSISDN equipment that they have received.
- To ensure they are in possession of a valid port authorisation code (PAC) when requesting a port-in to the RSP.
- To ensure that they have a handset that will work on the RNO.

- To ensure that the RSP is aware of all MSISDN's which required to be ported.

DSP

- To provide the PAC to the customer within 2 hours of the request being made, if the request was made over the phone.
- To confirm the porting authorisation on the MNP web system
- To process port-out requests submitted by the RSP via the MNP web system.
- To perform the necessary port-out system actions, and terminate the current subscription for the porting MSISDN on the DNO in accordance with the porting SLAs defined in Appendices A and C
- To restore an active subscription for a ported MSISDN as part of the recovery process.

The DSP shall ensure that all PAC/MISDN pairings in the closed state are locked by 21:00 on the day they are closed.

RSP

- To provide the customer with the mandatory information indicated in the process descriptions
- To submit the port-out request to the DSP by means of the MNP web system
- To advise the customer of any reason why the port-request is invalid.
- To complete a port in for all port out requests successfully submitted to the MNP web system.
- To set up a new subscription for the porting MSISDN to be active on the RNO on the port date, and provide the customer with the necessary SIM and, if required, handset
- To make the customer aware of any conditions that apply to porting the MSISDN again within an initial trial period, should such a period exist e.g. 14 day money back guarantee period.

DNO

- To request the modification of the residual subscription on the ONO.
- To deactivate, or make provision for the DSP to deactivate, the subscription of the porting out customer on the port date.

ONO

- To validate the DNO re-routing request and refuse any requests for MSISDNs not currently supported by the DNO
- To modify the residual subscription for the porting MSISDN to re-route incoming calls towards the RNO.
- Following a successful re-routing, to acknowledge the residual subscription status to both the DNO and RNO.

RNO

- To activate, or make provision for the RSP to activate, the subscription of the porting in customer on the port date

For the avoidance of doubt, failure to fulfil the responsibilities set out above does not effect a customer's right to port their MSISDN.

2.2 Consumer Porting Process Description

Figure 1, below, illustrates the scope of the porting process. The interactions described cover all porting scenarios (i.e. initial and subsequent ports).

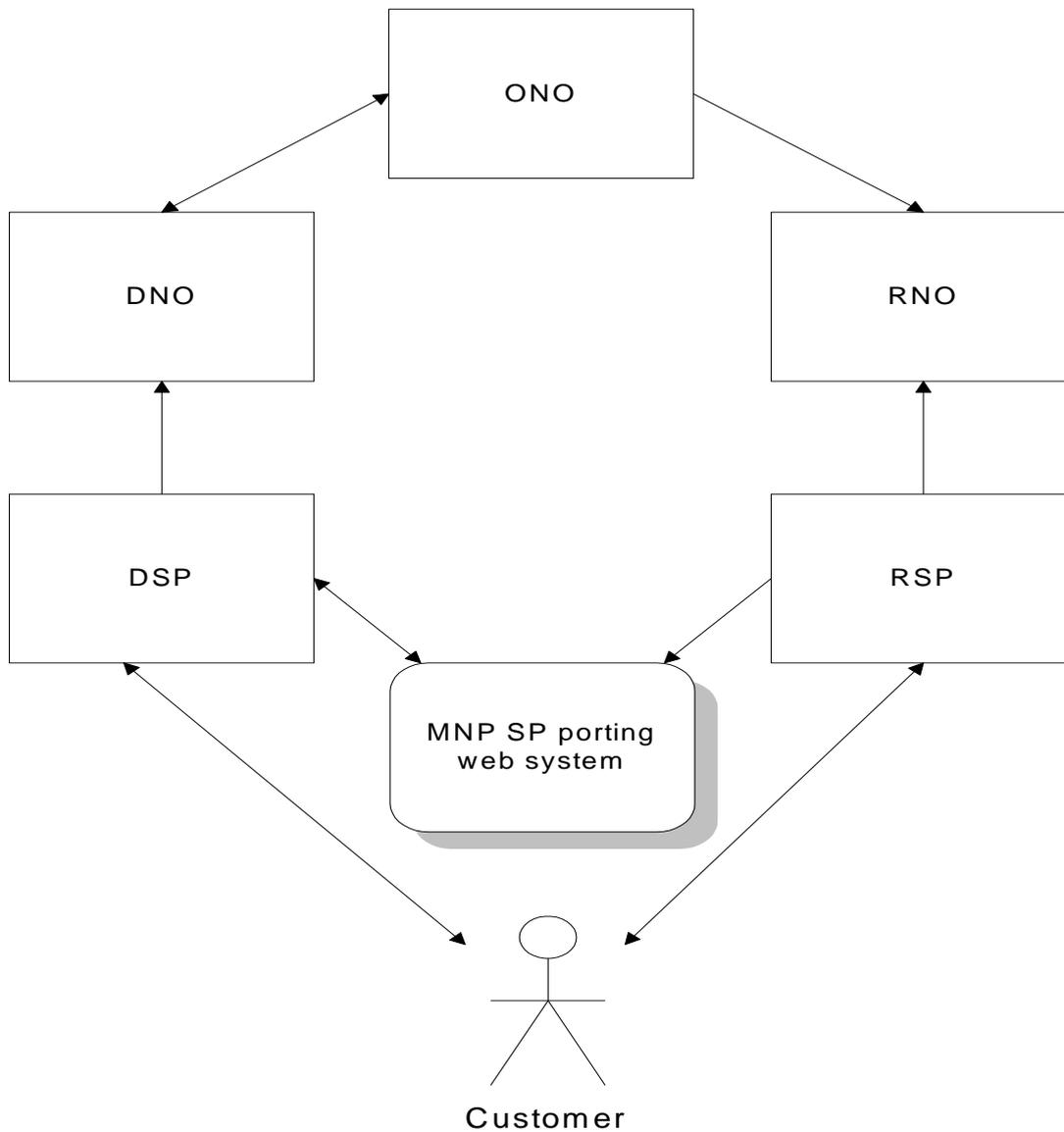


Figure 1 : Consumer Porting Process Flow

Porting from the Donor Network Operator (DNO) to the Recipient Network Operator (RNO) involves the following sequence of transactions. Where the port is an initial port the DNO and Original Network Operator (ONO) are the same, and all processes attributed to the ONO shall be performed by the DNO.

Figure 2, overleaf, presents a more detailed step-by-step illustration of the process flow between the Customer, DSP, and RSP.

The consumer porting process contains the following steps:

1 Customer contacts DSP to obtain authorisation to port-out

The customer initially contacts the Donor Service Provider (DSP) to request authorisation to port-out. The customer may be either the authorised user or account holder of the porting MSISDN(s).

The DSP validates the customer identity. Having validated the porting authorisation request, the DSP shall either:

- issue a porting authorisation to the customer within 2 hours of the request being made over the phone and register the authorisation on the MNP web system (see 2 below), or
- offer one of the reasons set out in paragraph 6 of section 2.1 of this document as to why the issuing of a PAC has been refused.

Prepay customers can only be refused a PAC if:

- the MSISDN is not held by the customer requesting the PAC
- the MSISDN is not held by a customer of the DSP
- the DSP has already issued a PAC that is still valid.
- They do not provide adequate identification that they are the legitimate holder of the MSISDN.

The DSP must inform the customer of any subscription charges payable to the minimum contract term to be settled, before authorisation to port-out can be granted

The DSP cannot refuse to issue a port authorisation code if:

- The customer has not paid their final airtime bill, notice period (not served), disconnection charges, or any porting charge before the port date. These charges should be included in the final airtime bill, which will be settled according to the terms of the contract.
- The customer is in bad debt but is still connected to the airtime (i.e. the MSISDN is in receipt of service) at the time the request is received.

If the customer has made a request for a porting authorisation by phone, and it is refused, the DSP may give reason(s) why it has been refused during the same phone call. In any event, whether the customer request was made by phone or in writing, a written confirmation of the reason(s) as set out in paragraph 6 of section 2.1 of this document as to why the issuing of a PAC has been refused must be despatched to the customer by the DSP within 2 working days of receipt of the request.

2 DSP authorises port-out

a) *DSP issues porting authorisation to customer*

- The DSP confirms that should a port-out request be received from another SP for the customer's specified MSISDN(s) the port-out request shall be honoured and expedited according to the agreed industry-wide SLA.
- The DSP issues the customer a unique port authorisation code (PAC) which applies to the specified MSISDN(s) to be ported.
- The same PAC may be associated with up to a maximum of 25 MSISDNs for the same customer. The full authentication of an individual porting request is actually the combination of the MSISDN and its associated PAC (hereafter referred to as the MSISDN/PAC pairing).
- The customer may make a PAC request in any form available from the SP i.e. Phone, letter, E-mail. Where a request for a porting authorisation is made by phone, the DSP may issue the PAC to the customer during the same phone call and in any event no later than 2 hours from the point in time the initial request is made by the customer.
- However, the DSP is entitled to insist on a written porting authorisation request with the customer's signature before issuing a PAC, if it is their current business policy to require the customer's signature for confirmation of a termination request. In this case, the DSP shall explain to the customer how to submit the written authorisation request, and shall proceed according the step below.

b) *DSP provides mandatory information to customer*

Confirmation of the authorisation to port-out shall include the following information:

- The port authorisation code (PAC)
- Confirmation of the 30 day validity period for the PAC (start and expiry dates)
- Confirmation of the MSISDN(s) to which the PAC applies (maximum 25)
- Confirmation that service will be discontinued on the port date for each MSISDN that receives a subsequent valid port-out request within the PAC validity period
- Clarification of whether or not it is the SP's policy that service (and subscription charges) will continue for any secondary MSISDNs that remain on the DSP after their primary MSISDN is ported-out

- Notification that the issue of the PAC is taken to revoke any previous termination notice
- Confirmation that service (and any associated subscription charges) will continue if no port-out request is received, even if the customer has previously given notice to terminate
- For the purpose of determining the account holders' obligations with regard to giving notice, confirmation that the contract termination notice period is taken to commence on the date of issue of the PAC, or the date of any previous notice to terminate, whichever is the earlier.
- The DSP shall issue a MNP guide to the customer together with the porting authorisation.

It is at the discretion of the DSP as to how this information is communicated to the customer.

c) *DSP registers PAC & MSISDN on the MNP web system*

The DSP shall ensure that an entry is created on the MNP web system for each porting MSISDN. Each entry shall include the following data.

- The MSISDN, its primary/secondary status, its DNO and its associated PAC
- The primary MSISDN (for secondary MSISDNs only)
- The PAC validity period

3 Customer requests port-in to RSP

The customer selects a new Service Provider (RSP) and Network Operator (RNO) and requests to port-in their MSISDN(s) from their current Service Provider (DSP).

- The RSP cannot proceed with the port-in request if the customer does not have a valid PAC. In this case the customer should be referred to the DSP to request authorisation to port-out.
- The RSP is entitled to decline the port-in request.

4 RSP submits port-out request to DSP

If the RSP and customer agree to continue with the port-in, the RSP shall submit the port-out request to the DSP for each porting MSISDN by means of the MNP web system.

- 1 The RSP shall confirm the following mandatory information to the porting customer:

- The customer has entered into a contractual agreement with the RSP to support service against the ported MSISDN(s) on the recipient network, unless the customer has opted for a Prepay proposition.
 - the porting request shall always represent a notice to terminate the current subscription for the porting MSISDN on the DSP on the port date.
 - the port date is the next Working Day from submission of the port-out request to the DSP (or later if agreed with the customer)
 - if the porting MSISDN is on a prepay service with the DSP the customer must use any outstanding credits or risk losing them.
- 2 The customer shall provide the RSP with the following porting details:
- porting MSISDN(s)
 - PAC for each MSISDN
 - RNO for each MSISDN
- 3 The RSP shall enter the PAC/MSISDN pairing into the MNP web system.
- 4 The web system shall either:
- Accept the PAC/MSISDN pairing and prompt the RSP to enter the porting details (RNO, RSP, and port date) for the MSISDN
 - Reject the PAC/MSISDN pairing as invalid and return an error message to confirm the reason (see Section 2.3, below).
- 5 If the porting details have been successfully entered into the web system against a valid PAC/MSISDN pairing, the RSP can confirm to the customer that the port will take place on the port date. (Note: At this point the Dealer/RSP is free to issue the customer a new handset or SIM, since the DSP is obliged to action the port-out request.)
- 6 The RSP can cancel or amend the porting details on the MNP web system, on request by the customer, at any point up to the time the porting details are processed by the DSP. Once the DSP has “read” the porting details and locked the entry, RSP access to the entry on the web system is “locked out”. Any amendment will need to be actioned via the exception conditions described in Section 6.1.4 **Unlocking PAC codes**.

5 DSP processes port-out requests

See also MNP web system functional specification Ref 11, Section 1.5 for operational details.

a) *DSP polls MNP web system for port-out requests*

- Daily the DSP “polls” the MNP web system to identify MSISDNs, which have received port-out requests. This is at the discretion of the DSP; however the DSP shall read and lock the PACs. The locking should generally take place between 18:00 hours and 2100 hours on the Working Day before the port date allowing cancellations by the RSP to take place without input from the DSP. If the DSP elects to lock before this time they must ensure they have support staff available up to 17:00 on the Working Day prior to the port in order to unlock entries should it be requested following a cancellation request from the customer.
- The DSP shall be able to choose from a number of options in identifying MSISDNs to be ported, as follows:
 - Identify MSISDNs to be ported today – this allows the port details for each MSISDN to be read from the web page and (manually) input into the internal porting systems for immediate action.
 - Identify MSISDNs to be ported X days from today – this is similar to the option above, but allows X days to manually process the data onto the DSP’s internal systems
 - Identify MSISDNs for all newly received port-out requests – this allows a DSP to immediately process all new requests, and to exploit any “diarisation” capability on their internal systems to action the port-out on the specified port date

b) *DSP reads port data from MNP web system*

- Each DSP shall be free to process port-out requests submitted via the MNP web system in a manner which is most compatible with their present internal porting systems and operational processes.
- Each SP shall be able to choose from a number of options in transferring the porting details from the MNP web system onto their internal porting systems, as follows:
 - Read port details from the polled entries on the web page, and manually enter the necessary data onto the internal porting systems
 - Print a port details report from the web page for the polled entries, and manually enter the necessary data onto the internal porting systems
 - Retrieve the port details for the polled entries on a common file format (e.g. ASCII) for direct data transfer into the internal porting systems

6 Port-in MSISDN(s) on port date

- On or before the port date¹ the RSP shall set up a new subscription for the porting MSISDN on the RNO to be active on the agreed porting date
- The RSP should ensure that the porting customer is in possession of an appropriate SIM and handset before the porting date.

7 Port-out MSISDN(s) on port date

a) *DSP initiates port-out actions*

- On or before the port date² the DSP shall initiate the port-out of the MSISDN from the DNO
- The port-out processes shall ensure that, until the agreed porting date:
 - the current subscription remains active on the DNO, and
 - the residual subscription remains unchanged on the ONO
- The DSP shall pass the following data to the DNO:
 - porting MSISDN
 - RNO
 - porting date

b) *DNO proceeds with port-out*

- Upon receipt of the port-out data the DNO shall:
 - validate the MSISDN to confirm that it is supported by an active current subscription.
 - notify the DSP of any invalid porting MSISDNs
- On the porting date, for valid porting MSISDNs, the DNO shall request the ONO to re-route incoming traffic to the porting MSISDN towards the RNO.
- The DNO shall provide the ONO with the following porting data:
 - porting MSISDN
 - RNO
 - porting date (for audit purposes only)

c) *ONO modifies residual subscription*

¹ The actual time at which the RSP performs this action will depend upon the specific functionality of the RSP and/or RNO systems. The RSP is free to initiate the port-in before the port date, if these systems have the capability to “diarise” the port-in action in advance so as to take place on the port date as specified in the porting event timeline in Appendix A

² The actual time at which the DSP performs this action will depend upon the specific functionality of the DSP and/or DNO systems. The DSP is free to initiate the port-out action before the port date, if these systems have the capability to “diarise” the port-out action in advance, so as to take place on the port date. . As specified in the porting event timeline in Appendix A.

- The ONO shall validate the “ownership” of the porting MSISDN, and shall reject any re-route request submitted by a NO which is not the DNO for the porting MSISDN
- For valid re-route requests, the ONO shall modify the residual subscription to re-route traffic to the RNO as requested, and shall confirm the modification of the residual subscription to the DNO and the RNO

d) *DNO completes port-across actions*

- Upon confirmation that the residual subscription has been modified, the DNO shall terminate the current subscription for the porting MSISDN before the end of the porting day (i.e. no later than 2400 hours on the port date).
- If the re-route request is rejected, the DNO/DSP shall investigate and rectify the erroneous data, and re-submit the re-direction request.

Appendix C illustrates the timeline for the actual porting event (i.e. the transfer of the porting MSISDN(s) across networks) and clarifies the sequence of NO actions and the nature of the porting “window”.

2.3 Reasons process may not complete

The process as outlined above will not reach completion if one of the steps along the way is unable to be completed. The porting process will only be allowed to complete if the necessary information is supplied and the business rules are not violated

The PAC/MSISDN pairing may be rejected as invalid by the MNP web system for one of the following reasons:

- **Invalid MSISDN/PAC pairing** - the access attempt has used a MSISDN/PAC pairing which does not match any current entry on the MNP web system. This indicates that either:
 - the PAC is incorrect, or
 - the PAC is not correctly matched with the MSISDN

In this case the customer should check that their PAC is valid, and is matched with the correct MSISDN(s).

- **Entry closed** - the access attempt has used a MSISDN/PAC pairing which matches an entry on the web site, but the entry status = “closed”. This indicates that a valid port-out request for the MSISDN has already been submitted by another SP. The customer cannot attempt to port-in a MSISDN to more than one SP at the same time.
- **Expired PAC** - the access attempt has used a MSISDN/PAC pairing which matches a current entry on the web site, but the attempt is past the expiry date of

the PAC. In this case the customer will need to re-apply to the DSP for another PAC.

- **Entry read** - the access attempt has used a MSISDN/PAC pairing which matches an entry on the web site, but the entry status = “read”. This indicates that the DSP has already read the port-out request from the web system in order to action the request, and RSP access to the entry has been locked-out. In this case the RSP cannot amend the port request submitted to the DSP, and the port will take place as specified. In extreme cases, the RSP may contact the DSP resolution hotline to amend the port details in advance of the port date See also Section 6, Recovery Processes.
- **Entry cancelled** - the access attempt has used a MSISDN/PAC pairing which matches an entry on the web site, but the entry status = “cancelled”. This indicates that the customer has previously requested the DSP to cancel the PAC for the porting MSISDN.

3 BULK PORTING PROCESS

3.1 Business Rules

This section presents number of business rules agreed by the MNP OSG to drive the processes for porting MSISDNs in bulk between Network Operators and/or Service Providers

The separation of processes into Bulk and Consumer is in recognition of the additional work required by the DSP to process volume requests.

These business rules are owned by the MNP OSG and may be subject to addition or change by the MNP OSG as a result of either:

- further discussion of process dynamics within the MNP OSG
- commercial issues identified by the MNP OSG
- changes to applicable regulations or laws

Any changes to these business rules shall be subject to the change control procedure as presented in Section 1.3.

The MNP Bulk Port Business Rules are:

- 1 The same MNP porting process shall be employed for:
 - Migration of MSISDNs between SPs but retaining the same NO
 - Porting of MSISDNs between SPs where the NO is also changing

- 2 The MNP process may or may not be used for the transfer of MSISDNs between NOs where the SP remains the same. SPs are free to administer such transfers according to their own internal processes.

- 3 The MNP porting process shall employ the MNP web system (see Document Reference 11) for the inter-SP communication of porting requests

- 4 The porting process cannot be initiated without authorisation from the DSP. Such authorisation may only be withheld for reasons outlined in paragraph 6 of section 2.1 of this document.

- 5 The issuing of a Port Authorisation Code (PAC) by the DSP is their agreement that the customer is entitled to request and have their MSISDN(s) ported to another SP and/or Network should the DSP receive a port-out request within the PAC validity period. The DSP shall register this unique port authorisation code against the MSISDN(s) that have been authorised for porting.

- 6 Prepay customers must be advised by the RSP that any existing credit they may have is subject to 'use or lose'.
- 7 The PAC validity period extends up to 18.00 on the 30th calendar day from issue, including bank holidays. A port-out request submitted to the MNP web system by this time must be actioned by the DSP.
- 8 During the PAC validity period, the DSP may take whatever steps are necessary (including barring continued use of service) to manage bad debt prior to the MSISDN being ported. Such bad debt shall not allow the DSP to refuse to issue a PAC or fail to meet their obligations set out in this manual
- 9 The port date for each porting MSISDN shall be specified within a proposed porting schedule drawn up by the customer and the RSP. This port date shall be entered into the MNP web system by the RSP as part of the standard porting details, which constitute the submission of the port-out request for each MSISDN.
- 10 The DSP is entitled to negotiate with the RSP and customer to agree an alternative porting schedule, however where it is requested by both the RSP and the customer, the DSP must be able to support a port date of the next Working Day. The RSP may then revise the necessary port dates on the MNP web system, as appropriate.

Each MSISDN may be ported-out from the DSP from Working Day after the entry is closed until the Working Day after the last day of the PAC validity period.

- 11 Porting shall only take place on a working day. If the derived port date is a Bank Holiday, the port will take place on the next working day.
- 12 Working days are defined as Monday – Friday, 09.00 to 17.00, excluding local Bank Holidays.
- 13 The PAC shall consist of 3 letters followed by six digits. The 3 letters will identify and be specific to the DSP, and the digits will serve to uniquely identify the individual port-out request.
- 14 The 3-letter identifier codes for all SPs will be maintained by the MNP OSG. Any request to add a new SP code, or to change or delete an existing SP code (e.g. arising from a change in the SP name or merger of SPs) must be made to the MNP OSG using the change control procedures described in Section 1.1
- 15 An individual port-out request is actually identified by the pairing of the PAC and MSISDN. Once an issued PAC has exceeded its validity period and has been "cleansed" from the MNP web system, the same numerical digits may be re-used to generate a subsequent PAC.
- 16 A single PAC shall be issued by the DSP for all MSISDNs sharing the same account within a single or multiple request for port authorisation. However, the DSP is also free to

assign the same PAC to all MSISDNs belonging to the same customer within a single request. There is no limit to the number of MSISDNs that can be allocated a single PAC. However, for individual multiple requests received within a period of 48 hours the DSP reserves the right to initiate the Bulk Port process.

- 17** If the customer contacts the DSP by phone the PAC may be issued immediately. If a PAC is issued the 30 calendar day PAC validity period starts. Written confirmation of the port authorisation and PAC (or reason for its non-issue) may then be despatched.
- 18** If the customer contacts the DSP by fax, e-mail or letter, the DSP may respond with the written port authorisation and PAC, or reason for non-issue as set out in paragraph 6 of section 2.1 of this document, within 10 working days of receipt of the customer's request. If a PAC is issued, the 30 days PAC validity period will start from the time the PAC is generated from the WEB.
- 19** A written response to the porting authorisation request must clearly indicate the PAC (or PACs), the PAC validity period, and the MSISDN(s) to which the PAC applies. In the event that porting authorisation is refused for any MSISDNs, these must be clearly distinguished, together with the reason(s) as set out in paragraph 6 of section 2.1 of this document, for the refusal of each MSISDN.
- 20** The customer can apply to an RSP to port-in their MSISDN(s) without the written port authorisation, providing they can supply the RSP with a valid PAC for each MSISDN to be ported.
- 21** Once a valid port out request has been successfully submitted to the MNP web system there is an obligation on both the DSP and RSP to action the port.
- 22** If secondary MSISDNs are not ported at the same time as the primary MSISDN, services on these MSISDNs may be lost. Each SP is free to apply its own business rules to continue or terminate service on a secondary MSISDN after its primary is terminated or ported-out.
- 23** The customer's request to the DSP for an authorisation to port does not in itself represent a request to terminate service with the DSP. The DSP should not, therefore, disconnect the MSISDN upon request for (or issue of) a PAC.
- 24** The customer's request to the DSP for an authorisation to port should normally be taken to revoke any previous notice to terminate service unless the customer requests the previous notice to stand and the DSP can accommodate this request. On issuing a PAC, the DSP must inform the customer:
 - if any previous termination has been revoked, and any current or pending termination actions are being cancelled;
 - if the account will continue and any notice to terminate will be lost if the PAC is not used within its 30 day validity;
 - if the account will terminate before the 30 day validity of the PAC expires as a result of the customer requesting the previous notice to remain in effect, and on which date it will terminate;
 - which date will be used for the purposes of calculating any outstanding subscription charges under the contract.

- 25** The customer may request the DSP to rescind the porting authorisation at any time prior to the submission of a port-out request through an RSP. In this case the DSP shall be entitled to cancel any active PAC on the MNP web system, which will prevent any subsequent port-out request being submitted by another SP.
- 26** The customer also has the right to cancel or amend the port request at any time up to the point where the DSP has agreed the porting schedule with the RSP. This is taken to be the time at which the DSP “reads” the porting data from the port-out request submitted to the MNP web system. However, only upward revisions of the port date will be permitted, subject to the constraints described in rule **13**.
- 27** If the DSP receives a port-out request, the customer’s notice period (i.e. the date at which notice to discontinue service is taken for the purposes of calculating any outstanding subscription charges under the contract) shall be consistent with the information given under paragraph 26 above.
- 28** A valid port-out request from the RSP shall always represent a notice to terminate the current subscription on the DSP for the porting MSISDN(s) on the port date.
- 29** If the PAC validity period is passed without the submission of a port-out request the DSP must not terminate the current subscription, unless specifically requested to do so by the customer.
- 30** The DSP shall ensure that port-out requests submitted to the MNP web system are processed appropriately so as to port-out the requested MSISDNs to the specified RNO(s) on the port date according to the porting process timescale defined in Appendix B, and the port date timeline defined in Appendix C.
- 31** The RSP shall ensure that a subscription is active on the specified RNO on the port date for each porting-in MSISDN according to port date timeline defined in Appendix C.
- 32** The RSP shall inform the porting-in customer of the MNP rules, which apply to any 14 day (or other) trial period.
- 33** If the porting-in customer elects to discontinue service with the RSP within any 14 day (or similar) trial period offered by the RSP, and wishes to port-out the MSISDN(s) to another NO and/or SP, the customer must request a PAC and submit the port-out request (via another SP) before the end of the trial period.
- 34** The following Responsibilities fall upon each party listed over the course of the port.

Customer/Account Holder

- To provide the necessary identification to the DSP in order to obtain a PAC.
- To be a valid customer of the DSP.
- To have settled any subsidy on any MSISDN equipment that they have received.

- To ensure they are in possession of a valid port authorisation code (PAC) when requesting a port-in to the RSP.
- To ensure that they have a handset that will work on the RNO
- To ensure that the RSP is aware of all MSISDN's which required to be ported.
- To agree a porting schedule with the RSP for the porting MSISDNs

DSP

- To issue a written port authorisation and PAC to the customer, or to communicate the reason why not as set out in paragraph 6 of section 2.1 of this document.
- To issue a MNP guide to the customer
- To confirm the porting authorisation on the MNP web system
- To process port-out requests submitted by the RSP via the MNP web system.
- To agree a porting schedule with the RSP and customer, and provide confirmation of the agreed schedule to the RSP
- To perform the necessary port-out system actions, and terminate the current subscription for the porting MSISDN on the DNO in accordance with the porting SLAs defined in Appendices B and C
- To restore an active subscription for a ported MSISDN as part of the recovery process.

The DSP shall ensure that all PAC/MISDN pairings in the closed state are locked by 21:00 on the Working Day prior to the Port Date.

RSP

- To provide the customer with the mandatory information indicated in the process descriptions
- To submit the port-out request to the DSP by means of the MNP web system
- To complete a port in for all port out requests successfully submitted to the MNP web system.
- To advise the customer of any reason why the port-request is invalid
- To set up a new subscription for the porting MSISDN to be active on the RNO on the port date, and provide the customer with the necessary SIM and, if required, handset
- To make the customer aware of any conditions that apply to porting the MSISDN again within an initial trial period, should such a period exist (e.g. 14 day money back guarantee period)
- To draw up a proposed porting schedule for the porting MSISDNs with the customer
- To liaise with the customer in negotiating with the DSP to agree a porting schedule
- To revise the port dates on the MNP web system as appropriate, following any revision of the porting schedule agreed with the customer and the DSP.

DNO

- To request the modification of the residual subscription on the ONO.
- To deactivate, or make provision for the DSP to deactivate, the subscription of the porting out customer on the port date.

ONO

- To validate the DNO re-routing request and refuse any requests for MSISDNs not currently supported by the DNO
- To modify the residual subscription for the porting MSISDN to re-route incoming calls towards the RNO.

- Following a successful re-routing, to acknowledge the residual subscription status to both the DNO and RNO.

RNO

- To activate, or make provision for the RSP to activate, the subscription of the porting in customer on the port date

For the avoidance of doubt, failure to fulfil the responsibilities set out above does not effect a customer's right to port their MSISDN.

3.2 Bulk Porting Process Description

Figure 3 below, illustrates the scope of the porting process interactions described here to cover all porting scenarios (i.e. initial and subsequent ports).

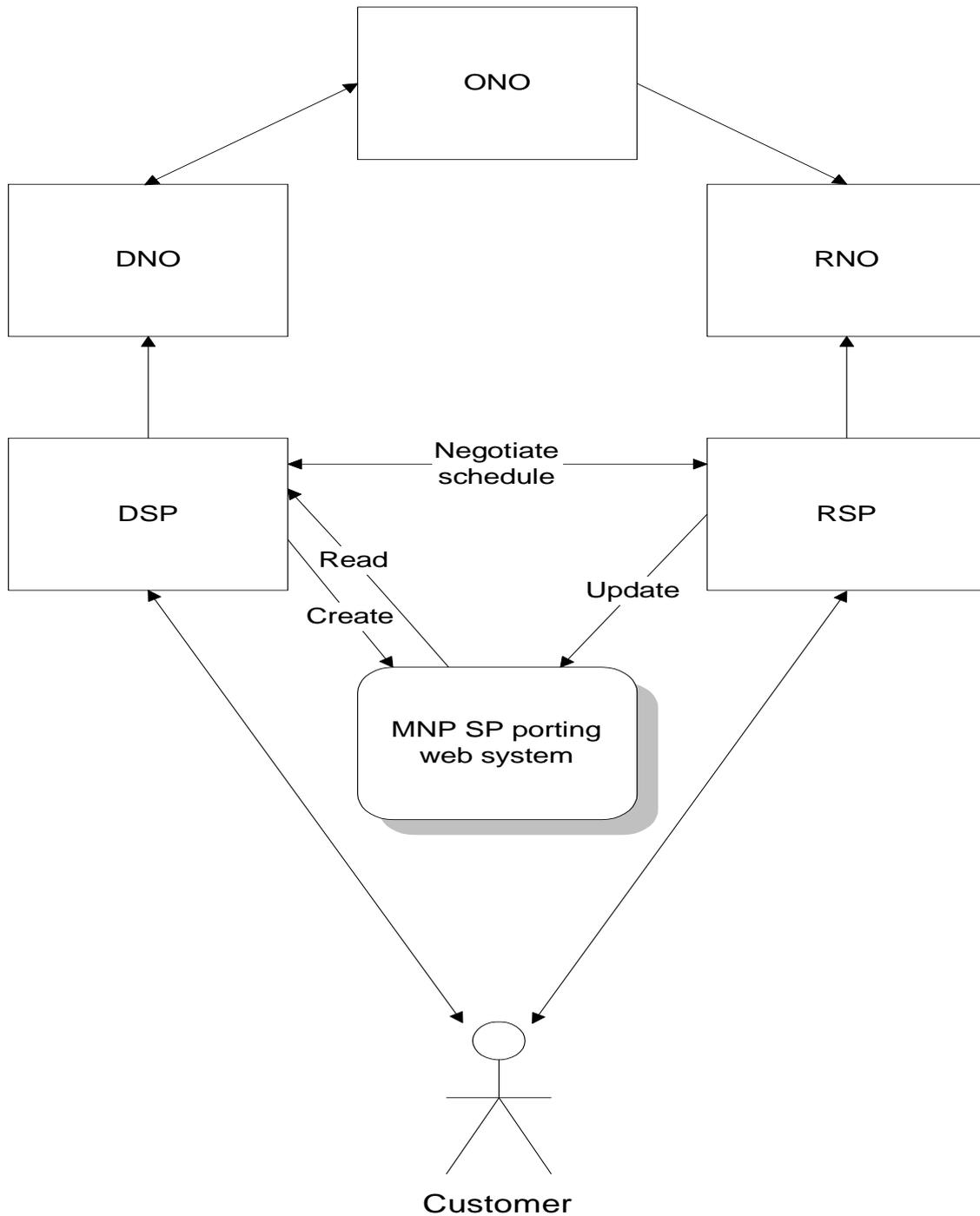


Figure 3 - High level process interaction

Figure 4 overleaf, presents the process flow for Bulk Ports.

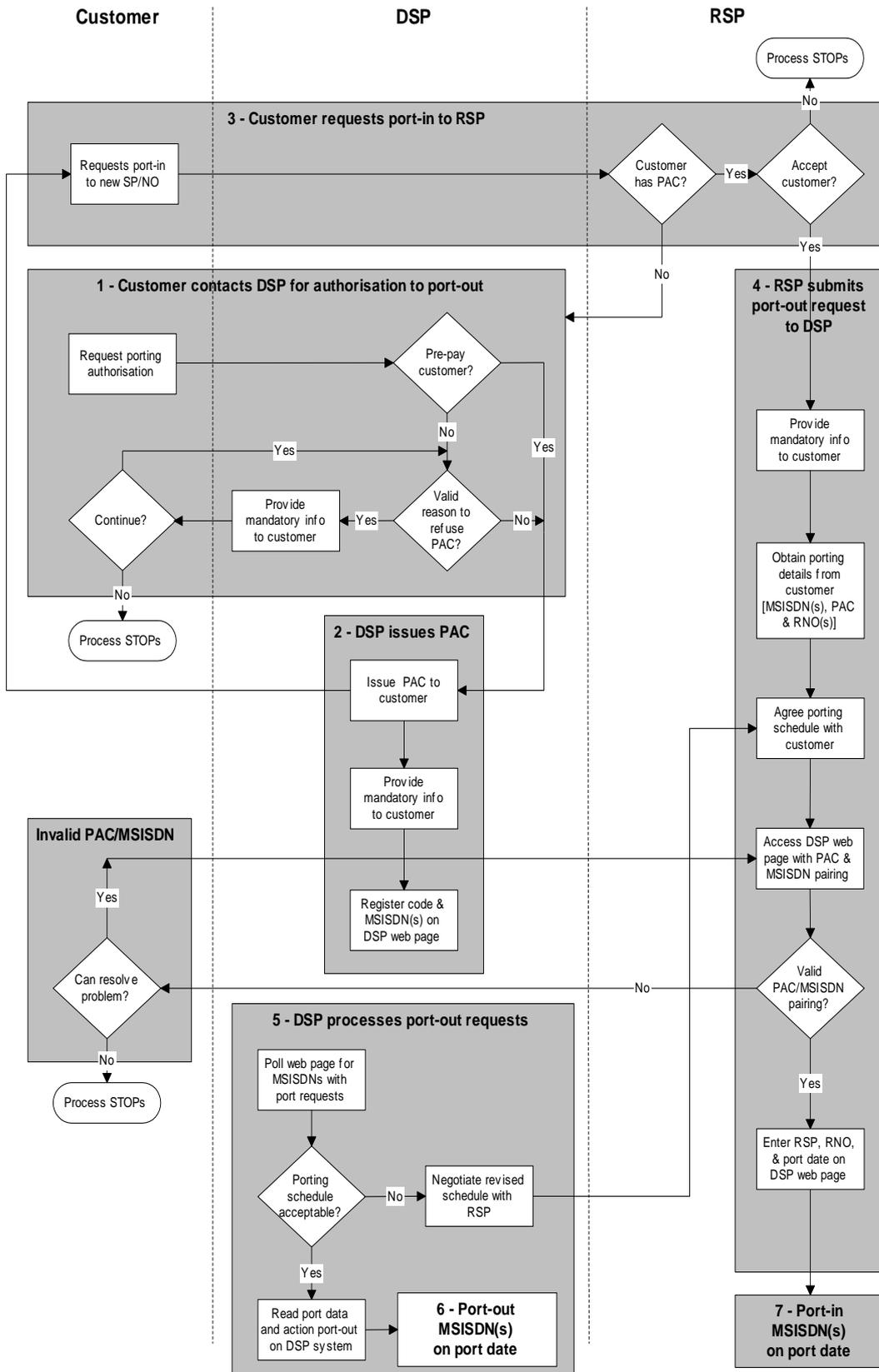


Figure 4 : Bulk Ports Process Flow

The bulk porting process contains the following steps:

1. Customer contacts DSP to obtain authorisation to port-out

The customer initially contacts the Donor Service Provider (DSP) to request authorisation to port-out. The customer may be either the authorised user or account holder of the porting MSISDN(s).

- The DSP validates the customer identity. Having validated the porting authorisation request, the DSP shall either:
 - issue a porting authorisation to the customer and register the authorisation on the MNP web system (see 2 below), or
 - offers one of the reasons set out in paragraph 6 of section 2.1 of this document as to why the issuing of a PAC has been refused.
- Prepay customers can only be refused a PAC if:
 - the MSISDN(s) is not held by the customer requesting the PAC
 - the MSISDN(s) is not held by a customer of the DSP
 - the DSP has already issued a PAC that is still valid.
 - they do not provide adequate identification that they are the legitimate holder of the MSISDN(s).
- The DSP must inform the customer of any subscription charges payable to the minimum contract term to be settled.
- The DSP cannot refuse to issue a port authorisation code if:
 - The customer has not paid their final airtime bill, notice period (not served), disconnection charges, or any porting charge before the port date. These charges should be included in the final airtime bill, which will be settled according to the terms of the contract.
 - The customer is in bad debt but is still connected to the airtime (i.e. the MSISDN is in receipt of service) at the time the request is received.
- If the customer has made a request for a porting authorisation by phone, and it is refused, the DSP may give reason(s) why it has been refused during the same phone call. In any event, whether the customer request was made by phone or in writing, a written confirmation of the reason(s) as set out in paragraph 6 of section 2.1 of this document as to why the issuing of a PAC has been refused must be despatched to the customer by the DSP within 10 working days of receipt of the request.

2. DSP authorises port-out

a) *SP issues porting authorisation to customer*

- The DSP confirms that should a port-out request be received from another SP for the customer's specified MSISDN(s) the port-out request shall be honoured and expedited according to the agreed industry-wide SLA.
- The DSP issues the customer a unique port authorisation code (PAC) which applies to the specified MSISDN(s) to be ported.
- The same PAC may be associated with any number of MSISDN's for the same customer. The full authentication of an individual porting request is actually the combination of the MSISDN and its associated PAC.
- The customer may make a PAC request in any form available from the SP i.e. letter, E-mail. Where a request for a porting authorisation is made by phone, the DSP may issue the PAC to the customer during the same phone call.
- However, the DSP is entitled to insist on a written porting authorisation request with the customer's signature before issuing a PAC, if it is their current business policy to require the customer's signature for confirmation of a termination request. In this case, the DSP shall explain to the customer how to submit the written authorisation request, and shall proceed according to the following step.
- In any event, whether or not the PAC is issued to the customer over the phone, a written confirmation of the porting authorisation and PAC must be despatched to the customer by the DSP within 10 working days of receipt of the request.
- The DSP should indicate any practical restrictions that may apply when agreeing to the porting schedule.

b) *DSP provides mandatory information to customer*

- A written confirmation of the authorisation to port-out shall include the following information:
 - The port authorisation code (PAC)
 - Confirmation of the 30 day validity period for the PAC (start and expiry dates)
 - Confirmation of the MSISDN(s) to which the PAC applies.
 - Confirmation that service will be discontinued on the port date for each MSISDN that receives a subsequent valid port-out request within the PAC validity period
 - Clarification of whether or not it is the SP's policy that service (and subscription charges) will continue for any secondary MSISDNs that remain on the DSP after their primary MSISDN is ported-out

- Notification that the issue of the PAC is taken to revoke any previous termination notice
- Confirmation that service (and any associated subscription charges) will continue if no port-out request is received, even if the customer has previously given notice to terminate
- For the purpose of determining the account holders obligations with regard to giving notice, confirmation that the contract termination period is taken to commence on the date of issue of the PAC, or the date of any previous notice to terminate, whichever is the earlier.
- The DSP shall issue a MNP guide to the customer together with the written porting authorisation. Guide template can be found in the appendix.

c) *DSP registers PAC & MSISDN on the MNP web system*

- The DSP shall ensure that an entry is created on the MNP web system for each porting MSISDN. Each entry shall include the following data.
 - The MSISDN, its primary/secondary status, its DNO and its associated PAC
 - The primary MSISDN (for secondary MSISDNs only)
 - The PAC validity period.

3. Customer requests port-in to RSP

The customer selects a new Service Provider (RSP) and Network Operator (RNO) and requests to port-in their MSISDN(s) from their current Service Provider (DSP).

- The RSP cannot proceed with the port-in request if the customer does not have a valid PAC. In this case the customer should be referred to the DSP to request authorisation to port-out.
- The RSP is entitled to decline the port-in request.

4. RSP submits port-out request to DSP

If the RSP and customer agree to continue with the port-in, the RSP shall submit the port-out request to the DSP for each porting MSISDN by means of the MNP web system.

- The RSP shall confirm the following mandatory information to the porting customer:
 - The customer has entered into a contractual agreement with the RSP to support service against the ported MSISDN(s) on the recipient network, unless the customer has opted for a Prepay proposition.
 - the porting request shall always represent a notice to terminate the current subscription for the porting MSISDN on the DSP on the port date.
 - if the porting MSISDN is on a prepay service with the DSP the customer must use any outstanding credits or risk losing them.
- The RSP and customer agree a proposed porting schedule for all MSISDN's that are porting out from the DSP (taking into account any practical restrictions indicated by the DSP)
- The customer shall provide the RSP with the following porting details:
 - porting MSISDN(s)
 - PAC for each MSISDN
 - RNO for each MSISDN
- The RSP shall enter the PAC/MSISDN pairing into the MNP web system.
- The web system shall either:
 - Accept the PAC/MSISDN pairing and prompt the RSP to enter the porting details (RNO, RSP, and port date) for the MSISDN
 - Reject the PAC/MSISDN pairing as invalid and return an error message to confirm the reason (see Section , below)

- The DSP can view the porting schedule from the web system against the PAC(s) for the bulk request and must confirm no later than the Working Day before the Port date. This should be done without ‘locking’ the porting schedule.
- The DSP may wish to negotiate a revised porting schedule with the RSP if they are unable to meet the original proposed schedule for operational reasons. In this case the RSP may agree a revised porting schedule which is mutually acceptable to all parties. The RSP shall then update the port-out requests on the MNP web system to reflect the revised port dates for all relevant MSISDNs.
- The RSP shall include an RSP contact name with the bulk requests submitted to the web system
- The RSP can cancel or amend the porting details on the MNP web system, on request by the customer, at any point up to the time the porting schedule is confirmed by the DSP. Once the DSP has agreed the porting schedule and ‘locked’ the porting details, RSP access to the entry on the web system is ‘denied’. Any amendment will need to be actioned via the exception conditions described in Section 6.1.4 **Unlocking PAC codes**.

5. DSP processes port-out requests

See also MNP web system functional specification Ref 11, Section 1.5 for operational details.

a) *DSP polls MNP web system for port-out requests*

- Daily, the DSP “polls” the MNP web system to identify MSISDNs, which have received port-out requests. This is at the discretion of the DSP; however PAC’s should be read and locked. Unless the DSP relies on the web system provider to carry out auto-locking, the locking should be completed between the hours of 18:00 and the Locking Cutoff on the Working Day before the Port Date allowing cancellations by the RSP to take place without input from the DSP. If the DSP elects to lock before this time they must ensure they have support staff available up to 17:00 on the Working Day prior to the port in order to unlock entries should it be requested following a cancellation request from the customer.
- The DSP shall be able to choose from a number of options in identifying MSISDNs to be ported, as follows:
 - Identify MSISDNs to be ported today – this allows the port details for each MSISDN to be read from the web page and (manually) input into the internal porting systems for immediate action.
 - Identify MSISDNs to be ported X days from today – this is similar to the option above, but allows X days to manually process the data onto the DSP’s internal systems

- Identify MSISDNs for all newly received port-out requests – this allows a DSP to immediately process all new requests, and to exploit any “diarisation” capability on their internal systems to action the port-out on the specified port date

b) *DSP reads port data from MNP web system*

- Each DSP shall be free to process port-out requests submitted via the MNP web system in a manner which is most compatible with their present internal porting systems and operational processes.
- Each SP shall be able to choose from a number of options in transferring the porting details from the MNP web system onto their internal porting systems, as follows:
 - Read port details from the polled entries on the web page, and manually enter the necessary data onto the internal porting systems
 - Print a port details report from the web page for the polled entries, and manually enter the necessary data onto the internal porting systems
 - Retrieve the port details for the polled entries on a common file format (e.g. ASCII) for direct data transfer into the internal porting systems

6. Port-in MSISDN(s) on port date

- On or before the port date³ the RSP shall set up a new subscription for the porting MSISDN on the RNO to be active on the agreed porting date
- The RSP should ensure that the porting customer is in possession of an appropriate SIM and handset before the porting date.

7. Port-out MSISDN(s) on port date**a) DSP initiates port-out actions**

- On or before the port date⁴ the DSP shall initiate the port-out of the MSISDN from the DNO
- The port-out processes shall ensure that, until the agreed porting date:
 - the current subscription remains active on the DNO, and
 - the residual subscription remains unchanged on the ONO
- The DSP shall pass the following data to the DNO:
 - porting MSISDN
 - RNO
 - porting date

b) DNO proceeds with port-out

- Upon receipt of the port-out data (see 8.1, above) the DNO shall:
 - validate the MSISDN to confirm that it is supported by an active current subscription.
 - notify the DSP of any invalid porting MSISDNs
- On the porting date, for valid porting MSISDNs, the DNO shall request the ONO to re-route incoming traffic to the porting MSISDN towards the RNO.
- The DNO shall provide the ONO with the following porting data:
 - porting MSISDN
 - RNO
 - porting date (for audit purposes only)

³ The actual time at which the RSP performs this action will depend upon the specific functionality of the RSP and/or RNO systems. The RSP is free to initiate the port-in before the port date, if these systems have the capability to “diarise” the port-in action in advance so as to take place on the port date as specified in the porting event timeline in Appendix B.

⁴ The actual time at which the DSP performs this action will depend upon the specific functionality of the DSP and/or DNO systems. The DSP is free to initiate the port-out action before the port date, if these systems have the capability to “diarise” the port-out action in advance, so as to take place on the port date. As specified in the porting event timeline in Appendix B.

c) *ONO modifies residual subscription*

- The ONO shall validate the “ownership” of the porting MSISDN, and shall reject any re-route request submitted by a NO which is not the DNO for the porting MSISDN
- For valid re-route requests, the ONO shall modify the residual subscription to re-route traffic to the RNO as requested, and shall confirm the modification of the residual subscription to the DNO **and** the RNO

d) *DNO completes port-across actions*

- Upon confirmation that the residual subscription has been modified, the DNO shall terminate the current subscription for the porting MSISDN before the end of the porting day (i.e. no later than 2400 hours on the port date).
- If the re-route request is rejected, the DNO/DSP shall investigate and rectify the erroneous data, and re-submit the re-direction request.

Appendix C illustrates the timeline for the actual porting event (i.e. the transfer of the porting MSISDN(s) across networks) and clarifies the sequence of NO actions and the nature of the porting “window”.

3.3 Reasons Bulk process may not complete

The process as outlined above will not reach completion if one of the steps along the way is unable to be completed. The porting process will only be allowed to complete if the necessary information is supplied and the business rules are not violated

The PAC/MSISDN pairing may be rejected as invalid by the MNP web system for one of the following reasons:

- **Invalid MSISDN/PAC pairing** - the access attempt has used a MSISDN/PAC pairing which does not match any current entry on the MNP web system. This indicates that either:
 - the PAC is incorrect, or
 - the PAC is not correctly matched with the MSISDN

In this case the customer should check that their PAC is valid, and is matched with the correct MSISDN(s).

- **Entry closed** - the access attempt has used a MSISDN/PAC pairing which matches an entry on the web site, but the entry status = “closed”. This indicates that a valid port-out request for the MSISDN has already been submitted by another SP. The customer cannot attempt to port-in a MSISDN to more than one SP at the same time.

- **Expired PAC** - the access attempt has used a MSISDN/PAC pairing which matches a current entry on the web site, but the attempt is past the expiry date of the PAC. In this case the customer will need to re-apply to the DSP for another PAC.
- **Entry read** - the access attempt has used a MSISDN/PAC pairing which matches an entry on the web site, but the entry status = “read”. This indicates that the DSP has already read the port-out request from the web system in order to action the request, and RSP access to the entry has been locked-out. In this case the RSP cannot amend the port request submitted to the DSP, and the port will take place as specified. In extreme cases, the RSP may contact the DSP resolution hotline to amend the port details in advance of the port date see also Section 6, Recovery Processes.
- **Entry cancelled** - the access attempt has used a MSISDN/PAC pairing which matches an entry on the web site, but the entry status = “cancelled”. This indicates that the customer has previously requested the DSP to cancel the PAC for the porting MSISDN.

4 MIGRATIONS PROCESS

The scope of the Migrations process is SP to SP communication only.

The process **covers**:

- Customer contacts DSP to obtain authorisation to port out
- DSP authorises port out and issues PAC
- Customer requests port in to RSP
- RSP submits port out request to DSP
- Invalid PAC/MSISDN pairing
- DSP processes port out requests

The process **does not cover**:

- communication between the SP and Network Operator.
 - Specific actions required by the Network to process the Migration
- These are subject to the individual operating requirements of each NO.**

5 TERMINATION OF SERVICE

5.1 Reasons for termination

There are two main reasons for termination of service for a MSISDN

1. Voluntary Disconnection
 - The subscriber elects to end their contract with the current SP
 - A pre-pay service terminates after a period of disuse, subject to the terms and conditions of the current NO
2. Involuntary Disconnection
 - The current SP terminates the subscription (e.g. contract breach) or prepay service.

5.2 Number management after termination

MSISDNs must be placed in quarantine by the current NO for a period of 6 months after termination. Whilst in quarantine there will be no active services. Calls to this number receive an 'out of service' tone.

5.3 Possible events after termination

There are only two possible events post-disconnection:

1. Customer requests reactivation of number within quarantine period. Number can only be reactivated if requested of same SP and NO as disconnected from.
2. At end of quarantine period number is repatriated back to ONO ready for reuse.

5.4 Process and responsibilities

5.4.1 Termination

1. Current SP processes request for termination
2. Current NO terminates all services on subscription or prepay service.
3. Current NO places terminated MSISDN in quarantine for 6 months from termination date.
4. ONO continues to operate as prior to termination:
 - maintain active residual subscription for the ported MSISDN.
 - Re-route calls to MSISDN to the current NO
5. Current NO terminates calls to MSISDN with 'out of service' tone.

5.4.2 Re-activation

1. Current SP reactivates the subscription or prepay service
2. Current NO activates requested services on reactivated MSISDN
3. ONO responsibilities remain the same:
 - Maintain active residual subscription for the ported MSISDN.
 - Re-route calls to MSISDN to the current NO

5.4.3 Repatriation

1. Current NO records the termination date of the ported MSISDN and notifies the ONO of the repatriated MSISDN and its termination date when the quarantine period expires.
2. Current NO prevents re-activation of the MSISDN on expiry of the quarantine period.
3. ONO acknowledges repatriation of MSISDN
4. ONO terminates residual subscription for repatriated MSISDN and stops re-routing calls to the CNO
5. MSISDN is now under control of ONO to use as required.

5.4.4 Ports in Error

Where a wrong number has been ported in error, it is the responsibility of the network porting in the number in error to deactivate that service once the error has been discovered.

It shall also be the responsibility of that network to ensure that when such a service is deactivated, a repatriation request is **not** triggered at the end of the quarantine period following the deactivation.

6 RECOVERY PROCESSES

The MNP User Implementation Group (UIG) has reviewed the end-to-end porting process in order to identify any problems, which may potentially arise within it. This rigorous analysis has sought to establish **all** potential problem scenarios, without consideration to the feasibility or probability of their occurrence.

This Section describes all identified problem scenarios, and proposes suitable recovery mechanisms for their resolution.

Problem scenarios are identified in Section 6.3 in which either:

For each problem scenario, one or more “symptoms” are indicated. These symptoms describe the actual condition(s) which may arise as a result of the problem(s) with the porting process, and which will indicate the specific problem scenario that has occurred.

Recovery mechanisms are described in Section 6.4 for each problem scenario, indicating:

1. the appropriate resolution path
2. the necessary actions to resolve the problem

Finally, Section 6.5 presents a simple diagnostic table, which may assist in identifying the nature of any apparent porting problems, which are reported by the porting customer on the porting day.

6.1 Port Cancellation Process

When cancelling a port request the following process needs to be followed by all members of the industry, in the interest of consistent customer experience.

6.1.1 Process for the RSP

In cases where the customer selects the default port date of the next Working Day, the RSP shall advise the customer that they will not be able to cancel the port-in request once it has been submitted i.e. once a PAC has been **closed** on the MNP web system except in accordance with section **6.1.5 Exceptional Circumstances**.

However, should the customer select a port date later than the next Working Day, the RSP shall advise the customer that they may cancel the port-in up to 1 full working day before the day of the port. (For example a port due to take place on a Friday may be cancelled on the Wednesday of that week). This may be done by notification to the RSP. If the customer does not contact the RSP within this timeframe requesting a cancellation of the port then they shall not be permitted to do so except in accordance with section **6.1.5 Exceptional Circumstances**.

Where it is agreed that a port may be cancelled, the RSP shall remove the intention to port from their systems and also from the MNP web system by **cancelling** the entry. This will result in the entry status changing from **closed** to **open**. This will only be possible if the entry is in the **closed** state when the request to cancel the port is received by the RSP. Where the entry is in the **Locked** state, refer to section **6.1.2: If the PAC is locked**.

The customer shall also be advised to contact the DSP and advise them of the change.

6.1.2 If the PAC is locked

An entry that is in a **Locked** state may be **Unlocked** by the DSP thus allowing the entry to be changed from the **Closed** state to the **Open** state for the purpose of cancellation. See section **6.1.4 Unlocking PAC codes** for further information on this.

If such a request is made of the DSP by 18:00 on the Working Day before the port date as outlined in section **6.1.1 Process for the RSP** then the DSP shall endeavour to unlock the entry irrespective of the reason. If the request is made after this time and there are exceptional circumstances as outlined in section **6.1.5 Exceptional Circumstances**, then the escalation contacts of the DSP and RSP may discuss the matter and agree a way to proceed. If no agreement is reached then the port shall proceed as planned.

If the customer wishes to remain with the DSP and the port is unable to be cancelled then the 14 day return regulations may apply. The RSP (that becomes the DSP) will need to re-issue a new PAC to the customer so that they may port back to the original or another SP.

6.1.3 Change port date.

Customers wishing to change the port-date, will also need to follow the same process as for cancelling a port, and resubmitting the new date.

6.1.4 Unlocking PAC codes

A locked port may be unlocked in accordance with the rules outlined in the section. This requires the RSP to mark the entry '**unlockable**'. Only after this has been done may a locked entry then be unlocked by the DSP. Both the DSP and RSP will need to coordinate their activities together to facilitate this process.

The DSP may request the RSP to mark an entry unlockable at anytime prior to the port. The RSP must mark the entry unlockable if the request is received before 18:00 on the Working Day prior to the port.

Example:

A customer decides to cancel their port, which has already been locked by the DSP, at 17:30 on the Working Day before the port. This request is made to the DSP which then contacts the RSP and requests that they mark the entry unlockable. This request must be made the RSP before 18:00.

Unlocking is done by selecting '**Unlock Entry**' from the '**Main Menu**' on the MNP web system and entering in the PAC and MSISDN. The entry details should show the entry as being '**Locked**'. It should then be possible to mark the entry as '**Unlockable**' by selecting '**Mark Entry Unlockable**'. Once this is complete the DSP should then be able to unlock the entry in the normal way. This should then result in the entry state being changed to '**Closed**' allowing the entry to be **Cancelled** and **Deleted** as necessary.

6.1.5 Exceptional Circumstances

Ports that are scheduled to take place on the next day which are subject to a request for cancellation made after 18:00 are only subject to cancellation where it is agreed between the DSP and RSP that **Exceptional Circumstances** exist.

The DSP shall only unlock such an entry where it has come to notice that the port is agreed to be erroneous or has been entered into the MNP web system as a result of fraudulent activity.

Further to this the entry may only be unlocked after the matter has been escalated and agreed by the escalation contacts at both the RSP and the DSP.

6.1.6 Ports involving Fraud

Ports that have taken place as a result of fraudulent activity may be reversed where either the DSP or RSP identifies that the fraud has occurred. Requests for the reversal of ports may not be unreasonably withheld. Following a request to reverse a port, the SP receiving the request must make all reasonable efforts to reverse the port in the shortest time possible. Where the fraud is identified before the port has occurred the reversal request shall be treated in the same way.

6.1.7 Reversal of Fraudulent Ports

Where it has been identified that a port is fraudulent and it is to be reversed, the reversal process must be the standard porting process with a new PAC/MISDN pairing having been created, ie that the entry is Closed then Locked before it is ported back to the correct network.

Where it is agreed between both RSP and DSP that a manual reversal will take place prior to the formal porting process, it shall be acceptable to do this on the condition that the entry is also Closed and Locked even if this takes places after the manual reversal.

It is also a requirement that a REQ file is sent as part of the port request as per the standard process. This is to ensure consistency of data across networks and to track the ownership of numbers in cases involving fraud.

Where the Service Provider returning the number decides it is advisable to cancel the number they shall be free to do this.

6.2 Communications

In circumstances where there are interruptions to the porting process and a Communications Provider is unable to adhere to the industry agreed Porting Process, it is their responsibility to communicate this immediately to the other CPs along with any useful information as to when the problem will be resolved.

6.3 Porting Process Problem Scenarios

Problem Scenario	Symptom
1. RSP performs standard connection instead of port-in request	Customer calls Dealer/RSP when bill arrives for new MSISDN Dealer calls RSP to correct erroneous connection for new MSISDN
2. RSP fails to receive port-in request from Dealer	Customer calls RSP (at any time) but RSP has no record of request Dealer calls RSP (at any time) but RSP has no record of request Customer/Dealer calls DSP (at any time) but DSP has no record of RSP port-out request
3. Customer gives RSP invalid or incorrect PAC/MSISDN pairing	PAC/MSISDN pairing rejected by MNP web system
4. RSP fails to submit port-out request to DSP	Same as 2 (above)
5. DSP fails to read port-out request	Port-out request on MNP web system does not go to “read” status by or before the port date See also 12 (below)
6. Dealer fails to notify RSP of customer withdrawal	Customer receives RSP Welcome Letter Customer loses service on DNO (see also 34)
7. RSP fails to receive customer withdrawal	Same as 6 (above)
8. RSP fails to notify DSP of withdrawal before DSP reads port-out request	PAC/MSISDN pairing rejected by MNP web system
9. RSP and DSP both agree need to terminate porting process (and/or suspend and re-start with new port date)	RSP or DSP notified of death of customer Other mutually agreed reason to terminate process
10. RSP fails to action port-in	Customer can't make or receive calls on RNO Customer/Dealer is not issued new handset/SIM (Customer also won't receive bill from RSP)
11. RNO fails to action port-in (i.e. RSP account active, but not active on RNO)	Customer can't make or receive calls on RNO (but will receive bill from RSP)

12.DSP fails to action port-out	Customer can make but can't receive calls on RNO Customer receives bill from RSP and DSP!
13.DNO fails to action port-out (i.e. DSP account closed, but still active on DNO)	Customer can't make or receive calls on RNO - can make but not receive calls on RNO Customer receives bill from RSP but not from DSP
14.Both RSP and DSP fail to action port	Customer can't make or receive calls on RNO - can still make and receive calls on DNO Customer/Dealer is not issued new handset/SIM (Customer also won't receive bill from RSP)
15.Both RNO and DNO fail to action port (i.e. DSP account closed, but still active on DNO and RSP account active, but not active on RNO)	Customer can't make or receive calls on RNO - can still make and receive calls on DNO (Customer receives final bill from DSP and also new bill from RSP)
16.ONO rejects DNO port-out request (this becomes problem 15 if after 1500 hours on port day)	DNO system receives reject response from ONO (wrong ONO or other reject code)
17.ONO fails to action port-out request (this becomes problem 15 if after 1500 hours on port day)	DNO system doesn't receive expected ONO response by 1500 hours on port day RNO system doesn't receive ONO confirmation response by 1500 hours
18.ONO actions but fails to confirm port-out request	same as 17 above (note that the lack of ONO confirmation will result in no systems trigger for the application of the porting administration charges by the RNO and DNO)
19.ONO actions request incorrectly (version A - wrong MSISDN to correct RNO) ⁵	same as 17 above, plus DNO system receives ONO confirmation response for "wrong" MSISDN RNO system receives ONO confirmation response for "wrong" MSISDN
20.ONO actions request incorrectly (version B - wrong MSISDN to wrong RNO)	same as 17 above, plus DNO system receives ONO confirmation response for "wrong" MSISDN

⁵ Note that all problem scenarios in which the ONO successfully performs an "incorrect port-out" - i.e. in which the residual subscription is modified incorrectly - will result in a systems trigger for the inappropriate application of the porting administration charges. These scenarios may arise from errors caused by the DSP, DNO, or ONO.

	RNO system doesn't receive ONO confirmation response by 1500 hours on port day Other NO ("wrong" RNO) system receives unexpected ONO response
21.ONO actions request incorrectly (version C - correct MSISDN to wrong RNO)	DNO system receives expected ONO response but confirmation indicates "wrong" RNO RNO system receives ONO response but confirmation indicates "wrong" RNO
22.RSP activates subscription before port date	Line rental commences prematurely
23.DSP fails to terminate current subscription	Line rental continues after port date
24.Wrong customer is ported by DSP (version A - wrong MSISDN to correct RNO)	"Real" porter can make and receive calls on DNO - can make but not receive calls on RNO "Wrong" porter loses all service on DNO
25.Wrong customer is ported by DSP (version B - wrong MSISDN to wrong RNO)	"Real" porter can make and receive calls on DNO - can't make or receive calls on RNO "Wrong" porter loses all service on DNO
26.Customer is incorrectly ported by DSP (correct MSISDN to wrong RNO)	"Real" porter can't make or receive calls on DNO - can't make or receive calls on RNO
27.Wrong customer is ported by RSP	"Real" porter can't make or receive calls on DNO, and can't make or receive calls on RNO (“Real” porter may also receive new bill from RSP showing “wrong” porter’s MSISDN) "Wrong" porter retains full service on DNO, has no knowledge of new subscription on RNO
28.Wrong customer is ported by RSP and DSP (DSP may port wrong customer to correct RNO or wrong RNO)	"Real" porter can still make and receive calls on DNO - can't make or receive calls on RNO (“Real” porter may also receive new bill from RSP showing “wrong” RSP porter’s MSISDN)

	"Wrong" DSP porter loses all service on DNO "Wrong" RSP porter retains service on its NO [may be a different NO], has no knowledge of new subscription on RNO)
29. Wrong customer is ported by RSP and DSP incorrectly ports customer (to wrong RNO)	same as 28 above, but no "wrong" DSP porter symptoms exist
30. Wrong customer is ported by DNO	same as 24 and 25
31. Customer is incorrectly ported by DNO	same as 26
32. Wrong customer is ported by RNO	same as 27
33. Wrong customer is ported by RNO and DNO	same as 24, 25 and 27
34. Customer wrongly ported	Customer loses service on DNO, has no knowledge of new subscription on RNO Customer receives new bill from RSP

6.4 Problem Resolution Processes

Problem	Problem Scenario	Resolution Path	Resolution Action
1.	RSP performs standard connection instead of port-in request	Out of UIG scope	Internal procedure between Dealer and RSP
2.	RSP fails to receive port-in request from Dealer	Out of UIG scope	Internal procedure between Dealer and RSP
3.	Customer gives RSP invalid or incorrect PAC/MSISDN pairing	RSP rechecks with customer	Customer reconfirms with DSP if necessary
4.	RSP fails to submit port-out request to DSP	Out of UIG scope	Internal - between RSP and customer
5.	DSP fails to read port-out request	RSP calls DSP resolution hotline	DSP checks receipt of port-out request RSP re-sends request (if necessary) DSP returns ACK on same day
6.	Dealer fails to notify RSP of customer withdrawal	Customer queries with Dealer/RSP	RSP withdraws port-out request on web system if status = "closed" Same as 8 if port-out request status = "read" and before port date Same as 34 if after port date
7.	RSP fails to receive customer withdrawal	Same as 6 (above)	Same as 6 (above)
8.	RSP fails to notify DSP of withdrawal before DSP reads port-out request	RSP calls DSP resolution hotline	RSP calls DSP resolution hotline to withdraw request
9.	RSP and DSP both agree need to terminate porting process after PONR (and/or suspend and re-start with new port date)	RSP calls DSP resolution hotline, or DSP calls RSP resolution hotline	If agreed by both parties, RSP and DSP cancel pending actions, RSP contacts Dealer and/or customer
10.	RSP fails to action port-in	Customer calls RSP porting problem hotline Customer calls Dealer - Dealer refers customer to RSP	RSP resolves immediately
11.	RNO fails to action port-in (i.e. RSP account)	Customer calls RSP porting problem hotline	RSP resolves with RNO immediately

	active, but not active on RNO)	Customer calls Dealer - Dealer refers customer to RSP	
12.	DSP fails to action port-out	Customer calls RSP porting problem hotline Customer calls Dealer - Dealer refers customer to RSP Customer calls DSP - DSP refers customer to RSP	RSP calls DSP resolution hotline - DSP resolves on same day
13.	DNO fails to action port-out (i.e. DSP account closed, but still active on DNO)	Customer calls RSP porting problem hotline Customer calls Dealer - Dealer refers customer to RSP Customer calls DSP - DSP refers customer to RSP	RSP calls DSP resolution hotline - DSP resolves with DNO immediately
14.	Both RSP and DSP fail to action port	Customer calls RSP porting problem hotline Customer calls Dealer - Dealer refers customer to RSP Customer calls DSP - DSP refers customer to RSP	RSP resolves immediately and calls DSP resolution hotline - DSP resolves on same day
15.	Both RNO and DNO fail to action port (i.e. DSP account closed, but still active on DNO and RSP account active, but not active on RNO)	Customer calls RSP porting problem hotline Customer calls Dealer - Dealer refers customer to RSP Customer calls DSP - DSP refers customer to RSP	RSP resolves with RNO immediately and calls DSP resolution hotline - DSP resolves with DNO immediately
16.	ONO rejects DNO port-out request (this becomes problem 15 if after 1500 hours on port day)	DNO handles internally	DNO resolves and re-submits request to correct ONO
17.	ONO fails to action port-out request (this	DNO calls ONO resolution hotline (requires	DNO resolves with ONO

	becomes problem 15 if after 1500 hours on port day)	new inter-Operator IT O&M ⁶ teams and procedures)	
18.	ONO actions but fails to confirm port-out request	same as 17 above	
19.	ONO actions request incorrectly (version A - wrong MSISDN to correct RNO)	same as 17 above	
20.	ONO actions request incorrectly (version B - wrong MSISDN to wrong RNO)	same as 17 above	
21.	ONO actions request incorrectly (version C - correct MSISDN to wrong RNO)	same as 17 above	
22.	RSP activates subscription before port date	Customer queries RSP	RSP resolves internally
23.	DSP fails to terminate current subscription	Customer queries DSP	DSP resolves internally
24.	Wrong customer is ported by DSP (version A - wrong MSISDN to correct RNO)	<p>“Real” porter calls RSP - RSP diagnoses problem and calls DSP resolution hotline</p> <p>“Real” porter calls DSP - DSP refers porting customer to RSP</p> <p>“Wrong” porter calls DSP</p>	<p>DSP actions port-out for correct MSISDN (may require RSP to re-fax original PIR)</p> <p>DSP identifies “wrong” MSISDN and actions a “port back” using ONO resolution hotline⁷</p> <p>DSP identifies erroneous disconnection and reconnects “wrong” porter (DSP may also diagnose porting problem and resolve)</p>

⁶ Each Network Operator needs to establish new O&M (Operations and Maintenance) teams to resolve problems with the inter-Operator IT systems interface.

⁷ The porting process prohibits the DNO sending a subsequent “port-out” request to the ONO in order to “port back” the erroneously ported MSISDN. This is because the ONO validation of the DNO request will not recognise the DNO as the current Network for the ported MSISDN (this is now the RNO). However, it is perceived that the DNO and ONO IT O&M teams should be able to make use of the ONO port-out response to the DNO (which will have been sent on the port day) to recognise that the DNO is in the situation of having ported a wrong MSISDN, and their O&M processes will then permit the ONO to “port back” the MSISDN to the DNO.

25.	Wrong customer is ported by DSP (version B - wrong MSISDN to wrong RNO)	same as 24	same as 24
26.	Customer is incorrectly ported by DSP (correct MSISDN to wrong RNO)	“Real” porter calls RSP - RSP diagnoses problem and calls DSP resolution hotline “Real” porter calls DSP - DSP refers porting customer to RSP	DSP actions a “port back” using ONO resolution hotline (as in 26) and then actions port-out to correct RNO
27.	Wrong customer is ported by RSP	“Real” porter calls RSP - “Real” porter calls DSP - DSP refers porting customer to RSP	RSP diagnoses problem and resolves internally (de-activate wrong MSISDN and cancel any pending charges, plus activate correct MSISDN) see section 5.4.4
28.	Wrong customer is ported by RSP and DSP (DSP may port wrong customer to correct RNO or wrong RNO)	“Real” porter calls RSP - RSP diagnoses problem and resolves “Real” porter calls DSP - DSP refers porting customer to RSP “Wrong” DSP porter calls DSP	RSP resolves internally as in 29, and calls DSP resolution hotline DSP resolves as in 26
29.	Wrong customer is ported by RSP and DSP incorrectly ports customer (to wrong RNO)	“Real” porter calls RSP - RSP diagnoses problem and resolves “Real” porter calls DSP - DSP refers porting customer to RSP	RSP resolves internally as in 29, and calls DSP resolution hotline DSP resolves as in 28
30.	Wrong customer is ported by DNO	same as 24 and 25 (diagnosis requires subscription status enquiry on NO)	same as 24 and 25
31.	Customer is incorrectly ported by DNO	same as 26 (diagnosis requires subscription status enquiry on NO)	same as 26
32.	Wrong customer is ported by RNO	same as 27 (diagnosis requires subscription status enquiry on NO)	same as 27
33.	Wrong customer is ported by RNO and DNO	same as 24, 25 and 26 (diagnosis requires subscription status enquiry on NO)	same as 24, 25 and 26

34.	Customer wrongly ported	Customer queries with RSP - RSP checks port-in request authorisation and resolves via DSP resolution hotline Customer complains to DSP - DSP identifies erroneous disconnection and reconnects “wrong” porter (DSP may also diagnose porting problem and resolve via RSP resolution hotline)	RSP de-activates new subscription on RNO and cancels any pending charges, also calls DSP resolution hotline RSP actions port-out back to DNO DSP re-connects old subscription on DNO
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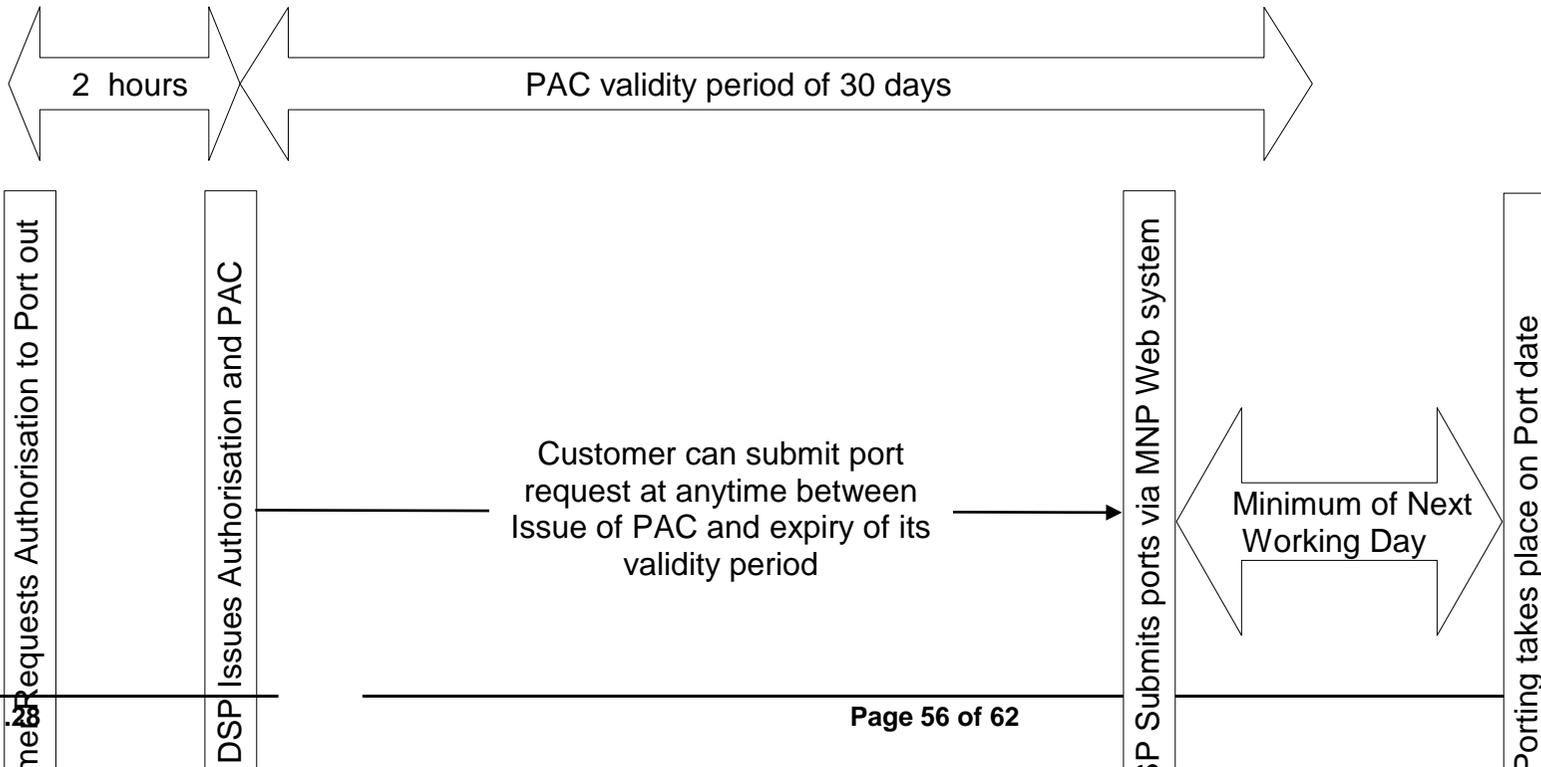
6.5 Porting Day Problem Diagnosis

The table below presents a simple diagnostic tool which may assist in identifying the nature of any apparent porting problems which are reported by the porting customer on the porting day.

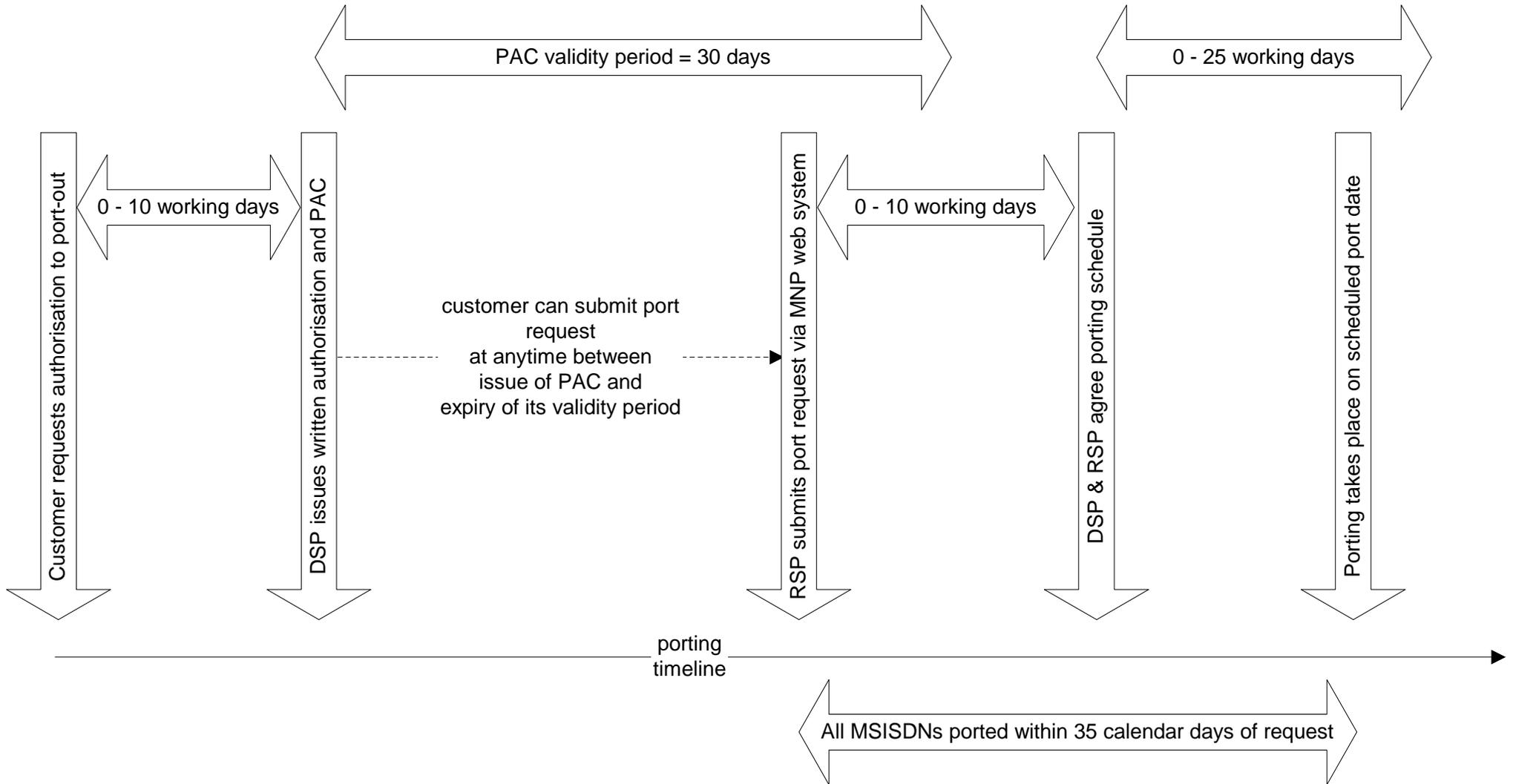
Capability on porting MSISDN				Diagnosis	Potential Scenarios
Outgoing calls can be made on DNO	incoming calls can be received on DNO	Outgoing calls can be made on RNO	Incoming calls can be received on RNO		
Yes	Yes	No	No	RSP and DSP may not yet have initiated (and certainly have not successfully completed) their respective porting actions	9, 10, 11, 12, 14, 15, 27, 28, 29, 32, 33
Yes	Yes	Yes	No	RSP has completed the port-in, but DSP may not yet have initiated the port-out	12
Yes	No	Yes	Yes	RSP has completed the port-in, and DSP has initiated the port-out (i.e. the ONO re-routing action is complete)	-

No	No	Yes	No	RSP has completed the port-in, but an error has occurred within the DSP port-out actions	13, 16, 17, (19, 20), 21, (24, 25), 26, 30, 31
No	No	No	No	DSP has completed the port-out, but an error or delay has occurred with the RSP port-in action	27, 32
No	No	Yes	Yes	RSP and DSP have completed their porting actions	34

Appendix A - Consumer Porting Process Timeline



Appendix B - Bulk Porting Process Timeline



This appendix explains the timescales, which relate to the end-to-end porting process for bulk ports, and the key events within it. A bulk port is defined as a port request of **more than 25 MSISDNs** (i.e. 26 or more MSISDNs in a single port request). These time-scales are driven by the following key SP timing requirements agreed by the MNP OSG:

- 1 Within 10 working days of receiving a request from the customer for authorisation to port-out, the DSP shall provide the customer with one of the following responses in writing:
 - A porting authorisation and PAC(s) to cover the MSISDNs for which the customer has requested authorisation to port
 - The value of subscription charges that must be paid prior to the issue of a PAC
 - The MSISDN(s) for which a PAC cannot be issued, and the reason(s) why authorisation to port-out is refused.
- 2 The PAC is valid for 30 calendar days from the date of issue, expiring at 18:00 on the last valid day.
- 3 The DSP must confirm their agreement to the port dates or the porting schedule within 10 working days of the submission of the bulk port-out request to the MNP web system by the RSP
- 4 The port date or porting schedule must ensure that each MSISDN is ported out from the DSP within 25 working days of the agreement of the porting schedule or port dates by the DSP.
- 5 The end-to-end timescale, from the submission of the bulk port-out request by the RSP to the completed porting of all requested MSISDNs, must be no more than 35 calendar days.
- 6 The customer is not entitled to amend the porting request, once the DSP has agreed the port dates or porting schedule with RSP.

Appendix C - Porting Event Timeline

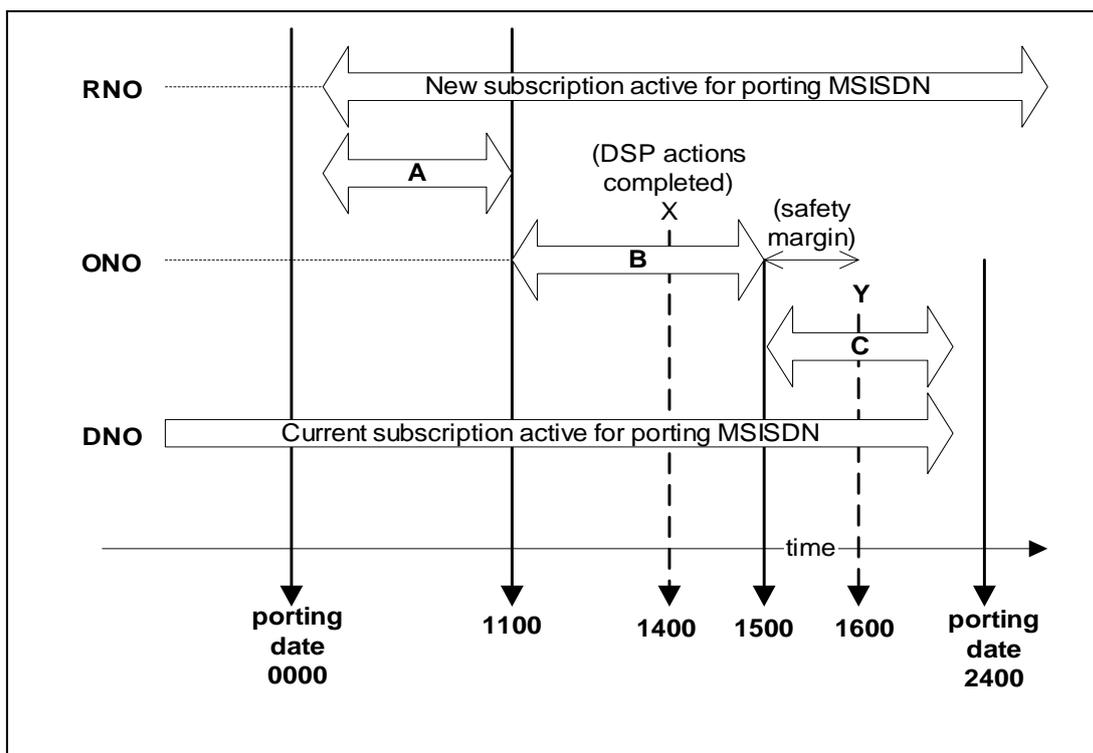
Figure 3, below, illustrates the timeline of the actual porting event - i.e. the sequence of Network Operator process transactions which perform the porting of the MSISDN across networks.

(Note that, in the case of an initial port, the DNO performs both DNO and ONO transactions described below.)

It is not realistic to specify that these transactions must happen at a **precise** time. In practice, each porting transaction may be scheduled to take place at a specific date/time, but there will be a time window (or “period of uncertainty”) within which the transaction will actually be performed.

In order to avoid discontinuity of service for the porting MSISDN it is necessary to impose the following constraints on the porting transactions:

1. the porting transactions must take place in a specific sequence
 2. each transaction must be completed before the next transaction commences
- In the timeline diagram below, the time intervals A, B and C represent the respective time windows for the RNO, ONO and DNO porting transactions described overleaf.



A. **RSP triggers the RNO to activate the new subscription for the porting MSISDN** – the new subscription must be active on the RNO on or before the porting date. This will enable:

- mobile-originating (MO) calls to be made by the porting customer on the RNO network (if using an appropriate SIM/handset combination for the RNO)

- mobile-terminating (MT) calls to be received on the RNO network once the residual subscription has been modified by the ONO
- B. **ONO modifies residual subscription** - this re-routes MT traffic into the RNO network and is only undertaken upon request from the DNO on **the porting date**.
- C. **DNO terminates the current subscription for the porting MSISDN⁸** - this prevents the porting customer from making further MO calls on the DNO network after the MSISDN has been ported to the RNO. The current subscription must:
 - not be terminated **before** the re-routing of MT traffic to the RNO; and
 - be terminated as close as is reasonably possible **after** the re-route has been completed.

This is necessary to ensure the customer receives continuity of service.

Implications for the customer

The following implications arise from the “periods of uncertainty” associated with the respective porting transactions (i.e. time windows A, B and C):

- the **total** time window for completing the porting of the MSISDN is **A+B+C** (i.e. the period during which service is - at least partially - supported for the porting MSISDN on **both** the DNO **and** RNO networks)
- the customer’s period of uncertainty is **B** - i.e. the “porting window” during which full service will be disrupted (specifically incoming calls) as incoming traffic is re-directed by the ONO from the DNO to the RNO

The second implication is significant for the customer and, as a result, the MNP Process Group has agreed the “porting window”, **B**, will be limited to run from 1100 to 1500 hours (see Event Timeline Figure on the previous page).

Implications for the SPs and ONO

In practice, the DSP and RSP may not have “diarised” systems capabilities, and will need to perform their respective porting actions on the porting date itself.

In order that the correct sequence of porting transactions is maintained, this imposes further constraints on the partitioning of activities across the porting event timeline; in particular, the RSP and ONO responsibilities across the porting window, B.

As a consequence, the following SLAs shall apply to the RSP, DSP, and ONO actions:

1. The RSP must activate the new subscription for the porting MSISDN on the RNO by no later than 1100 hours on the porting date.

⁸ Note that this action refers specifically to **the porting MSISDN**. If the customer’s porting request has not included the termination of the existing contract on the DNO it is possible that a subscription may continue on the DNO network to support service on an alternative MSISDN.

2. The DSP must initiate the port-out of the porting MSISDN on the RNO no earlier than 1100 hours, and by no later than 1400 hours on the porting date, as shown by the **X** on the Event Timeline.
3. The ONO must attempt to respond to each re-routing request from the DNO within one hour.

If these SLAs are maintained by all parties, the ONO should have completed its response to all porting requests by 1500 hours (a indicated on the Event Timeline).

However, in order to accommodate any variance in ONO systems against this challenging SLA, it is recommended that a “safety margin” of one hour is added into the timeline, and that the successful completion of the re-routing should not be queried until after 1600 hours on the port date, as shown by the **Y** on the Event Timeline. This allows a further hour (1600 - 1700 hours) to be used for recovery measures in the event of failed or erroneous ports.

APPENDIX D - PROCESS AMENDMENT REQUEST FORM

(Optional Format)

Process Amendment Request Form

Originator:	Date raised:
Proposed Change (please include proposed textual amendments to Process Manual):	
Benefits of change:	
Risk if change not implemented:	
Proposal: Accepted / Rejected	Date:
Reason for rejection (if applicable):	