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GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

NO. 518

29 MARCH 2019

**THE ORDERING SYSTEM SPECIFICATION FOR NUMBER PORTABILITY**

The Independent Communications Authority of South Africa (the "Authority") hereby publishes the Ordering System Specification (the "OSS") for Geographic, Non-Geographic and Mobile Number Portability in terms of regulation 7 of the Number Portability Regulations published in Government Gazette No. 41949 of 1 October 2018 (the "Number Portability Regulations").

The OSS is available on the Authority's website (www.icasa.org.za) and may be accessed in the ICASA Library at 350 Witch-Hazel Avenue, Eco Point Office Park, Eco Park, Centurion, Highveld Park 0169, Block C, during the Authority's office hours.

A handwritten signature in black ink, appearing to read 'Keabetswe Modimoeng', written over a horizontal line.

Dr Keabetswe Modimoeng
Acting Chairperson

Date: 26/03/2019

SECTION A**ORDERING SYSTEM SPECIFICATION FOR NUMBER PORTABILITY****1 DEFINITIONS**

In this OSS, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in the Number Portability Regulations, shall bear the same meaning.

"Act" means the Electronic Communications Act, 2005 (Act No. 36 of 2005), as amended;

"Block Operator" means a licensee that has been allocated a number block under the Numbering Plan;

"broadcast" means the process where the National Number Portability Database updates all operators and connected parties with the relevant information;

"business hours" means 09h00 - 17h00 on Mondays to Fridays and 09h00 - 13h00 on Saturdays;

"CCC" means the Complaints and Compliance Committee, an independent committee of the Authority established in terms of section 17A of the Independent Communications Authority of South Africa Act, 2000 (Act No. 13 of 2000);

"change of installation address" means that a Subscriber wishes to change the physical address where the service is currently installed;

"connected parties" means all electronic communications service (ECS) and electronic communications network service (ECNS) licensees and third parties and agents acting on behalf of ECS and/or ECNS licensees that are connected to, or interface with, the National Number Portability Database;

"deferred port" means a port that will be effected at a porting date not exceeding 31 calendar days subsequent to the Port Notification having been sent;

"donor operator" means a licensee from which the number/number block is being or has ported out;

"functional system specification" means Schedule A of the Number Portability Regulations;

“geographic number” has the meaning assigned to it in the Numbering Plan Regulations;

“geographic number portability” means the portability of geographic numbers;

“geographic location” means the national destination code area of the block operator;

“Individual Process” means the physical porting of one or more individual numbers or one single range of numbers in a single port request;

“individual number” means a single geographic number assigned to an individual Subscriber;

“Managed Process” means the processes leading up to, and the simultaneous physical porting of one single number range or groups (list) of individual geographic or non-geographic numbers that are of sufficient complexity to require the development of a customised porting process;

“Mobile Number” has the meaning assigned to it in the Numbering Plan Regulations;

“mobile number portability” means the portability of Mobile Numbers;

“national destination code” means the first three digits of a national number. In geographic numbers it depicts the geographic significance of that number;

“national number portability database” has the meaning assigned to it in the Number Portability Regulations, as amended;

“network synchronisation time” means the period during which activation and deactivation on the network and updating of routing tables shall take place;

“non-geographic number” has the meaning assigned to it in the Numbering Plan Regulations, as amended;

“Non-Geographic Number Portability” means the portability of numbers in the 080, 086 and 087 national destination code;

“Numbering Plan” has the same meaning assigned to it in the Numbering Plan Regulations;

“Numbering Plan Regulations” means the Numbering Plan Regulations, 2016 as amended, published in Government Gazette No. 39861 of 24 March 2016;

“operator” means an electronic communications service licensee, or an electronic communications network service licensee as defined in the Act;

“ordering system specification” has the meaning assigned to it in the Number Portability Regulations;

“physical porting” means the actual de-activation of a number(s) from the donor operator’s network and activation of the same number on the recipient operator’s network pursuant to the implementation of a port request;

“Port Notification” means a message between the NNPDB

“Port Request” means a request by a Subscriber to port their assigned number(s) from a donor operator to a recipient operator while retaining their assigned number (s) by the donor operator;

“port authorisation time” means the date and time when physical porting of a geographic and/or non-geographic number is scheduled to take place;

“ported number” means a number that has been ported from one operator to another operator pursuant to a Port Request;

“recipient operator” means a licensee to whom a number or, number block has been ported in and provides a service to a Subscriber number after porting;

“Subscriber” has the meaning assigned to it in the Act;

“transaction” means the various inter-operator communications through the National Number Portability Database; and

“vendor” means the supplier of any telecommunications end user equipment that may be relevant to porting activities.

ABBREVIATIONS

DO	Donor Operator
FSS	Functional System Specification
GNP	Geographic Number Portability
MNO	Mobile Network Operator
MNP	Mobile Number Portability
MSISDN	Mobile Station Integrated Service Digital Network Number
NDC	National Destination Code
NNP	Non-Geographic Number Portability
NNPDB	National Number Portability Database
NST	Network Synchronisation Time
OSS	Ordering System Specification
PAT	Port Authorisation Time
PST	Porting Support Team
SIM	Subscriber Identification Module
SMS	Short Message Service
SOAP	Simple Object Access Protocol
SPID	Service Provider Identity
RO	Recipient Operator

2 PURPOSE OF THIS OSS

This OSS:

- (1) specifies the process in terms of which an RO and a DO exchange information between each other in order to provide number portability to a Subscriber. It outlines the type of information to be sent, its format, the means of communication, the times when communications may be sent, the time limits for responses, and the handling of error conditions; and
- (2) prescribes the process which must be followed whenever a geographic, non-geographic and Mobile Number(s) assigned to a Subscriber is\are ported from one operator to another.

3 SCOPE AND APPLICATION OF THIS OSS

This OSS shall apply to all operators with:

- (1) Geographic number allocations;
- (2) Non-geographic number allocations in the 080, 086 and 087 NDC; and
- (3) Mobile Number allocations.

4 EXCLUSIONS

This OSS does not apply to Mobile Number allocation(s) that were exempted from the Machine Related Service migration in terms of Regulation 22(2) of the Numbering Plan Regulations.

5 OBLIGATIONS OF PERSONS BOUND BY THIS OSS

(1) The RO must:

- (a) receive and process port requests received from Subscribers as prescribed in this OSS;
- (b) lodge port requests with DO on Subscribers' behalf;
- (c) inform Subscribers of the success or rejection of their port requests;
- (d) ensure that all Recipient led porting activities occur on time, in accordance with the required service levels and in compliance with the OSS;
- (e) The RO must advise the Subscriber of the terms and conditions applicable to the port and the new services provided by the RO. These must be stipulated on the application form to be completed by the Subscriber.
- (f) confirm all Change of Installation Address requests with the block operator before proceeding with such changes;
- (g) return numbers to the block operator as prescribed by regulation 9(5) of the Number Portability Regulations;
- (h) declare charges to the Subscriber prior to initiating the port if the RO intends to charge a Subscriber for successful ports;
- (i) establish a PST which will handle all porting related issues to send and receive all notifications;
- (j) ensure that its Team Leader of the PST avail themselves to meet with other PST Team leaders at a minimum of once a month (unless agreed otherwise by the Team Leaders) to review the porting time statistics, with a view to resolving any technical issues impacting on porting response times;
- (k) maintain their own subset of information as required, with the information broadcasted by the NNPDB;
- (l) use the NNPDB download process to maintain their own subset of information from the NNPDB as and when required; and,
- (m) provide information and reports to:

- (i) the Authority relating to number portability to the extent required by the Number Portability Regulations. The reports must include porting time statistics for duration as requested by the Authority and a monthly average of failures/ breaches and timer violations; and
 - (ii) the DO to the extent reasonably requested by them.
- (2) The DO must:
 - (a) receive, process and validate port requests received from RO;
 - (b) accept or reject one or more individual numbers or the entire number range specified in the port request and inform the RO of the results, together with reasons in case of a rejection as prescribed in section 5 of the FSS;
 - (c) ensure that all donor led porting activities occur on time, in accordance with the required service levels and in compliance with the OSS;
 - (d) establish a PST which will handle all porting related issues to send and receive all notifications;
 - (e) Ensure that its Team Leader of the PST avail themselves to meet with other PST Team leaders at a minimum of once a month (unless agreed otherwise by the Team Leaders) to review the porting time statistics, with a view to resolving any technical issues impacting on porting response times.
 - (f) maintain their own subset of information as required, with the information broadcasted by the NNPDB;
 - (g) use the NNPDB download process to maintain their own subset of information from the NNPDB as and when required; and
 - (h) provide information and reports to:
 - (i) the Authority relating to number portability to the extent required by the Number Portability Regulations. The reports must include porting time statistics for duration as requested

by the Authority and should include a monthly average of failures or, breaches and timer violations; and

(ii) to the RO to the extent reasonably requested by them.

(3) Block operators must:

- (a) take back ported number(s) from ROs within 24 hours after the RO has issued a notice to that effect.;
- (b) verify that all "change of installation address" requests conform to the national destination code; and
- (c) must quarantine a returned number for a period of one (1) month.

(4) An operator may, in terms of rights and obligations of its Individual Electronic Communications Service licence, grants permission to its third-party agent and, or contractor to execute the porting transaction on its behalf.

(5) The purpose of the NNPDB shall be:

- (a) to administer number portability transactions and to act as a central point for the facilitation and control of all transactions relating to number portability between operators;
- (b) to validate and provide an audit trail of all number portability transactions between operators; and
- (c) to serve as a central repository for all relevant information relating to all numbers that have been ported from one operator to another operator pursuant to the OSS, including but not limited to the operator currently serving such ported number(s).

Notwithstanding paragraph (a) to paragraph (c) above, the NNPDB shall not act as an online routing database.

The architecture of the NNPDB shall be as follows:

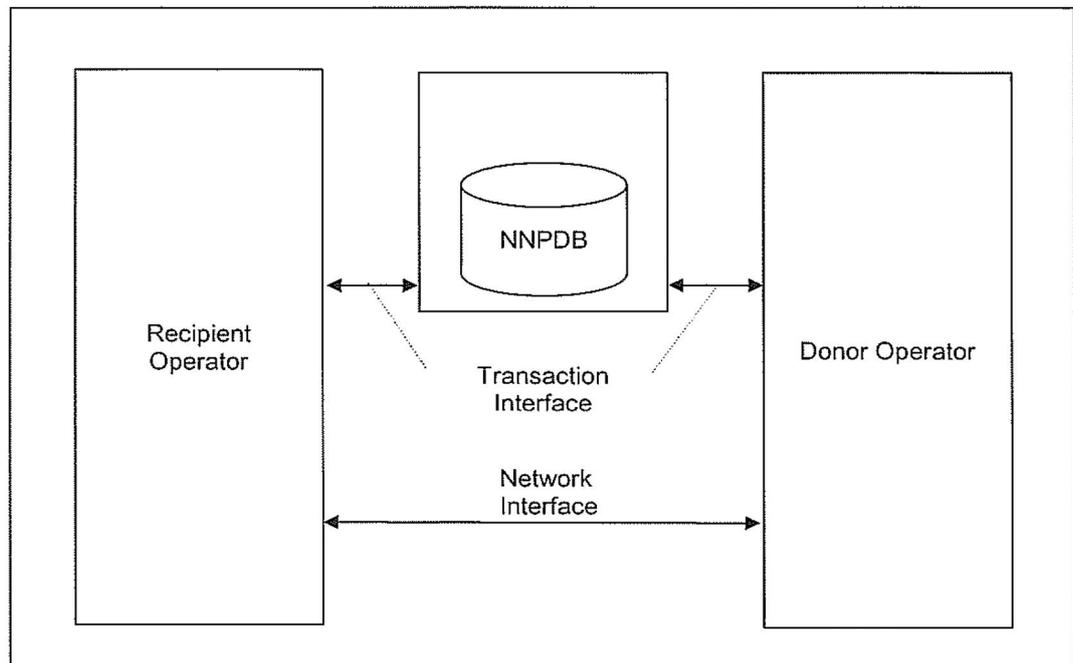


Figure 1: NNPDB Architecture

(d) NNPDB's functions shall include:

- (i) administering transactions between the RO and the DO and validate such transactions in line with this OSS;
- (ii) validating received messages, i.e. the validation failed, or a Message was received out of sequence, and return an error Message to the sender with an applicable error code;
- (iii) forwarding the Messages received outside of porting Hours, but only institute timer values during porting hours;
- (iv) managing messages regarding activation, deactivation and the update of routing tables during NST and reject all other messages during the NST with an error message;
- (v) providing the facility to enable a download of the entire database or a delta from a start date to an end date; and
- (vi) forwarding all messages within one minute of receipt.

6 PORTING PROCESS

- (1) The porting process will entail the following:
 - (a) There are no restrictions on a Subscriber requesting to port outside of Business Hours. However, the communication between the DO, RO and the NNPDB to engage on the Port Request and Activation, Port Cancellation, Port Reversal and Return to Block Operator processes can only be invoked and completed during Business Hours.
 - (b) Messages pertaining to activation, deactivation and the update of routing tables shall be handled during NST. All other Messages will be queued by the NNPDB during the NST. Such Messages should only be processed during Business Hours.
 - (c) The Subscriber must always retain the ability to make and receive calls. The Subscriber must be active on the RO before being deactivated on the DO.
 - (d) The NNPDB Download and Emergency Notification processes can be invoked during any time when the NNPDB is available.

- (2) Port Request and Activation
 - (a) Subscribers are not allowed to port again within one (1) month of a successful port, measured from the Porting Time. After one (1) month has lapsed, a new port can be requested, and a new Port Request and Activation process can be initiated.
 - (b) Where a subscriber has a certain status with the DO, i.e. prepaid or post-paid, and a subscriber wants to have a different status with the recipient, the Port Request should indicate the status of the subscriber at the DO. The Subscriber will be activated on the RO with the requested status subject to the approval of the Port Request.

- (3) Port Cancellation
 - (a) Once a port order has been agreed to, the port can only be cancelled if there is agreement between the RO and the

Subscriber. Subscriber shall cancel a port request on notification to the RO.

- (b) The RO shall send a cancellation message to the DO through the NNPDB.
 - (c) If a Port Notification was not sent at the time of cancellation, the Port Notification which should have been issued to confirm the port can be used to cancel the port.
 - (d) NNPDB shall record the cancellation of port.
 - (e) Port cancellations are subject to time limitations permitted for cancelling a port.
- (4) Port Reversal
- (a) If a port has been deemed an invalid port and where the Subscriber did not request to port, the port must be reversed immediately.
 - (b) RO must send a reversal message to the DO through NNPDB.
 - (c) DO must accept the entire reversal request.
 - (d) Port Reversal may only be done within the Port Reversal Limit.
 - (e) The reversal can only be done based on a Port Activated message and the number(s) to be reversed must have all been ported (activated).
 - (f) Only a full reversal activation is allowed, i.e. all the numbers requested in the Reversal Request must be activated.
- (5) Return to Block Operator
- (a) Where the RO de-activates a ported number or, number block on its network, the RO must return the ported number or, number block to the block operator.
 - (b) Once a ported number or, number block is de-activated, the recipient operator must send a number return message to the NNPDB.

- (c) The NNPDB must remove the number or, number block from the ported number list in the NNPDB on receipt of the number or, number block return message.
- (d) The NNPDB must send a general port notification to the authorised users of the NNPDB as soon as a ported number has been returned to the block operator.
- (e) The block operator must quarantine the ported number in accordance with the Number Portability Regulations.

(6) NNPDB Download

- (a) NNPDB download shall be done if a connected party requires a complete download or requires to synchronise a local database.
- (b) The download information shall only be used in the context of Number Portability.

(7) Emergency Notification

- (a) Whenever a DO or RO is experiencing technical problems, it must communicate the technical problem to the NNPDB. The NNPDB will inform all relevant parties of the operator experiencing the problem.
- (b) All technical problems will be labelled as either transmission, inability to update call routing tables or, as authorisation problems.
- (c) The NNPDB will queue all messages to the party experiencing a transmission problem. Once a transmission problem has been resolved, the NNPDB will send all queued messages, maintaining the order of the messages.
- (d) When DO or RO experiences technical problems, the NNPDB will suspend all active Port Notification Time timers for the connected Party.
- (e) Where an operator is experiencing any technical problem, which will impact on its ability to perform porting functions during

porting hours, the PST of the operator shall, notify the PSTs of all other operators through suitable contact media. Such notification shall include details of the nature of the technical problem and the estimated time during which porting will be affected.

- (f) When the technical problem has been resolved, such party will communicate the Restore Notification to the NNPDB immediately.

8. DISPUTE RESOLUTION

- (1) Should any dispute arise between connected parties in connection with the matters listed in section 8(2) of this OSS, the dispute shall be referred to the CCC, subject to the proviso that the connected party shall, within fourteen (14) days of the occurrence of such a dispute attempt to resolve such dispute through meetings between the relevant connected parties prior to referring the dispute for resolution by the CCC.
- (2) Any dispute relating to this OSS and the Number Portability Regulations, including but not limited to the below matters, shall be referred to the CCC for resolution if the Operator(s) /and the connected party(ies) fail to resolve the dispute:
 - (a) the porting of any number;
 - (b) the refusal by the DO to authorise a port;
 - (c) any provision of this OSS, or any of its annexures, or the Number Portability Regulations; or
 - (d) which relates in any way to any matter affecting any Operator(s) or connected parties in relation to Number Portability.

9. MANAGED PORTS

- (1) Depending on the size and nature of the port request, numbers shall be ported according to either a Managed Process or an Individual Process.

- (2) A Managed Process shall be used to port a block or a list of single numbers or a sequential single range of numbers where the Individual Process has not been requested:
 - (a) to port number ranges; or
 - (b) to port groups of associated individual numbers that in the joint opinion of the RO and the DO are of sufficient complexity to require the management of the porting process, including but not limited to multiple numbers provided through the switchboards of a single Subscriber that service less than one thousand (1000) individual numbers.
- (3) The use of a Managed Process pursuant to section 2 may be requested by the Subscriber, the DO, or the RO. Where so requested, the Managed Process must be used unless it is not feasible to do so in such circumstances, and this is agreed by the RO, the DO, and the Subscriber.
- (4) Where the Managed Process is used, a project team must be appointed to oversee the porting process consisting of:
 - (a) at least one representative from the RO, appointed by the RO;
 - (b) at least one representative from the DO, appointed by the DO;
 - (c) the Subscriber as required by the RO or the DO, and, or to the extent desired by the Subscriber; and
 - (d) the vendor, to the extent required by the other members of the project team.
- (5) All the parties to the project team must agree in writing to a project plan which specifies the terms and conditions upon which the Managed Process is to be implemented for that specific port request, including but not limited to details of the following:
 - (a) the synchronisation of the process of activating a ported number on the RO's network and the deactivation of such number on the DO's network, to ensure that the service to the Subscriber is uninterrupted during the porting process, or if such interruption is unavoidable due to technical limitations, then it shall be of the shortest possible duration;

- (b) the time frames for completing the Managed Process in line with section 5(a) of this OSS, shall only be changed under extenuating circumstances, subject to the Subscriber's written consent; and
 - (c) The RO shall initiate a Port Activation transaction upon the completion of the physical porting of numbers pursuant to a Managed Process.
- (6) The RO shall lead the project team. Any disputes that cannot be resolved by agreement within the project team, must be referred to the Authority.
- (7) The Individual Process will be used to port one or more individual numbers, or a single range of numbers where the Managed Process has not been requested and agreed by all parties.

10 Port Rejection

- (1) A Port Request may be refused because:
- (a) the information required to initiate a Port Request as contemplated in section 3 of the FSS, is not provided or is incorrect;
 - (b) the Subscriber did not respond to the OTP as contemplated in section 4(1) of the FSS;
 - (c) the number or number block is not valid on the DO's network;
 - (d) the number is excluded from number portability, as contemplated in this OSS;
 - (e) the account number is invalid (post-pay only);
 - (f) the classification of the account does not match, example a request is made under the pre-pay procedure for a post-pay account;
 - (g) the account was in arrears and/or suspended at the time of the port request;
 - (h) the number is already subject to a porting process;
 - (i) the number has already been ported within one (1) calendar month; and,
 - (j) the geographic number or number block is being ported to an area not within the geographic boundary (ONN) associated with the number or, number block.
- (2) Having received a response from the DO in relation to a Port Request, indicating that the Subscriber cannot port, the RO shall inform the

Subscriber of the reasons for the rejection. Should the Subscriber and the RO believe that the reasons provided are incorrect and not in line with section 5 of the FSS, the RO shall follow the Port Authorisation Problem Escalation Path 1, indicated in section 10(5) below.

- (3) Should the Subscriber or the RO seek to dispute the reasons provided by the DO, the RO shall follow the Port Authorisation Problem Escalation Path 2, indicated in section 10(6) below.
- (4) In the event where a DO does not respond to a request from a RO, the RO's PST shall attempt to resolve the delay in the response. The RO's PST shall contact the NNPDB and subsequently the DO's PST to resolve the delay.
- (5) Port Authorisation Escalation Path 1:
 - (a) Having received a notification from the NNPDB indicating that the DO refuses the port for a reason(s) other than those listed in section 10(1) above, and the RO or the Subscriber believes such reasons are incorrect, the RO may manually escalate the refusal by contacting the DO's PST at the contact numbers listed in the Operator Contact List.
 - (b) Should the DO's PST fail to resolve the problem within one (1) working day of receiving the request from the RO, the RO may escalate the issue to the Team Leader of the PST at the contact numbers in the Operator Contact List.
- (6) Port Authorisation Escalation Path 2:
 - (a) Having received a notification from the NNPDB that the DO refuses the port for the reason(s) listed in section 10(1) and the Subscriber disputes such reason(s), the RO may manually escalate the refusal by contacting the DO's PST to resolve the issue. The PST can be contacted at the contact numbers in the Operator Contact List.
 - (b) Should the DO's PST fail to resolve the problem within one (1) day of receiving the request from the RO, the RO may escalate the issue to the CCC for resolution.

- (7) Dispute Resolution Procedures: Where no response is received, or the issue is not resolved to the satisfaction of the aggrieved party having followed the above Escalation Procedures, the aggrieved party should refer the dispute for resolution by following the process contemplated in section 8 of this OSS within fourteen (14) days.

SECTION B**GEOGRAPHIC AND NON-GEOGRAPHIC NUMBER PORTING**

1. Geographic and non-geographic number porting communication between connected parties and the NNPDB to effect Port Request and Activation, Port Cancellation, Port Reversal and Return to Block Operator processes shall be at the following times (hereinafter referred to as "Business Hours"):
 - (1) Monday to Friday: 9:00 – 17:00
 - (2) Saturday: 9:00 – 13:00

2. The Port Request and Activation, Port Cancellation, Port Reversal and Return to Block Operator processes will not be handled on the following days:
 - (1) Sundays; and
 - (2) Public Holidays.

3. Activation and deactivation on the network and updating of routing tables shall only take place during NST on all days except Public Holidays. Activation and deactivation on the network and updating of routing tables due to a Port Reversal process can also take place during normal Business Hours.

4. The NST for GNP and NNP are as follows:

17H00 to 18H00

5. Notification of activation on the RO's network of all individual numbers that have been ported on the same day must take place at NST.

6. Porting can be requested to take place as soon as possible or at a date not later than one calendar month after the RO sends the Port Notification in the case of individual ports.

7. Porting can be requested to take place as soon as possible or at a date not later than two calendar months after the RO sends the Port Notification in the case of managed ports.

8. In the event of a Change of Installation Address Process, the:
 - (1) Subscriber must notify the RO at time of the port request or after a port has already taken place.
 - (2) RO must verify the proposed address complies with the NDC boundaries.

- (3) Change of Installation Address Process is independent of the Managed or Individual Processes.
9. A Change of Installation Address request may only be rejected if the proposed installation address is outside of the geographic area associated with that number by the Block Operator.
10. Geographic and non-geographic transactions must be defined in terms of:
- (1) Purpose of transaction: Describes the purpose for which the transaction is used;
 - (2) Originator: Identifies which party starts the transaction flow;
 - (3) Intended for: Identifies which party the transaction flow is intended for;
 - (4) Time constraints: Describes any time constraints on when it is allowed to initiate the transaction, or which prescribe the timeframe in which an action or response is required;
 - (5) Individual or Managed Process: Identifies whether this transaction is applicable to the managed or individual Processes or both; and
 - (6) Information inherent in transaction: Describes what high-level information is contained in the transaction.
11. The RO will assign a unique Port Identification Number to each port request at the time when such a new request is generated. The port identification number will be used thereafter as the unique identifier of that port in all subsequent transactions.
12. All transactions will be acknowledged by the recipient of the message via the SOAP or WebGUI interface.
13. The date and time in the message header will be considered the time that any porting process as contemplated in section 7 of this OSS, took place.
14. The GNP Port Request, Port validation and Activation processes entail the following separate processes:
- (1) Port Request,
 - (2) Port Cancellation;
 - (3) Port Reversal;

- (4) Change of Installation Address;
- (5) Return to Block Operator;
- (6) NNPDB Download; and
- (7) Emergency Notification.

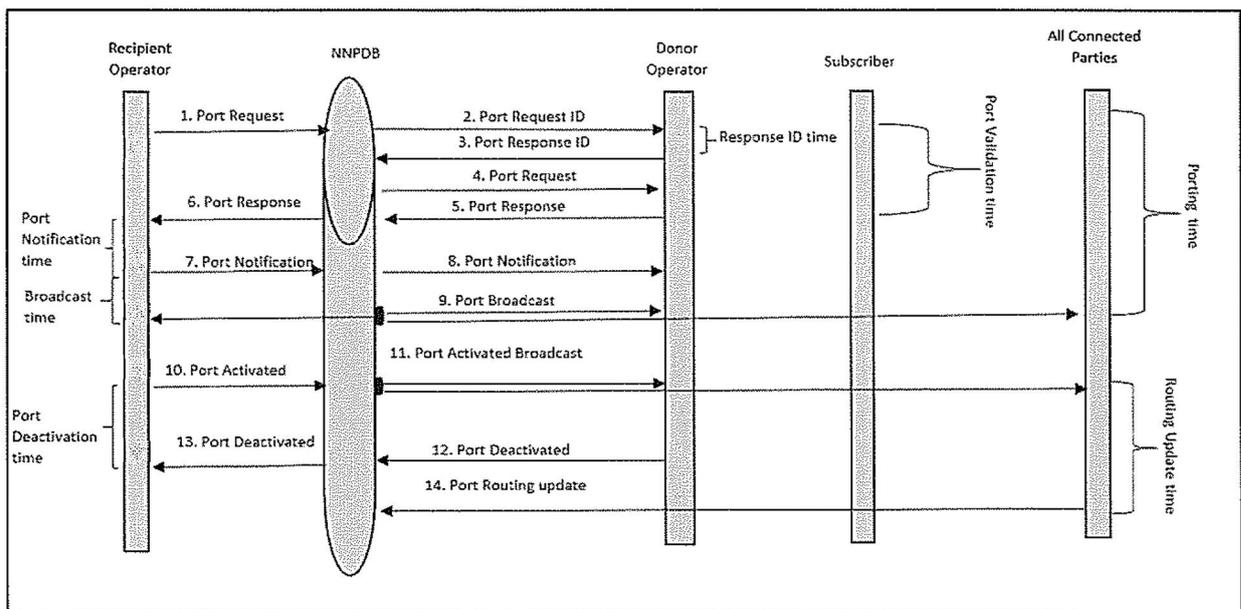


Figure 2: Port Request, Port validation and Activation

15. Port Request - Message 1

- (1) The RO must send a Port Request Message to the NNPDB. The Port Request must in addition to the information as mandated by section 3 of the FSS, indicate:
- (a) Nature of port request (Individual / Managed Process);
 - (b) a contact person and contact details from the RO who will co-ordinate the porting in case of Managed Process; and
 - (c) the Transaction ID of the relevant Change of Installation Address Response from the Block Operator confirming the address validity must be supplied in the case where a Change of Installation Address request was also submitted.

- (2) The NNPDB must then verify if the number(s) or number block(s) has\have been previously ported.
- (3) A Port Request as submitted by the RO may include multiple numbers or Number blocks, but these shall:
- (a) belong to the same account (Post-paid or corporate), or to the same Subscriber (Prepaid);
 - (b) belong to the same DO.
- (4) Should a Port Request contain multiple numbers or number blocks not all belonging to the same DO, the NNPDB will send the Error Message to the RO with an applicable error reason. The process will terminate, and the RO shall rectify the error and initiate a new Port Request.

16. Port Request SPID - Message 2

- (1) The NNPDB forwards the Port Request SPID Message to the DO.
- (2) The NNPDB shall forward the Port Request SPID Message to the DO currently serving the Subscriber.

17. Port Response SPID - Message 3

- (1) A Port Response SPID Message is sent to the NNPDB within the Response SPID Time indicating the DO of the Subscriber requesting a port. The DO will send the Port Response SPID Message to the NNPDB.
- (2) Should the number(s) or number block(s) not belong to the DO, the DO will still send Port Response SPID Message to the NNPDB indicating the error code and error explanation (MSISDN is not valid on the DO Network). The NNPDB will continue the process by sending Message 8 including the rejection code (The MSISDN is not a valid number on the DO's network). The RO and DO must escalate via the Notification and Escalation process.
- (3) The DO must include in its response Unique port ID.

18. Port Request - Message 4

The NNPDB forwards the Port Request Message to the DO as indicated in the SPID.

19. Port Response – Message 5

- (1) Subject to the confirmations as contemplated in section 3 of the FSS, The DO will immediately send a Port Response Message to the NNPDB.
- (2) A Port Response shall happen within the Port Validation Time.
- (3) The DO must include the following information to the RO:
 - (a) Flag, per number or number range, indicating acceptance or rejection of the numbers/range for the port, set to "1". To reject porting of a number or number range, the DO sends the response with the included flag set to "0".
 - (b) Reason(s) for rejection, or if accepted, whether there is a move between Managed Process and Individual Process. If there is a move between Managed and Individual Process, then the NNPDB must adjust the timers appropriately.
 - (c) If the Managed Process was requested by the RO or if there is a move from Individual Process to the Managed Process, the contact details of the responsible person from the DO.
 - (d) In the event of multiple Numbers in a Port Request, the Port Response Message to the NNPDB will indicate a Code for each individual Number(s) number blocks. The Code will either approve the Port Request or provide a valid rejection code for every Mobile Number that is rejected.
- (4) Should proof be required for the Port Request, the DO PST must contact the RO PST. An agreement must be reached on when and how the proof should be provided.

20. Port Response - Message 6

- (1) The NNPDB forwards the Port Response Message to the RO.
- (2) Should the DO reject the Port Request the Port Request and Activation Process terminates.

21. Port Notification – Message 7

- (1) The RO sends a Port Notification Message to the NNPDB either ordering or declining the port and to indicate when a physical port will take place (The RO may decline the Port in the Port Notification Message if the RO no longer wishes to acquire the customer.)
- (2) The RO must send the Port Notification Message within the Port Notification Time. Failing this, the NNPDB will send the Error Message with an error code to both the RO and DO indicating that the process has been terminated.
- (3) Should the RO decide not to order the port for the Subscriber, it shall immediately send a Port Notification Message declining the port.
- (4) Should the RO send a Port Notification Message declining the Port, the process continues with Message 8 and is then terminated.

22. Port Notification – Message 8

- (1) Should the Port Notification Message indicate that the RO declines the port, the NNPDB forwards the Port Notification Message to the DO and the port process is terminated. The Number(s) of number blocks will then become available for another Port Request.
- (2) Should the Port Notification Message indicate that the RO orders the port, the NNPDB forwards the Port Notification to the DO and the process continues.

23. Port Broadcast – Message 9

- (1) The NNPDB shall forward the Port Broadcast message to all connected parties.
- (2) The NNPDB shall send the Port Broadcast message within the Port Broadcast time.

24. Port Activated – Message 10

- (1) The RO must activate the Subscriber on its network and update its routing tables accordingly.
- (2) During the NST of the requested Porting Date, the RO sends a Port Activation Message to the NNPDB confirming that the subscriber has been activated on the RO's network and its routing tables have been updated.
- (3) The Subscriber will also be active on the DO's network.
- (4) All Port Activated messages received by the NNPDB outside the NST will be queued and processed during the next available NST
- (5) Should the NNPDB not receive a Port Activated message within the Deferred Termination Time, the NNPDB will send an Error Message with an error reason to the RO and DO. The process is then terminated. Should a Port Activated message be sent after the Deferred Termination Time, the NNPDB will return an Error Message indicating an out of synch Message.

25. Port Activated Broadcast – Message 11

- (1) The NNPDB sends the Port Activated Broadcast Message to all parties connected to the NNPDB after receipt of the Port Activation Message from the RO.
- (2) From this time forward the Subscriber is ported.

- (3) On receiving the Port Activated Broadcast Message, the DO must deactivate the Subscriber from its network and update its routing tables and within the Port Deactivation Time.
- (4) On receiving the Port Activated Broadcast Message, all operators involved in Direct Routing shall update their routing tables accordingly. This update must be completed within the Routing Update Time.

26. Port Deactivated – Message 12

Once the DO has deactivated the Mobile Number(s) and updated its routing tables, the DO sends a Port Deactivated Message to the NNPDB within the Port Deactivation Time.

27. Port Deactivated – Message 13

Subject to receipt of the Port Deactivated Message from the DO, the NNPDB shall forward the Port Deactivated Message to the RO.

28. Port Routing Updated - Message 14

- (1) All other connected parties must send a Port Routing Updated Message within the Routing Update Time to the NNPDB confirming that they have updated their routing tables.
- (2) The NNPDB will verify that all connected parties have sent this Message.
- (3) Port Routing Updated Message is not dependant on the Port Deactivated Message and the NNPDB will receive these messages in any sequence.

PORT CANCELLATIONS

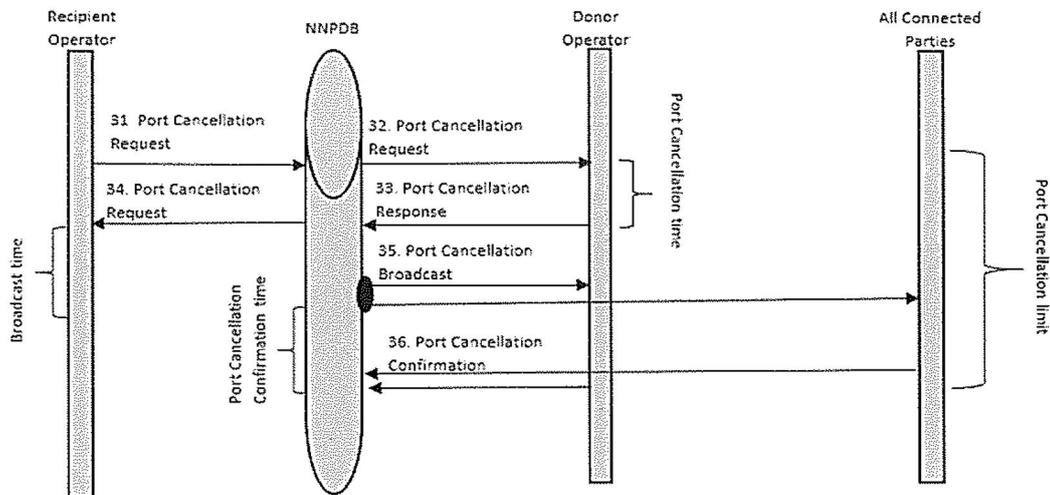


Figure 3: Port Cancellation

29. Port Cancellation Request - Message 21

- (1) The Cancellation Process can only be initiated after the RO has sent the Port Notification (Message 7) and before a Network Operator has sent Port Activated (Message 9) within the Port Cancellation limit.
- (2) The RO sends a Port Cancellation Request Message to the NNPDB.
- (3) For the Managed Process, communication of the cancellation must be provided to the project team, but the transaction will still be processed by the RO through the NNPDB.

30. Port Cancellation Request - Message 22

The NNPDB forwards the Port Cancellation Request Message to the DO. The DO is indicated by the same SPID as in the original Port Request.

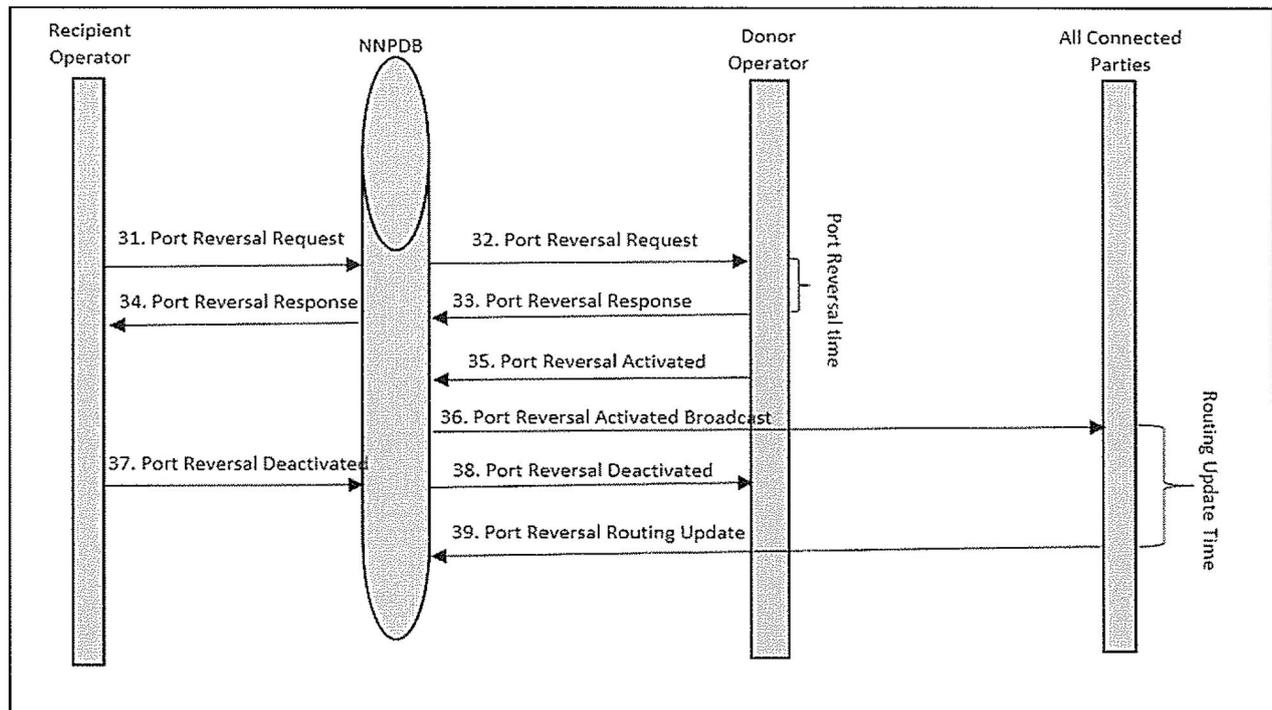


Figure 4: Port Reversals

31. Port Reversal Request - Message 31

- (1) The RO sends a Port Reversal Request Message to the NNPDB.
- (2) The Port Reversal Request can only be initiated within the Port Reversal Limit.
- (3) Should the Port Reversal Request be sent before or after the Port Reversal Limit, the Port Reversal Request will be rejected by the NNPDB.

32. Port Reversal Request - Message 32

The NNPDB forwards the Port Reversal Request Message to the DO.

33. Port Reversal Response - Message 33

The DO validates the Port Reversal Request in line with Regulation (6) of the FSS then sends a Port Reversal Response Message, to the NNPDB within the Port Reversal Time authorising the reversal of the port.

34. Port Reversal Response - Message 34

The NNPDB forwards the Port Reversal Response Message to the RO.

35. Port Reversal Activated - Message 35

- (1) The DO must have the Subscriber active on its network at Reversal Time and routing tables updated
- (2) The DO shall send a Port Reversal Activated Message to the NNPDB confirming that the Subscriber has now once again been activated on the DO's network and its routing tables have been updated.
- (3) The Subscriber will also be active on the RO.
- (4) Should the NNPDB not receive the Port Reversal Activated message within the Port Reversal Limit, the NNPDB will send an Error Message with an error reason to the RO and DO. Should a Port Reversal Activated message be sent after the Port Reversal Limit, the NNPDB will return an Error Message indicating an out of synch Message.

36. Port Reversal Activated Broadcast - Message 36

- (1) The NNPDB sends the Port Reversal Activated Broadcast Message to all connected parties.
- (2) On receipt of the Port Reversal Activated Message, the NNPDB shall return the Mobile Number(s) to its/ their previous status.

- (3) From this time forward the port is reversed and the DO Network provides services to the Subscriber.
- (4) On reception of the Port Reversal Activated Broadcast Message, the RO network deactivates the Subscriber from its network and update its routing tables.
- (5) On reception of the Port Reversal Activated Broadcast Message, all connected parties shall update their routing tables accordingly. This update must be completed within the Routing Update Time.

37. Port Reversal Deactivated - Message 37

- (1) On receipt of the Port Reversal Broadcast, the RO deactivates the Subscriber in the RO's Network and updates its routing tables. This must be carried out within Port Deactivation Time.
- (2) The RO sends a Port Reversal Deactivation Message to the NNPDB confirming that the Subscriber has been deactivated on the RO and has updated its routing tables.

38. Port Reversal Deactivated - Message 38

The NNPDB forwards the Port Reversal Deactivation Message to the DO.

39. Port Reversal Routing Updated Message 39

All Connected involved shall send a Port Reversal Routing Updated Message to the NNPDB, within the Routing Update Time, confirming that they have removed the previously ported number from their ported numbers routing table.

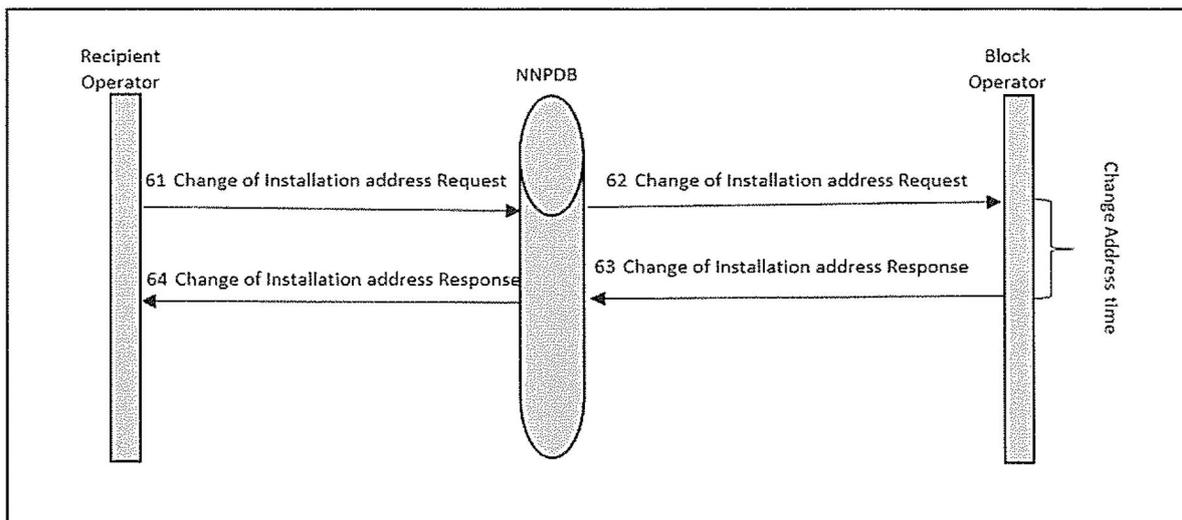


Figure 5: Change of Installation Address (GNP)

40. Change of Installation address Request – Message 61

- (1) This request is only permissible for Geographic Number Porting and shall only be processed during Business Hours.
- (2) The RO sends a Change of Installation address to the NNPDB. The Request shall include SPID, number(s) or number block(s) for which an installation address is to be change and the proposed new installation address.

41. Change of Installation address Request – Message 62

The NNPDB forwards the Change of Installation address Request to the DO.

42. Change of Installation address Response – Message 63

- (1) The Block Operator shall validate that the proposed new address is in compliance with the area associated with the NDC in line with the Numbering Plan Regulations, as amended.
- (2) The Block Operator will respond by either approving or rejecting the Change of Installation Address Request subject to the above validation.
- (3) In the event of a rejection and the RO does not agree with the response, the Escalation Path 1 may be adopted.

43. Change of Installation address Response – Message 64

The NNPDB forwards the Change of Installation address Response to the RO.

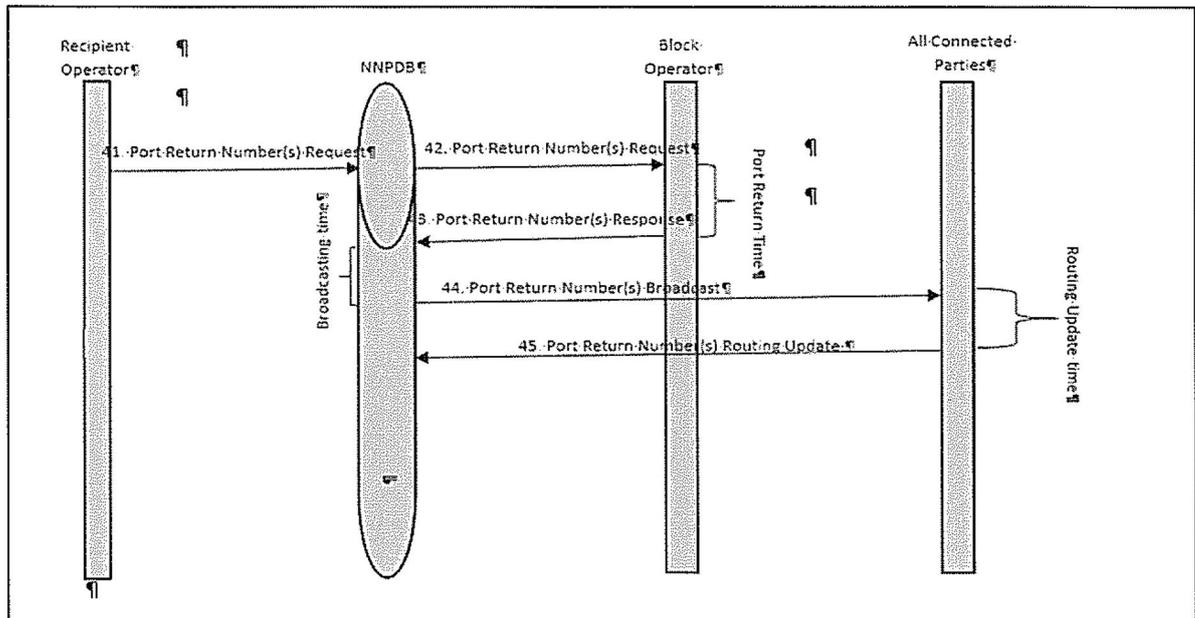


Figure 6: Return to Block Operator

44. Port Return Number Request - Message 41

- (1) Service to Number(s) or Number Block(s) ceased and the Number has been quarantined as per Last Recipient's internal rules.
- (2) The Last RO sends a Port Return Number Request Message to the NNPDB requesting that the Number(s) or Number Block(s) be returned to the Block Operator.
- (3) All Port Return Number Request Messages must only contain Number(s) or Number Block(s) for a single Block Operator.
- (4) The Last RO must delay updating of routing tables until the Port Return Number Broadcast is received.
- (5) Should there be Number(s) or Number Block(s) that belong to more than one Block Operator in a Port Return Number Request Message, the NNPDB will send back an error.

45. Port Return Number Request - Message 42

The NNPDB sends the Port Return Number Request Message to the relevant Block Operator.

46. Port Return Number Response – Message 43

- (1) Upon receipt of the Port Return Number Request Message the Block Operator validates the Number(s) or Number Block(s) and if the request is valid it then updates its routing table.
- (2) The Block Operator then sends a Port Return Number Response (Message 43) to the NNPDB within the Port Return Time confirming the return of the Number(s) or Number Block(s).
- (3) In the unlikely event that a Block Operator receives a Number(s) or Number Block(s) that does not belong to the Block Operator, the Block Operator must manually escalate.

47. Port Return Number Broadcast - Message 44

- (1) The NNPDB sends a Port Return Number Broadcast Message to all connected parties, within the Port Broadcast Time, advising that the Number(s) or Number Block(s) has been returned to the Block Operator.
- (2) All connected parties shall update their routing tables.

48. Port Return Number Routing Update - Message 45

All connected parties shall send a Port Return Number Routing Updated Message to the NNPDB, within the Routing Update Time, confirming that the previously ported number was removed from their ported numbers routing table.

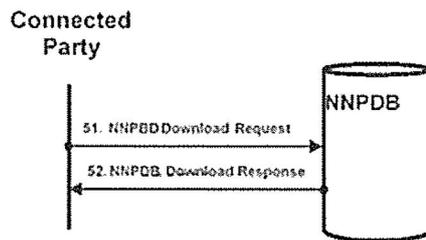


Figure 7: NNPDB Download Process

49. **NNPDB Download Request - Message 51**

The connected party requiring the download sends the NNPDB Download Request to the NNPDB indicating if it is a full download or a delta download. In the case of a delta download, the start and end date and time must also be included. The connected party must also indicate the media type for the download to be provided (FTP, CD etc).

50. **NNPDB Download Response - Message 52**

The NNPDB will notify the connected party that the request has been received and will notify the connected party when and where the information can be accessed.

51. **Emergency Notification - Message 81**

- (1) The DO and/or RO shall send a Message to the NNPDB advising of a technical problem or other emergencies which will result in the inability to complete the Port Request and Activation or the Port Reversal Processes.
- (2) The NNPDB will suspend all Port Notification Time timers for the DO and/or RO concerned.

52. **Emergency Notification Broadcast - Message 82**

The NNPDB will broadcast this information to all the connected parties.

53. Restore Notification - Message 83

- (1) The DO and/or RO shall send a Message to the NNPDB advising that the technical problem or other emergencies which has been resolved and the DO and/or RO able to complete the Port Request and Activation or the Port Reversal Processes.
- (2) The NNPDB will continue with all Port Notification Time timers for the DO and/or RO.

54. Restore Notification Broadcast - Message 84

The NNPDB will broadcast this information to all the connected parties.

55. GNP and NNP Port Timers

All timers referred are times during business hours.

NAME	VALUE	DESCRIPTION
Port Validation Time	7 hours	The maximum time between the NNPDB sending the Port Request to the DO and the NNPDB receiving the Port Response from the DO, for a port process.
Deferred Porting Time (Individual Process)	1 calendar month	The maximum deferred porting time. Calculated from when the RO sends the Port Notification.
Deferred Porting Time (Managed Process)	2 calendar months	The maximum deferred porting time. Calculated from when the RO sends the Port Notification.
Deferred Termination Time (Individual Process)	(Deferred Porting Time + 3 days)	Three-day grace period before the NNPDB will terminate a Port Request and Activation process if the Port Activated message did not arrive before the Deferred Porting Time.

NAME	VALUE	DESCRIPTION
Deferred Termination Time (Managed process)	(Deferred Porting Time + 3 days)	Three (3) day grace period before the NNPDB will terminate a Port Request and Activation process if the Port Activated message did not arrive before the Deferred Porting Time.
Network Synchronisation Time	1 hour	Means the hours of low network traffic (17h00 – 18h00 during all days excluding Public Holidays) when the OPERATORS will update their networks to activate and deactivate porting Subscribers.
Port Deactivation Time	1 hour	The amount of time specified to remove a Subscriber from active service on a network. Measured from when the NNPDB sends the Port Activated Broadcast Message 11 or the Port Reversal Activated Broadcast Message 36.
Port Notification Time (Individual Process)	40 hours	The maximum time between the RO receiving the Port Response (Message 6) and the RO sending the Port Notification. NNPDB will terminate the port if this timer is exceeded.
Port Notification Time (Managed Process)	80 hours	The maximum time between the RO receiving the Port Response (Message 6) and the RO sending the Port Notification. NNPDB will terminate the port if this timer is exceeded.
Port Lock Time	1 calendar month	The time where subsequent port request on a number or number range will be rejected
Port Return Time	1 hour	The maximum time between the RO sending the Port Return Number Request (Message 42) and the Block operator sending the Port Return Number Response (Message 43).

NAME	VALUE	DESCRIPTION
Port Reversal Limit	Porting Hours to 1 month	A Port Reversal Request can be issued by the RO during Porting Hours but not more than 1 month after the Porting Time.
Port Reversal Time	16 hours	The maximum time between the NNPDB sending the Port Reversal Request to the DO and the NNPDB receiving the Port Reversal Response from the DO.
Response SPID Time	5 minutes	The maximum time in which the DO responds with the SPID to the NNPDB.
Routing Update Time	1 hour	The maximum time in which all Operators must confirm to the NNPDB that the new call routing has been effected. Measured from when the NNPDB sends the Port Activated Broadcast Message 11, or the Port Reversal Activated Broadcast Message 36, or the Port Number Return Broadcast Message 44. Operators that do not route directly must respond that they have noted the update.
Address Change Time	22 hours	The maximum time between the Block Operator receiving an Address Change request and responding to that request.

56. General Message Header

This Message Header will be included in all Messages between the NNPDB and the connected parties.

MESSAGE NAME / FIELD	TYPE	COMMENT
Reference / Porting ID	M	YYYYMMDD+hhmmss+SPID+DN+ SeqNr. Populated by the party that triggers the first Message in the process and used throughout that porting process. DN is the first DN in the range or list of numbers in the Port Request. SeqNr is an unique number populated by the SOAP\ WebGUI interface.
Transaction Time	M	Time of sending the Message (14-digit time stamp, i.e. YYYYMMDDhhmmss.
Message ID	M	Message Type (OSS Message Number).
Sender of Message	M	SPID of the party sending the Message.
Receiver of Message	M	SPID of the party receiving the Message.
Port Application Form ID	O	For Internal Use Only.

Note: The originator of a message will populate the Receiver of Message field with the SPID of the NNPDB. The NNPDB will replace the Receiver of Message field with the SPID of the destination of the message.

Note: The Header shall always be present for messages. For the NNPDB Download Process and the Emergency Notification Process any dummy DN can be used.

(1) Port Requests and Activation

1. PORT REQUEST	TYPE	COMMENT
Recipient Network Routing Label	M	Routing Label (D000, D007).
Number (n) of DN Ranges	M	Number up to n.
DNfrom 1 (DN)	M	International format 27+NDC+SN. For a range, this is the start of the range. For a single number this is the number.
DNto 1 (DN)	O	For a range it is the last number in the range (inclusive). For single number this is blank. International format 27+NDC+SN.
DNfrom 2 (DN)	C	Start of second DN in list, only if first entry is not a range.
DNto 2 (DN)	C	End of second range or blank if second DN is a single number.
↓	C	Repetitive field.
DNfrom n (DN)	C	Repetitive field.
DNto n (DN)	C	Repetitive field.
Account Number	M	Only one Account Nr per Port Request.
Account Holder / Requestor Identification Number	C	Either identification or registration number required.
Pre-paid / Post-paid	O	For DO validation.
Managed / Individual	M	Identification of port process to be used.
Corporate Registration Number	C	Either identification or registration number required.
Contact Person	C	If Managed then M.
Contact Phone Number	C	If Managed then M.
Change of Installation address	C	In case of simultaneous installation address change – Address Change Transaction ID required.
Comment 1	C	In case additional information is required.
Comment 2	O	In case additional information is required.

2. PORT REQUEST	TYPE	COMMENT
Spid		
Number (n) of DN Ranges	M	
DNfrom 1	M	See comment in message 1.
DNto 1	C	See comment in message 1.
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.

3. PORT RESPONSE	TYPE	COMMENT
Spid		
SPID	C	Id for the SP currently 'owning' the Subscriber.
Error Code	C	

4. PORT REQUEST	TYPE	COMMENT
<i>Same as Message 1</i>		

5. PORT RESPONSE	TYPE	COMMENT
Number (n) of DN Ranges	M	Number of original ranges requested.
Number (m) of Accepted DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
Include Flag 1	M	Code to indicate Flag value 1 indicate request for DN Range 1 is authorised. Flag value 0 indicates that the request for DN Range 1 is rejected.
Reason Code 1	M	Reject Reason or Accept and move to Managed/Individual
RICA flag 1	O	Flag to indicate if the DO has submitted all the information as required by the

5. PORT RESPONSE	TYPE	COMMENT
		Regulation for Interception of Communications Act, 2002 (Act No. 70 of 2002) ("RICA").
↓	C	Repetitive field.
DNfrom n	C	
DNto n	C	
Include Flag n	C	Code to indicate Flag value 1 indicates that the request for DN range n is authorised. Flag value 0 indicates that the request for DN range n is rejected.
Reason Code n	C	Reject Reason or Accept and move to Managed/Individual.
RICA flag n	O	Flag to indicate if the DO has submitted the information as required by RICA.
Contact Person	C	If Managed then M.
Contact Phone Number	C	If Managed then M.
DO	M	Donor Operator.

6. PORT RESPONSE	TYPE	COMMENT
<i>Same as Message 5</i>		

7. PORT NOTIFICATION	TYPE	COMMENT
Number (n) of DN Ranges	M	Number of original requested.
Number (o) of DN Ranges ordered	M	
DNfrom 1	M	
DNto 1	C	
Include Flag 1	C	Flag value 1 indicates that the DN Range is ordered. Flag value 0 indicates that the DN Range is declined.

7. PORT NOTIFICATION	TYPE	COMMENT
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.
Include Flag n	C	Flag value 1 indicates that the DN Range is ordered. Flag value 0 indicates that the DN Range is declined.
Port Date/Time	M	Indicate date and time of port.
Comment 1	M	In case additional information is required.
Comment 2	O	In case additional information is required.

8. PORT NOTIFICATION	TYPE	COMMENT
<i>Same as Message 7</i>		

9. PORT ACTIVATED	TYPE	COMMENT
Number (n) of DN Ranges	M	Number of original requested.
Number (o) of DN Ranges ordered	M	
DNfrom 1	M	
DNto 1	M	
Include Flag 1	C	Flag value 1 indicates that the DN Range is activated. Flag value 0 indicates that the DN Range is not activated.
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.
Include Flag n	C	Flag value 1 indicates that the DN Range is activated.

9. PORT ACTIVATED	TYPE	COMMENT
		Flag value 0 indicates that the DN Range is not activated.

10. PORT ACTIVATED BROADCAST	TYPE	COMMENT
DO	M	DO SPID. Must be inserted by the NNPDB.
RO Routing Label	M	Routing Label (D000, D007). Must be inserted by the NNPDB.
Number (o) of DN Ranges	M	Number of activated DN Ranges - Consolidated.
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom o	C	Repetitive field.
DNto o	C	Repetitive field.

11. PORT DEACTIVATED	TYPE	COMMENT
Number (o) of DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom o	C	Repetitive field.
DNto o	C	Repetitive field.

12. PORT DEACTIVATED	TYPE	COMMENT
<i>Same as Message 11</i>		

13. PORT ROUTING UPDATED	TYPE	COMMENT
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Number (o) of DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom o	C	Repetitive field.
DNto o	C	Repetitive field.

ADDITIONAL MESSAGES		
<i>Messages 14 – 20 are not used but reserved for future use.</i>		

(2) Port Cancellation Process

21. PORT CANCELLATION REQUEST	TYPE	COMMENT
Number (n) of DN Ranges	M	Number of original requested.
Number (o) of DN Ranges ordered	M	Total number of DN Ranges ordered.
Number (p) of DN Ranges cancelled	M	Total number of all DN Ranges cancelled.
DNfrom 1	M	
DNto 1	C	
Include Flag 1	M	Flag value 1 indicates that the DN Range stays ordered. Flag value 0 indicates that the DN Range is cancelled.
↓	M	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.
Include Flag n	M	Flag value 1 indicates that the DN stays ordered. Flag value 0 indicate DN is cancelled

21. PORT CANCELLATION REQUEST	TYPE	COMMENT
Port Cancellation Reason Code	M	For future usage (e.g. reporting issues).
Port Cancellation Reason Explanation	O	Free text (future usage).

22. PORT CANCELLATION REQUEST	TYPE	COMMENT
<i>Same as Message 21</i>		

ADDITIONAL MESSAGES		
<i>Messages 23 – 30 are not used but reserved for future use.</i>		

(3) Port Reversal Process

31. PORT REVERSAL REQUEST	TYPE	COMMENT
Number (o) of DN Ranges	M	Same number as DN Range in Port Activated Broadcast message.
Number (r) of DN Range to reverse	M	
DNfrom 1	M	
DNto 1	C	
Reversal Flag 1	M	Flag value 1 indicates that the DN Range is to be reversed. Flag value 0 indicates that the DN Range is not to be reversed.
↓	M	Repetitive field.
DNfrom o	C	Repetitive field.
DNto o	C	Repetitive field.

31. PORT REVERSAL REQUEST	TYPE	COMMENT
Reversal Flag o	M	Flag value 1 indicates that the DN is to be reversed. Flag value 0 indicate DN is not to be reversed.
Port Reversal Reason Code	M	Ported in Error and invalid port
Port Reversal Reason Explanation	O	Free text, 200 bytes (explanation if the code is other).

32. PORT REVERSAL REQUEST	TYPE	COMMENT
<i>Same as Message 31</i>		

33. PORT REVERSAL RESPONSE	TYPE	COMMENT
Response	M	Yes / No
Number (o) of DN Ranges	C	Same number as DN Range in Port Activated Broadcast message.
Number (r) of DN Range to reverse	C	
DNfrom 1	M	
DNto 1	C	
Reversal Flag 1	C	Flag value 1 indicates that the DN Range is to be reversed. Flag value 0 indicates that the DN Range is not to be reversed.
↓	C	Repetitive field.
DNfrom o	C	Repetitive field.
DNto o	C	Repetitive field.

33. PORT REVERSAL RESPONSE	TYPE	COMMENT
Reversal Flag o	C	Flag value 1 indicates that the DN is to be reversed. Flag value 0 indicates that the DN is not to be reversed.
Port Reversal Reason Code	O	Description of why the response is not approved.
Port Reversal Reason Explanation	O	Free text, 200 bytes (explanation if the code is other).

34. PORT REVERSAL RESPONSE	TYPE	COMMENT
<i>Same as Message 33</i>		

35. PORT REVERSAL ACTIVATED	TYPE	COMMENT
Number (o) of DN Ranges	M	
Number (r) of DN Range to reverse	M	
DNfrom 1	M	
DNto 1	C	
Reversal Flag 1	M	Flag value 1 indicates that the DN Range is to be reversed. Flag value 0 indicates that the DN Range is not to be reversed.
↓	C	Repetitive field.
DNfrom o	C	Repetitive field.
DNto o	C	Repetitive field.
Reversal Flag o	M	Flag value 1 indicates that the DN is to be reversed.

35. PORT REVERSAL ACTIVATED	TYPE	COMMENT
		Flag value 0 indicates that the DN is not to be reversed.

36. PORT REVERSAL ACTIVATED BROADCAST	TYPE	COMMENT
Recipient Network Operator	M	Recipient Network Operator SPID. Must be inserted by the NNPDB.
Donor Network Routing Label	M	Routing Label (D000, D007). Must be inserted by the NNPDB.
Number (r) of DN Ranges	M	Number of activated DN Ranges - Consolidated.
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom r	C	Repetitive field.
DNto r	C	Repetitive field.

37. PORT REVERSAL DEACTIVATED	TYPE	COMMENT
Number (r) of DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom r	C	Repetitive field.
DNto r	C	Repetitive field.

38. PORT REVERSAL DEACTIVATED	TYPE	COMMENT
<i>Same as Message 37</i>		

39. PORT REVERSAL ROUTING UPDATED	TYPE	COMMENT
Number (r) of DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom r	C	Repetitive field.
DNto r	C	Repetitive field.

ADDITIONAL MESSAGES		
<i>Message 40 are not used but reserved for future use.</i>		

(4) Return to Block Operator Process

41. PORT RETURN NUMBER REQUEST	TYPE	COMMENT
Number (n) of DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.

42. PORT RETURN NUMBER REQUEST	TYPE	COMMENT
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Same as Message 41

43. PORT RETURN NUMBER RESPONSE	TYPE	COMMENT
Number (n) of DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.

44. PORT RETURN NUMBER BROADCAST	TYPE	COMMENT
Number (n) of DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.

45. PORT RETURN NUMBER ROUTING UPDATED	TYPE	COMMENT
Number (n) of DN Ranges	M	
DNfrom 1	M	
DNto 1	C	
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.

ADDITIONAL MESSAGES		
<i>Messages 46 – 50 are not used but reserved for future use.</i>		

(5) NNPDB Download Process

51. DOWNLOAD REQUEST	NNPDB	TYPE	COMMENT
Download type		M	Full or Delta download required.
Start date and time		C	Mandatory if Delta download.
End date and time		C	Mandatory if Delta download .
Media type		M	For example, FTP, CD, or DVD.

52. DOWNLOAD RESPONSE	NNPDB	TYPE	COMMENT
Date and Time		M	
Location/link		C	The link to the actual data if electronic or location where data can be collected.
Contact details		M	Person to be contacted regarding the collection of the data.

ADDITIONAL MESSAGES		
<i>Messages 53 – 80 are not used but reserved for future use.</i>		

(6) Change of Installation Address Request

61. CHANGE OF INSTALLATION ADDRESS REQUEST	TYPE	COMMENT
Number (n) of DN Ranges	M	Number up to n. If ranges are used, then only one range may be specified, ie n=1.
DNfrom 1	M	
DNto 1	C	

61. CHANGE OF INSTALLATION ADDRESS REQUEST	TYPE	COMMENT
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.
Installation address	M	Free text.

62. CHANGE OF INSTALLATION ADDRESS REQUEST	TYPE	COMMENT
<i>Same as Message 61</i>		

63. CHANGE OF INSTALLATION ADDRESS RESPONSE	TYPE	COMMENT
Number (n) of DN Ranges	M	Number up to n.
Number (m) of Accepted DN Ranges		
DNfrom 1	M	
DNto 1	C	
Include Flag 1	M	Flag value 1 indicates Change of Installation Address accepted. Flag value 0 indicates Change of Installation Address rejected.
↓	C	Repetitive field.
DNfrom n	C	Repetitive field.
DNto n	C	Repetitive field.
Include Flag n	M	Flag value 1 indicates Change of Installation Address accepted. Flag value 0 indicates Change of Installation Address rejected.

64. CHANGE OF INSTALLATION ADDRESS RESPONSE	TYPE	COMMENT
<i>Same as Message 63</i>		

(7) Emergency Notification Process

81. EMERGENCY NOTIFICATION	TYPE	COMMENT
Problem Code	M	Routing, Authorisation (CRM) or Transmission.
Problem Code Explanation	M	
Party experiencing problem	M	SPID.

82. EMERGENCY NOTIFICATION BROADCAST	TYPE	COMMENT
Problem Code	M	Routing, Authorisation (CRM) or Transmission.
Problem Code Explanation	M	
Party experiencing problem	M	SPID.

83. RESTORE NOTIFICATION	TYPE	COMMENT
Party restored	M	SPID.

84. RESTORE NOTIFICATION BROADCAST	TYPE	COMMENT
Party restored	M	SPID.

ADDITIONAL MESSAGES		
<i>Messages 85 – 89 are not used but reserved for future use.</i>		

(8) General Messages

98. TIMER VIOLATION MESSAGE	TYPE	COMMENT
Expected Message	M	Message ID.
Time of expiration	M	Time when the timer expires.

99. ERROR MESSAGE	TYPE	COMMENT
Error Code	M	
Error Explanation	M	
Message Type	C	

ADDITIONAL MESSAGES		
<i>Messages 90 – 97 are not used but reserved for future use.</i>		

Geographic Number Portability Ordering System Specification

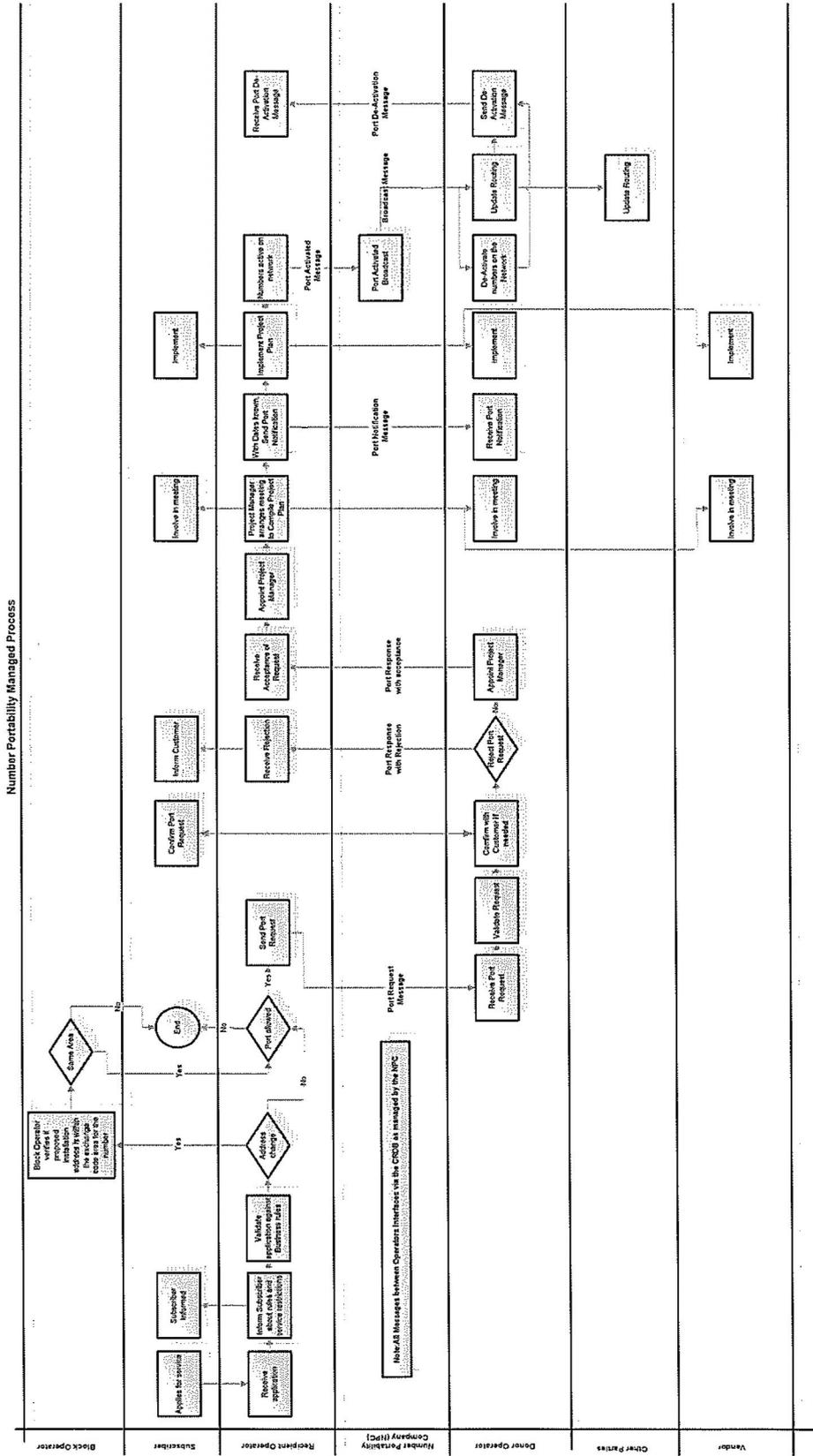


Figure 8: Managed Process Flow

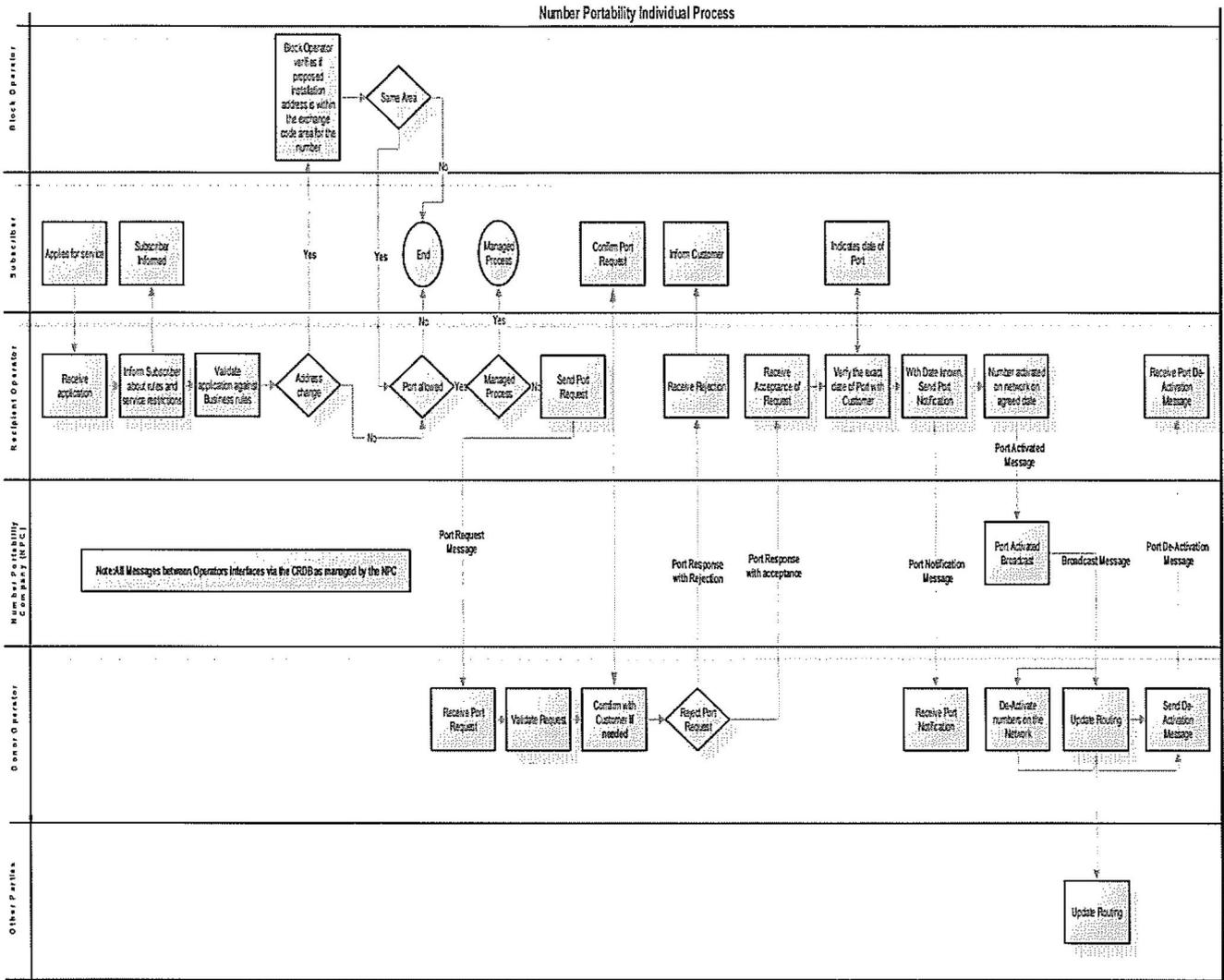


Figure 9: Individual Process Flow

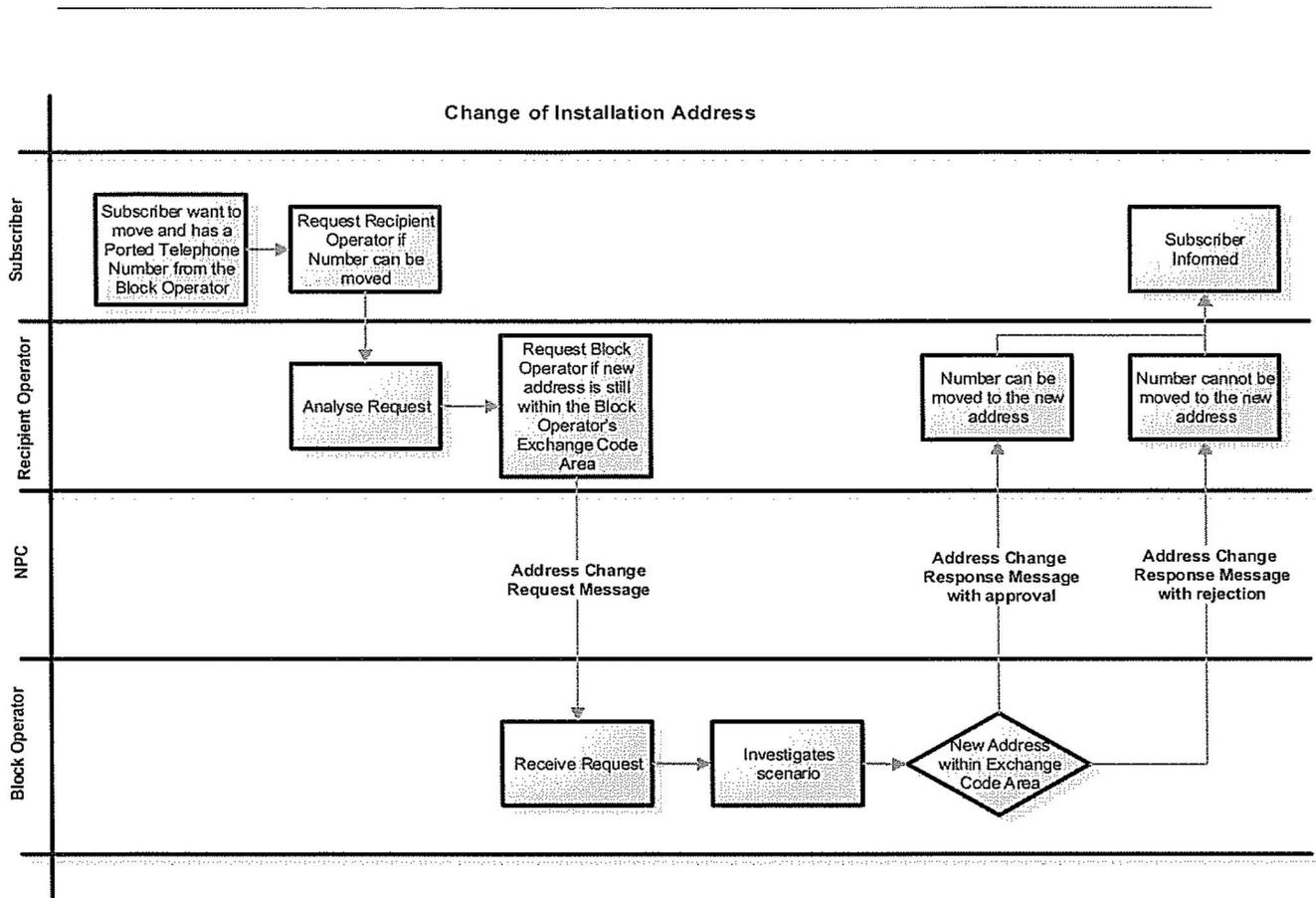


Figure 10: Change of Installation Address Process Flow

SECTION C
MOBILE NUMBER PORTABILITY

1. Mobile Number Porting communication between connected parties and the NNPDB to effect Port Request and Activation, Port Cancellation, Port Reversal and Return to Block Operator processes shall be at the following times (hereinafter referred to as "Business Hours"):

Monday to Friday: 9:00 – 17:00

Saturday: 9:00 – 13:00

2. The Port Request and Activation, Port Cancellation, Port Reversal and Return to Block Operator processes will not be handled on Sundays and Public Holidays.
3. Activation and deactivation on the network and updating of routing tables shall only take place during NST on all days except Public Holidays. The NST, as contemplated above, for MNP will be between 21H00 to 22H00. All other messages will be rejected with an error message. These messages can be resubmitted during business hours.
4. The NNPDB download and Emergency Notification processes can be invoked any time subject to the NNPDB's availability.
5. A DO shall validate a MNP port request from an RO, as sent through the NNPDB, by means of an OTP. The contemplated OTP shall be sent within the business hours.
6. Porting can be requested to take place as soon as possible or at a date not later than thirty-one (31) calendar days after the RO sends the Port Notification.
7. The MNP Processes consist of the following separate processes:
 - (1) Port Request;
 - (2) Port validation and Activation;

- (3) Port Cancellation;
- (4) Port Reversal;
- (5) Return to Block Operator;
- (6) NNPDDB Download; and
- (7) Emergency Notification.

8. The MNP schematic illustrates the processes within the port time and port broadcast respectively. If the DO or the RO receive a Message out of synch with the normal process flow, such Message will be rejected with a general error message including an error code.

Port Request, Port validation and Activation

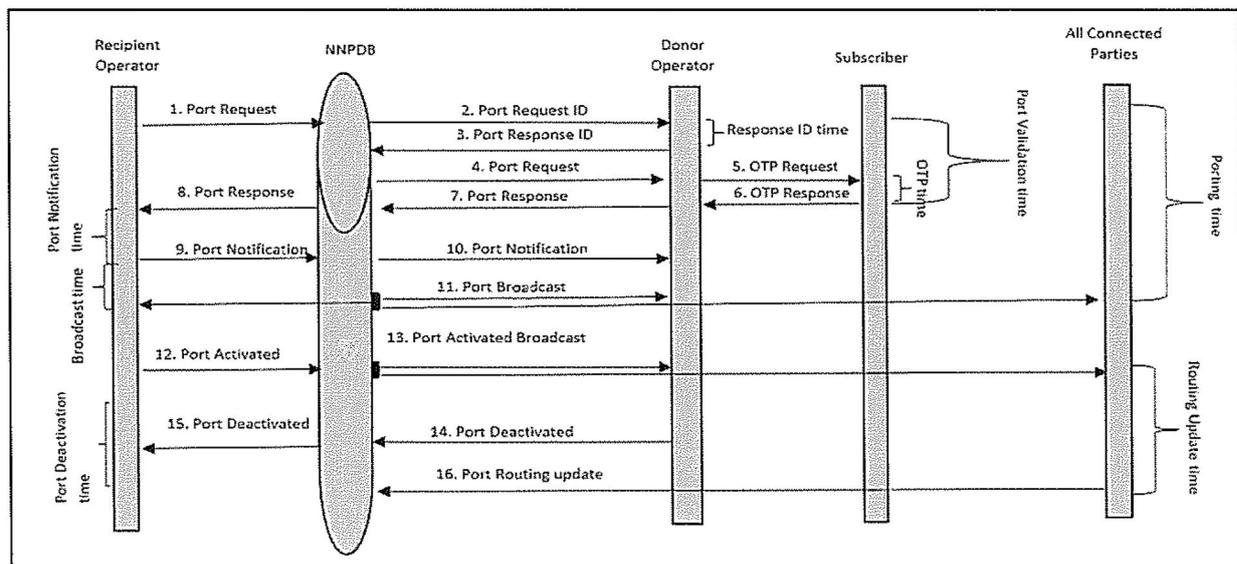


Figure 11: Port Request, Port validation and Activation

9. Port Request - Message 1

- (1) The RO shall request the information required to initiate a port in line with Regulation 3 of the Number Portability Regulations, as amended.
- (2) The RO shall send a Port Request Message to the NNPDB.
- (3) The NNPDB must then verify if the Mobile Number(s) has been previously ported.
- (4) A Port Request as submitted by the RO may include multiple Mobile Numbers, but these:
 - (a) shall belong to the same account (post-paid or corporate), or to the same Subscriber (prepaid);
 - (b) shall not contain a variation of prepaid and post-paid linked Mobile Numbers; and
 - (c) shall belong to the same DO.
- (5) Should a Port Request contain multiple Mobile Numbers not all belonging to the same DO, the NNPDB will send the Error Message to the sender with an applicable error reason. The process will terminate, and the RO shall rectify the error and initiate a new Port Request.

10. Port Request SPID - Message 2

- (1) The NNPDB forwards the Port Request SPID Message to the DO.
- (2) The NNPDB shall forward the Port Request SPID Message to the DO currently serving the Subscriber.

11. Port Response SPID - Message 3

- (1) A Port Response SPID Message is sent to the NNPDB within the Response SPID Time indicating the DO of the Subscriber requesting a port. The DO will send the Port Response SPID Message to the NNPDB.
- (2) Should the Mobile Number(s) not belong to the DO, the DO will still send Port Response SPID Message to the NNPDB indicating the error code and error explanation (MSISDN is not valid on the DO Network). The NNPDB will continue the process by sending Message 8 including the rejection code (The MSISDN is not a valid number on the DO's network). The RO and DO must escalate via the Notification and Escalation process.
- (3) The DO must include in its response Unique port ID.

12. Port Request - Message 4

The NNPDB forwards the Port Request Message to the DO as indicated in the SPID.

13. OTP Request - Message 5

- (1) The DO will send an OTP Message, in line with section 4 (1), 4(2) and 4(3) of the FSS, to the Subscriber or nominated accounting officer (Corporate account) that has requested the port.
- (2) The DO will send the OTP within 2 hours of receipt of Message 4 subject to confirming the Port Request in line with section 3 of the FSS.
- (3) The OTP Request will be valid for 4 hours (OTP time) from the time sent by the DO.

14. **OTP Response – Message 6**

- (1) The OTP Response by the Subscriber will contain the OTP as sent by the DO. The OTP Response will only be accepted by the DO within the OTP time (4 hours).
- (2) The DO will maintain auditable time records of when an OTP Request was sent and when an OTP Response was received. The abovementioned records shall be made available to both the RO PST and/or the Authority as requested.
- (3) In the event the DO receives no response to the OTP Request, the DO will still send Port Response SPID Message to the NNPDB indicating the error code and error explanation (Subscriber did not respond to the OTP Request). The NNPDB will continue the process by sending Message 8 including the rejection code (Subscriber did not respond to the OTP Request).

15. **Port Response – Message 7**

- (1) The DO will immediately send a Port Response Message to the NNPDB subject to receipt of Message 6.
- (2) The DO must, in its response, specify that the port request have been accepted or rejected. In the event of a rejection by means of the associated code. A Port Response shall happen within the Port Validation Time.
- (3) In the event of multiple Mobile Numbers in a Port Request, the Port Response Message to the NNPDB will indicate a Code for each individual Mobile Number(s). The Code will either approve the Port Request or provide a valid rejection code for every Mobile Number that is rejected
- (4) . In the event of multiple Mobile Numbers in a Port Request, whereby no OTP Response was received by the DO only one Code shall apply i.e. Subscriber did not respond to the OTP Request

- (5) Should proof be required for the Port Request, the DO PST must contact the RO PST. An agreement must be reached on when and how the proof should be provided.

16. Port Response - Message 8

- (1) The NNPDB forwards the Port Response Message to the RO.
- (2) Should the DO reject the Port Request the Port Request and Activation Process terminates.

17. Port Notification – Message 9

- (1) The RO sends a Port Notification Message to the NNPDB either ordering or declining the port. (The RO may decline the Port in the Port Notification Message if the RO no longer wishes to acquire the customer.)
- (2) The RO must send the Port Notification Message within the Port Notification Time. Failing this, the NNPDB will send the Error Message with an error code to both the RO and DO indicating that the process has been terminated.
- (3) Should the RO decide not to order the port for the Subscriber, it shall immediately send a Port Notification Message declining the port.
- (4) Should the RO send a Port Notification Message declining the Port, the process continues with Message 10 and is then terminated.

18. Port Notification – Message 10

- (1) Should the Port Notification Message indicate that the RO declines the port, the NNPDB forwards the Port Notification Message to the DO and the port

process is terminated. The Mobile Number(s) then becomes available for another Port Request.

- (2) Should the Port Notification Message indicate that the RO orders the port, the NNPDB forwards the Port Notification to the DO and the process continues.

19. Port Broadcast – Message 11

- (1) The NNPDB shall forward the Port Broadcast message to all connected parties.
- (2) The NNPDB shall send the Port Broadcast message within the Port Broadcast time.

20. Port Activated – Message 12

- (1) The RO must activate the Subscriber on its network and update its routing tables accordingly.
- (2) During the NST of the requested Porting Date, the RO sends a Port Activation Message to the NNPDB confirming that the Subscriber has been activated on the RO's network and its routing tables have been updated.
- (3) The Subscriber will also be active on the DO's network.
- (4) All Port Activated messages received by the NNPDB outside the NST will be queued and processed during the next available NST
- (5) Should the NNPDB not receive a Port Activated message within the Deferred Termination Time, the NNPDB will send an Error Message with an error reason to the RO and DO. The process is then terminated. Should a Port Activated message be sent after the Deferred Termination Time, the NNPDB will return an Error Message indicating an out of synch Message.

21. Port Activated Broadcast – Message 13

- (1) The NNPDB sends the Port Activated Broadcast Message to all parties connected to the NNPDB after receipt of the Port Activation Message from the RO.
- (2) From this time forward the Subscriber is ported.
- (3) On reception of the Port Activated Broadcast Message, the DO must deactivate the Subscriber from its network and update its routing tables and within the Port Deactivation Time.
- (4) On reception of the Port Activated Broadcast Message, all Operators involved in Direct Routing shall update their routing tables accordingly. This update must be completed within the Routing Update Time.

22. Port Deactivated – Message 14

Once the DO has deactivated the Mobile Number(s) and updated its routing tables, the DO sends a Port Deactivated Message to the NNPDB within the Port Deactivation Time.

23. Port Deactivated – Message 15

Subject to receipt of the Port Deactivated Message from the DO, the NNPDB shall forward the Port Deactivated Message to the RO.

24. Port Routing Updated - Message 16

- (1) All other connected parties must send a Port Routing Updated Message within the Routing Update Time to the NNPDB confirming that they have updated their routing tables.
- (2) The NNPDB will verify that all connected parties have sent this Message.
- (3) Port Routing Updated Message is not dependant on the Port Deactivated Message and the NNPDB will receive these messages in any sequence.

25. Port Cancellation Request - Message 21

- (1) The Cancellation Process can only be initiated after the RO has sent the Port Notification (Message 7) and before a Network Operator has sent Port Activated (Message 9) within the Port Cancellation limit.
- (2) The RO sends a Port Cancellation Request Message to the NNPDB.

26. Port Cancellation Request - Message 22

The NNPDB forwards the Port Cancellation Request Message to the DO The DO is indicated by the same SPID as in the original Port Request.

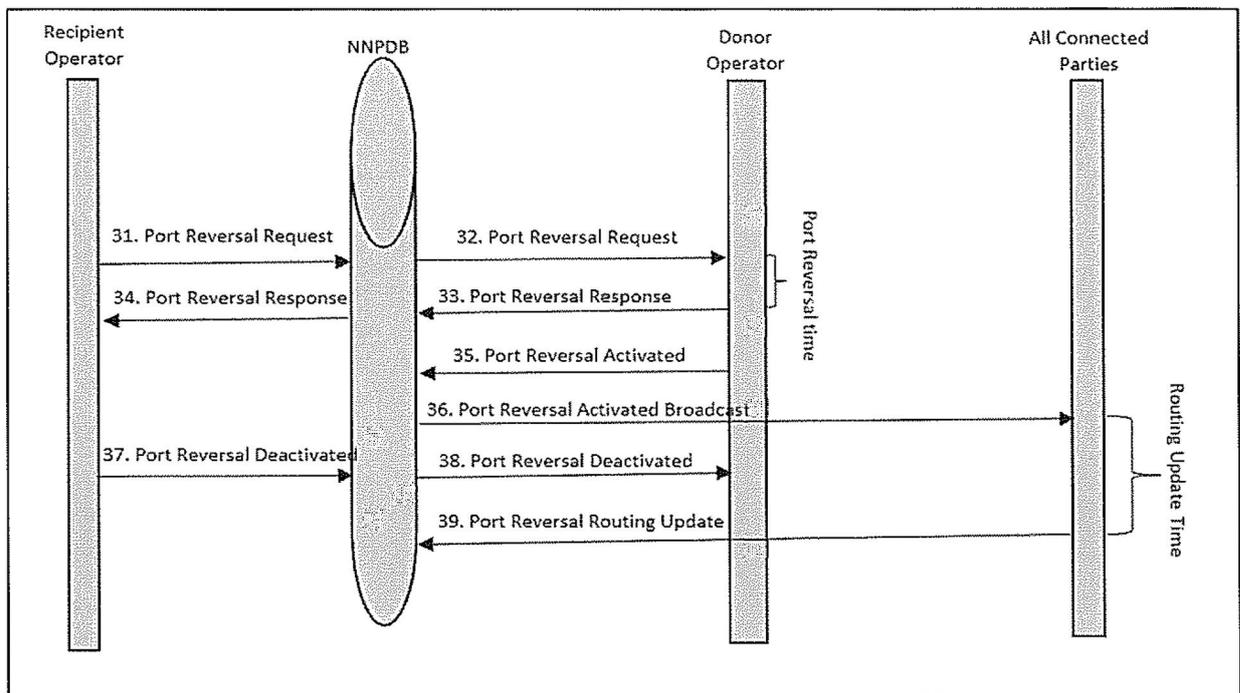


Figure 12: Port Reversals

27. Port Reversal Request - Message 31

- (1) The RO sends a Port Reversal Request Message to the NNPDB.
- (2) The Port Reversal Request can only be initiated within the Port Reversal Limit.
- (3) Should the Port Reversal Request be sent before or after the Port Reversal Limit, the Port Reversal Request will be rejected by the NNPDB.

28. Port Reversal Request - Message 32

The NNPDB forwards the Port Reversal Request Message to the DO.

29. **Port Reversal Response - Message 33**

The DO validates the Port Reversal Request in line with Regulation (6) of the FSS then sends a Port Reversal Response Message, to the NNPDB within the Port Reversal Time authorising the reversal of the port.

30. **Port Reversal Response - Message 34**

The NNPDB forwards the Port Reversal Response Message to the RO.

31. **Port Reversal Activated - Message 35**

- (1) The DO must have the Subscriber active on its network at Reversal Time and routing tables updated
- (2) The DO shall send a Port Reversal Activated Message to the NNPDB confirming that the Subscriber has now once again been activated on the DO's network and its routing tables have been updated.
- (3) The Subscriber will also be active on the RO
- (4) Should the NNPDB not receive the Port Reversal Activated message within the Port Reversal Limit, the NNPDB will send an Error Message with an error reason to the RO and DO. Should a Port Reversal Activated message be sent after the Port Reversal Limit, the NNPDB will return an Error Message indicating an out of synch Message.

32. **Port Reversal Activated Broadcast - Message 36**

- (1) The NNPDB sends the Port Reversal Activated Broadcast Message to all connected parties.

- (2) On receipt of the Port Reversal Activated Message, the NNPDB shall return the Mobile Number(s) to its\their previous status.
- (3) From this time forward the port is reversed and the DO provides services to the Subscriber.
- (4) On reception of the Port Reversal Activated Broadcast Message, the RO deactivates the subscriber from its network and update its routing tables.
- (5) On reception of the Port Reversal Activated Broadcast Message, all connected parties shall update their routing tables accordingly. This update must be completed within the Routing Update Time.

33. Port Reversal Deactivated - Message 37

- (1) On receipt of the Port Reversal Broadcast, the RO deactivates the Subscriber in the RO's Network and updates its routing tables. This must be carried out within Port Deactivation Time.
- (2) The RO sends a Port Reversal Deactivation Message to the NNPDB confirming that the Subscriber has been deactivated on the RO and has updated its routing tables.

34. Port Reversal Deactivated - Message 38

The NNPDB forwards the Port Reversal Deactivation Message to the DO.

35. Port Reversal Routing Updated Message 39

All connected parties involved shall send a Port Reversal Routing Updated Message to the NNPDB, within the Routing Update Time, confirming that they

have removed the previously ported number from their ported numbers routing table.

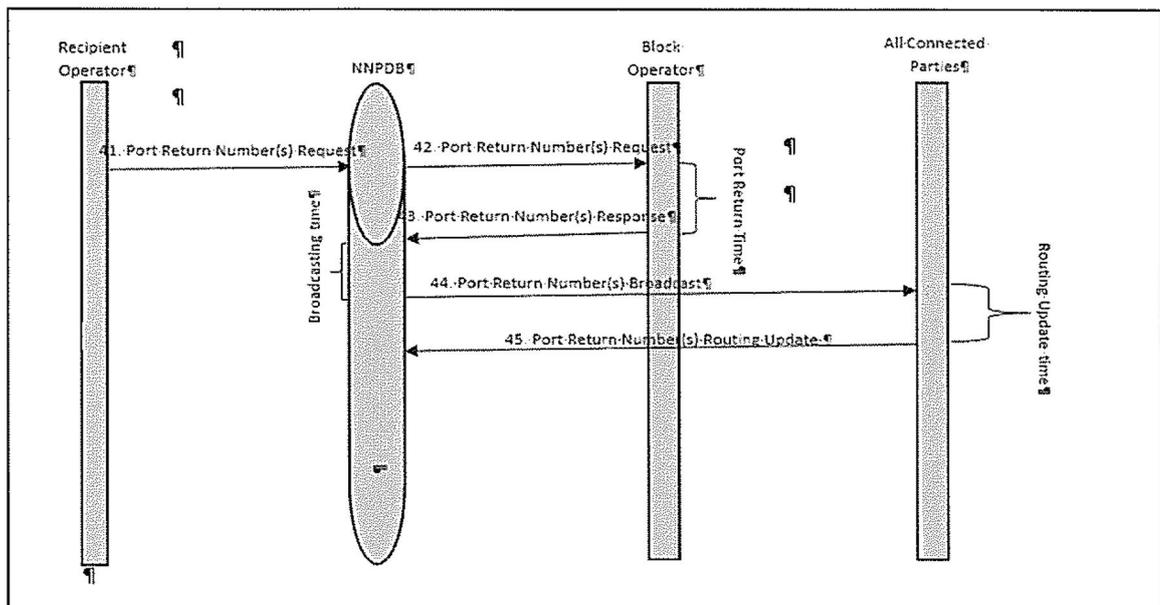


Figure 13: Return to Block Operator

36. Port Return Number Request - Message 41

- (1) Service to Mobile Number(s) ceased and the Number has been quarantined as per Last Recipient's internal rules.
- (2) The Last RO sends a Port Return Number Request Message to the NNPDB requesting that the Mobile Number(s) be returned to the Block Operator.
- (3) All Port Return Number Request Messages must only contain Mobile Numbers for a single Block Operator.
- (4) The Last RO must delay updating of routing tables until the Port Return Number Broadcast is received.

- (5) Should there be Mobile Number(s) that belong to more than one Block Operator in a Port Return Number Request Message, the NNPDB will send back an error.

37. Port Return Number Request - Message 42

The NNPDB sends the Port Return Number Request Message to the relevant Block Operator.

38. Port Return Number Response – Message 43

- (1) Upon receipt of the Port Return Number Request Message the Block Operator validates the Mobile Number(s) and if the request is valid it then updates its routing table.
- (2) The Block Operator then sends a Port Return Number Response (Message 43) to the NNPDB within the Port Return Time confirming the return of the Mobile Number(s).
- (3) In the unlikely event that a Block Operator receives a Mobile Number(s) that does not belong to the Block Operator, the Block Operator must manually escalate.

39. Port Return Number Broadcast - Message 44

- (1) The NNPDB sends a Port Return Number Broadcast Message to all connected parties, within the Port Broadcast Time, advising that the number(s) has been returned to the Block Operator.
- (2) All connected parties shall update their routing tables.

40. Port Return Number Routing Update - Message 45

All connected parties shall send a Port Return Number Routing Updated Message to the NNPDB, within the Routing Update Time, confirming that the previously ported number(s) was removed from their ported numbers routing table.

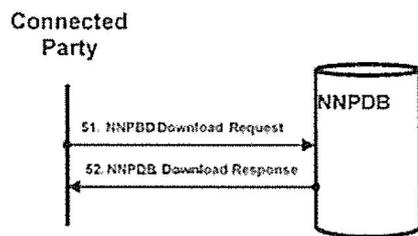


Figure: 15 NNPDB Download Process

41. **NNPDB Download Request - Message 51**

The connected party requiring the download sends the NNPDB Download Request to the NNPDB indicating if it is a full download or a delta download. In the case of a delta download, the start and end date and time must also be included. The connected party must also indicate the media type for the download to be provided (FTP, CD etc).

42. **NNPDB Download Response - Message 52**

The NNPDB will notify the connected party that the request has been received and will notify the connected party when and where the information can be accessed.

43. Emergency Notification - Message 81

- (1) The DO and/or RO shall send a Message to the NNPDB advising of a technical problem or other emergencies which will result in the inability to complete the Port Request and Activation or the Port Reversal Processes.
- (2) The NNPDB will suspend all Port Notification Time timers for the DO and/or RO concerned.

44. Emergency Notification Broadcast - Message 82

The NNPDB will broadcast this information to all the connected parties.

45. Restore Notification - Message 83

- (1) The DO and/or RO shall send a Message to the NNPDB advising that the technical problem or other emergencies which has been resolved and the DO and/or RO able to complete the Port Request and Activation or the Port Reversal Processes.
- (2) The NNPDB will continue with all Port Notification Time timers for the DO and/or RO.

46. Restore Notification Broadcast - Message 84

The NNPDB will broadcast this information to all the connected parties.

47. MNP Port Timers

All timers referred are times during business hours unless otherwise specified.

NAME	VALUE	DESCRIPTION
OTP Validation Request Time	2 hours	The maximum time between the NNPDB sending the Port Request to the DO and DO sending an OTP to the Subscriber.
OTP Validation Time	4 hours	The maximum time between the DO sending an OTP to the Subscriber and the DO receiving a response from the Subscriber.
Port Authorisation Time	7 hours	The maximum time between the NNPDB sending the Port Request to the DO and the NNPDB receiving the Port Response from the DO.
Deferred Porting Time	1 calendar month	The maximum deferred porting time. Calculated from when the RO sends the Port Notification.
Deferred Termination Time	(Deferred Porting Time + 3 days)	Three-day grace period before the NNPDB will terminate a Port Request and Activation process if the Port Activated message did not arrive before the Deferred Porting Time.
Network Synchronisation Time	1hour	Means network traffic hour (21h00 – 22h00) when the OPERATORS will update their networks to activate and deactivate porting Subscribers.
Port Authorisation Time	7 hours	The maximum time between the NNPDB sending the Port Request to the DO and the NNPDB receiving the Port Response from the DO.
Broadcast Time	1 minute	The maximum time between the NNPDB receiving a Message and the NNPDB sending a Broadcast Message to all Operators and connected parties.
Port Deactivation Time	1 hour	The amount of time specified to remove a Subscriber from active service on a network. Measured from when the NNPDB sends the Port Activated Broadcast Message 10 or the Port Reversal Activated Broadcast Message 36.

NAME	VALUE	DESCRIPTION
Port Notification Time	8 hours	The maximum time between the Recipient receiving the Port Response (Message 6) and the RO sending the Port Notification.
Ported Lock Time	1 month	The time where subsequent port request on a MSISDN will be rejected.
Port Return Time	1 hour	The maximum time between the RO receiving the Port Return Number Request (Message 42) and the RO sending the Port Return Number Response (Message 43).
Port Reversal Limit	Porting Hours to 1 month	A Port Reversal Request can be issued by the RO during Porting Hours but not more than 1 month after the Porting Time.
Port Reversal Time	15 minutes	The maximum time between the NNPDB sending the Port Reversal Request to the DO and the NNPDB receiving the Port Reversal Response from the DO.
Response SPID Time	5 minutes	The maximum time in which the DO responds with the SPID to the NNPDB.
Routing Update Time	1 hour	The maximum time in which all Operators must confirm to the NNPDB that the new call routing has been effected. Measured from when the NNPDB sends the Port Activated Broadcast Message 13, or the Port Reversal Activated Broadcast Message 36, or the Port Number Return Broadcast Message 44.

48. General Message Header

This Message Header will be included in all Messages between the NNPDB and the connected parties.

MESSAGE NAME / FIELD	TYPE	COMMENT
Reference / Porting ID	M	YYYYMMDD+hhmmss+SPID+MSISDN+SeqNr Populated by the party that triggers the first Message in the process and used throughout the porting process. MSISDN is the first MSISDN in the range of numbers in the Port Request. SeqNr is a unique number populated by the SOAP interface
Transaction Time	M	Time of sending the Message (14-digit time stamp) YYYYMMDDhhmmss
Message ID	M	Message Type (OSS Message Number)
Sender of Message	M	SPID of the party sending the Message
Receiver of Message	M	SPID of the party receiving the Message
Port Application Form ID	O	For Internal Use Only

Note: The originator of a message will populate the Receiver of Message field with the SPID of the NNPDB. The NNPDB will replace the Receiver of Message field with the SPID of the destination of the message.

Note: The Header shall always be present for messages. For the NNPDB Download Process and the Emergency Notification Process any dummy MSISDN can be used.

(1) Port Request and Activation Process

1. PORT REQUEST	TYPE	COMMENT
Recipient Network Routing Label	M	Routing Label (D82, D83, D84)
Number (n) of MSISDNs	M	Number up to n
Number 1 (MSISDN)	M	International format 27+NDC+SN
↓	C	Repetitive field

1. PORT REQUEST	TYPE	COMMENT
Number n (MSISDN)	C	Repetitive field
Account Number	C	Only one Account Nr per Port Request If Post-paid and/or Corporate, then M
Account Holder / Requestor Identification Number	C	If Postpaid then M For Corporate, no validation must be performed on this parameter
Pre-paid / Post-paid	M	For DO validation
Consumer / Corporate	M	
Corporate Registration Number	C	If Corporate, then M
Corporate Contact Person	O	If Corporate, then M
Corporate Contact Phone Number	O	If Corporate, then M
Comment 1	O	In case additional information is required
Comment 2	O	In case additional information is required

2. PORT REQUEST Spid	TYPE	COMMENT
Number (n) of MSISDNs	M	
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number n (MSISDN)	C	Repetitive field

3. PORT RESPONSE Spid	TYPE	COMMENT
SPID	C	SPID currently 'owning' the subscriber
Error Code	C	

4. PORT REQUEST	TYPE	COMMENT
<i>Same as Message 1</i>		

5. PORT RESPONSE	TYPE	COMMENT
Number (n) of MSISDNs	M	Number of original requested
Number (m) of Accepted MSISDNs	M	
Number 1 (MSISDN)	M	
Include Flag 1	M	Code to indicate Flag value 1 indicate request for MSISDN is authorised Flag value 0 indicate request for MSISDN is rejected
Reason Code 1	M	Reject Reason
RICA flag 1	O	Flag to indicate if the Donor contains the information as required by the Regulation for Interception of Communications Act
↓	M	Repetitive field
Number n (MSISDN)	M	
Include Flag n	M	Code to indicate Flag value 1 indicate request for MSISDN is authorised Flag value 0 indicate request for MSISDN is rejected
Reason Code n	M	Reject Reason
RICA flag n	O	Flag to indicate if the Donor contains the information as required by the Regulation for Interception of Communications Act

6. PORT RESPONSE	TYPE	COMMENT
<i>Same as Message 5</i>		

7. PORT NOTIFICATION	TYPE	COMMENT
Number (n) of MSISDNs	M	Number of original requested

7. PORT NOTIFICATION	TYPE	COMMENT
Number (o) of MSISDNs ordered	M	
Number 1 (MSISDN)	M	
Include Flag 1	C	Flag value 1 indicate MSISDN is ordered Flag value 0 indicate MSISDN is declined
↓	C	Repetitive field
Number n (MSISDN)	C	Repetitive field
Include Flag n	C	Flag value 1 indicate MSISDN is ordered Flag value 0 indicate MSISDN is declined
Comment 1	O	In case additional information is required
Comment 2	O	In case additional information is required

8. PORT NOTIFICATION	TYPE	COMMENT
<i>Same as Message 7</i>		

9. PORT ACTIVATED	TYPE	COMMENT
Number (n) of MSISDNs	M	Number of original requested
Number (o) of MSISDNs ordered	M	
Number 1 (MSISDN)	M	
Include Flag 1	C	Flag value 1 indicate MSISDN is ordered and activated Flag value 0 indicate MSISDN is not ordered or cancelled
↓	C	Repetitive field
Number n (MSISDN)	C	Repetitive field

9. PORT ACTIVATED	TYPE	COMMENT
Include Flag n	C	Flag value 1 indicate MSISDN is ordered and activated Flag value 0 indicate MSISDN is not ordered or cancelled

10. PORT ACTIVATED BROADCAST	TYPE	COMMENT
DO	M	DO SPID. Must be inserted by the NNPDB
RO Routing Label	M	Routing Label (D82, D83, D84). Must be inserted by the NNPDB.
Number (o) of MSISDNs	M	Number of activated MSISDNs - Consolidated
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number o (MSISDN)	C	Repetitive field

11. PORT DEACTIVATED	TYPE	COMMENT
Number (o) of MSISDNs	M	
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number o (MSISDN)	C	Repetitive field

12. PORT DEACTIVATED	TYPE	COMMENT
<i>Same as Message 11</i>		

13. PORT ROUTING UPDATED	TYPE	COMMENT
Number (o) of MSISDNs	M	
Number 1 (MSISDN)	M	

↓	C	Repetitive field
Number o (MSISDN)	C	Repetitive field

ADDITIONAL MESSAGES

Messages 14 – 20 are not used but reserved for future use.

(2) Port Cancellation Process

14. PORT CANCELLATION REQUEST	TYPE	COMMENT
Number (n) of MSISDNs	M	Number of original requested
Number (o) of MSISDNs ordered	M	Total number of MSISDNs ordered
Number (p) of MSISDNs cancelled	M	Total number of all MSISDNs cancelled
Number 1 (MSISDN)	M	
Include Flag 1	M	Flag value 1 indicate MSISDN stays ordered Flag value 0 indicate MSISDN is cancelled
↓	M	Repetitive field
Number n (MSISDN)	M	Repetitive field
Include Flag n	M	Flag value 1 indicate MSISDN stays ordered Flag value 0 indicate MSISDN is cancelled
Port Cancellation Reason Code	M	For future usage (e.g. reporting issues)
Port Cancellation Reason Explanation	O	Free text (future usage)

22. PORT CANCELLATION REQUEST	TYPE	COMMENT
<i>Same as Message 21</i>		

ADDITIONAL MESSAGES		
<i>Messages 23 – 30 are not used but reserved for future use.</i>		

(3) Port Reversal Process

31. PORT REVERSAL REQUEST	TYPE	COMMENT
Number (o) of MSISDNs	M	Same number as MSISDN in Port Activated Broadcast message
Number (r) of MSISDN to reverse	M	
Number 1 (MSISDN)	M	
Reversal Flag 1	M	Flag value 1 indicate MSISDN is to be reversed Flag value 0 indicate MSISDN is not to be reversed
↓	M	Repetitive field
Number o (MSISDN)	M	Repetitive field
Reversal Flag o	M	Flag value 1 indicate MSISDN is to be reversed Flag value 0 indicate MSISDN is not to be reversed
Port Reversal Reason Code	M	Reporting Ported in Error, Other
Port Reversal Reason Explanation	O	Free text, 200 bytes (explanation if the code is other)

32. PORT REVERSAL REQUEST	TYPE	COMMENT
<i>Same as Message 31</i>		

33. PORT REVERSAL RESPONSE	TYPE	COMMENT
Response	M	Yes / No
Number (o) of MSISDNs	C	Same number as MSISDN in Port Activated Broadcast message
Number (r) of MSISDN to reverse	C	
Number 1 (MSISDN)	C	
Reversal Flag 1	C	Flag value 1 indicate MSISDN is to be reversed Flag value 0 indicate MSISDN is not to be reversed
↓	C	Repetitive field
Number o (MSISDN)	C	Repetitive field
Reversal Flag o	C	Flag value 1 indicate MSISDN is to be reversed Flag value 0 indicate MSISDN is not to be reversed
Port Reversal Reason Code	O	Description of why the response is not approved
Port Reversal Reason Explanation	O	Free text, 200 bytes (explanation if the code is other)

34. PORT REVERSAL RESPONSE	TYPE	COMMENT
<i>Same as Message 33</i>		

35. PORT REVERSAL ACTIVATED	TYPE	COMMENT
Number (o) of MSISDNs	M	
Number (r) of MSISDN to reverse	M	
Number 1 (MSISDN)	M	
Reversal Flag 1	M	Flag value 1 indicate MSISDN is to be reversed Flag value 0 indicate MSISDN is not to be reversed
↓	C	Repetitive field
Number o (MSISDN)	C	Repetitive field
Reversal Flag o	M	Flag value 1 indicate MSISDN is to be reversed Flag value 0 indicate MSISDN is not to be reversed

36. PORT REVERSAL ACTIVATED BROADCAST	TYPE	COMMENT
RO	M	Recipient Network Operator SPID. Must be inserted by the NNPDB.
DO Routing Label	M	Routing Label (D82, D83, D84). Must be inserted by the NNPDB.
Number (r) of MSISDNs	M	Number of activated MSISDNs - Consolidated
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number r (MSISDN)	C	Repetitive field

37. PORT REVERSAL DEACTIVATED	TYPE	COMMENT
Number (r) of MSISDNs	M	
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number r (MSISDN)	C	Repetitive field

38. PORT REVERSAL DEACTIVATED	TYPE	COMMENT
<i>Same as Message 37</i>		

39. PORT REVERSAL ROUTING UPDATED	TYPE	COMMENT
Number (r) of MSISDNs	M	
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number r (MSISDN)	C	Repetitive field

ADDITIONAL MESSAGES		
<i>Message 40 are not used but reserved for future use.</i>		

(4) Return to Block Operator Process

41. PORT RETURN NUMBER REQUEST	TYPE	COMMENT
Number (n) of MSISDNs	M	
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number n (MSISDN)	C	Repetitive field

42. PORT RETURN NUMBER REQUEST	TYPE	COMMENT
<i>Same as Message 41</i>		

43. PORT RETURN NUMBER RESPONSE	TYPE	COMMENT
Number (n) of MSISDNs	M	
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number n (MSISDN)	C	Repetitive field

44. PORT RETURN NUMBER BROADCAST	TYPE	COMMENT
Number (n) of MSISDNs	M	
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number n (MSISDN)	C	Repetitive field
Block Network Operator	M	

45. PORT RETURN NUMBER ROUTING UPDATED	TYPE	COMMENT
Number (n) of MSISDNs	M	
Number 1 (MSISDN)	M	
↓	C	Repetitive field
Number n (MSISDN)	C	Repetitive field

ADDITIONAL MESSAGES		
<i>Messages 46 – 50 are not used but reserved for future use.</i>		

(5) NNPDB Download Process

51. NNPDB DOWNLOAD REQUEST	TYPE	COMMENT
Download type	M	Full or Delta download required
Start date and time	C	Mandatory if Delta download
End date and time	C	Mandatory if Delta download
Media type	M	For example, FTP, CD, DVD etc

52. NNPDB DOWNLOAD RESPONSE	TYPE	COMMENT
Date and Time	M	
Location/link	C	The link to the actual data if electronic or location where data can be collected.
Contact details	M	Person to be contacted regarding the collection of the data.

ADDITIONAL MESSAGES

Messages 53 – 80 are not used but reserved for future use.

(6) Emergency Notification Process

81. EMERGENCY NOTIFICATION	TYPE	COMMENT
Problem Code	M	Routing, Authorisation (CRM) or Transmission
Problem Code Explanation	M	
Party experiencing problem	M	SPID

82. EMERGENCY NOTIFICATION BROADCAST	TYPE	COMMENT
Problem Code	M	Routing, Authorisation (CRM) or Transmission
Problem Code Explanation	M	
Party experiencing problem	M	SPID

83. RESTORE NOTIFICATION	TYPE	COMMENT
Party restored	M	SPID

84. RESTORE NOTIFICATION BROADCAST	TYPE	COMMENT
Party restored	M	SPID

ADDITIONAL MESSAGES		
<i>Messages 85 – 89 are not used but reserved for future use.</i>		

(7) General Messages

98. TIMER VIOLATION MESSAGE	TYPE	COMMENT
Expected Message	M	Message Id
Time of expiration	M	Time when the timer expires

99. ERROR MESSAGE	TYPE	COMMENT
Error Code	M	
Error Explanation	M	
Message Type	C	

ADDITIONAL MESSAGES		
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<i>Messages 90 – 97 are not used but reserved for future use.</i>

49. **Short Title and Commencement**

These specifications are called the Ordering System Specification for Geographic, Non-Geographic and Mobile Number Portability and will come into effect on a date to be determined by the Authority by notice in the Government Gazette.

WARNING!!!

To all suppliers and potential suppliers of goods to the Government Printing Works

The Government Printing Works would like to warn members of the public against an organised syndicate(s) scamming unsuspecting members of the public and claiming to act on behalf of the Government Printing Works.

One of the ways in which the syndicate operates is by requesting quotations for various goods and services on a quotation form with the logo of the Government Printing Works. Once the official order is placed the syndicate requesting upfront payment before delivery will take place. Once the upfront payment is done the syndicate do not deliver the goods and service provider then expect payment from Government Printing Works.

Government Printing Works condemns such illegal activities and encourages service providers to confirm the legitimacy of purchase orders with GPW SCM, prior to processing and delivery of goods.

To confirm the legitimacy of purchase orders, please contact:

Anna-Marie du Toit (012) 748-6292 (Anna-Marie.DuToit@gpw.gov.za) and

Siraj Rizvi (012) 748-6380 (Siraj.Rizvi@gpw.gov.za)

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