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INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

NO. 1382   **13 DECEMBER 2018**

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

THE DRAFT ORDERING SYSTEM SPECIFICATION FOR NUMBER PORTABILITY

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

A copy of the proposed Draft OSS is available on the Authority's website (www.icasa.org.za) and 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.

Interested parties are hereby invited to submit written representations with regards to the proposed Draft OSS. Written representations must be submitted to the Authority within thirty (30) working days from the date of the publication of this notice by post or hand delivery or email as follows:

Independent Communications Authority of South Africa
FOR ATTENTION: Mr. Lordwill Zwane
Private Bag X10,
Highveld Park
0169

OR

350 Witch-Hazel Avenue, Eco Point Office Park

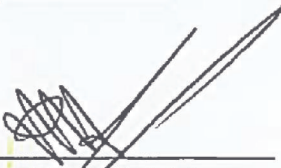Eco Park, Centurion, Highveld Park

0169

OR

Email: Lzwane@icasa.org.za

Written representations received by the Authority pursuant to this notice, will be made available for inspection by interested persons at the Authority's library and such copies will be obtainable upon payment of the prescribed fee.

When a person submits information to the Authority, such person may request that specific information be treated as confidential information in terms of section 4D of the Independent Communications Authority of South Africa Act, 2000 (Act No. 13 of 2000) ("ICASA Act"). The request for confidentiality must be accompanied by a written statement explaining why the specific information should be treated as confidential in terms of section 4D(4)(a) to (e) thereof. The Authority may determine that such representations or any portion thereof is to be treated as confidential in terms of section 4D of the ICASA Act. Where the request for confidentiality is refused, the person who made the request will be granted an opportunity to withdraw such representations or portion(s) thereof.

Persons submitting written representations are further invited to indicate, as part of their submissions, whether they require an opportunity to make oral presentations.

Rubben Mohlaloga
Chairperson

Date: 11 / 12 /2018

Draft Ordering System Specification for Number Portability

1   DEFINITIONS

In these Regulations, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in the Number Portability Regulations published under Government Notice 1021 (Government Gazette No 41949) of 1 October 2018, shall have the meaning so assigned –

"**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 National Numbering Plan;

"**broadcast**" means the process where the central reference 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;

"**central reference database**" means a centralised database of all geographic, non-geographic and mobile numbers and that have been ported from one operator to another operator pursuant to the regulations;

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

"**connected parties**" means all entities that are connected to, or interface with, the central reference database;

"**deferred port**" means a port that will be effected at a porting date, up to 31 calendar days subsequent to sending the Port Notification;

"**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, as amended;

"**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;

GNP and NNP NST means 17h00 – 18h00;

"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 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;

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

"**non-geographic number**" means numbers in the 080, 086 and 087 national destination code;

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

"Number Portability Regulations" means the Number Portability Regulations, 2018 published in Government Gazette No. 41949 of 1 October 2018, as amended;

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

"operator" means an electronic communications service licensee or an electronic communications network service licensee as defined in the Act;

"ordering system specification" means a specification of the procedures by which a recipient operator and a donor operator exchange information between each other to provide number portability to a subscriber, including the information to be sent, the format of the information, the means of communication, the times when communications may be sent, the time limits for responses and the handling of error conditions;

"physical porting" means the actual de-activation of a geographic number 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 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 by the donor operator;

"**port authorisation time"** means the time and date when physical porting of a 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/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;

 "third party porting" means ports that are executed by agents and\or contractors on behalf of an operator;

"transaction" means the various inter-operator communications through the central reference database;

"vendor" means the supplier of any telecommunications end user equipment that may be relevant to porting activities;

2   ABBREVIATIONS

CRDB	Central Reference Database
GNP	Geographic Number Portability
FSS	Functional System Specification
MSISDN	Mobile Station Integrated Service Digital Network Number
MNP	Mobile Number Portability
MNO	Mobile Network Operator
NST	National Synchronisation Time
NNP	Non-Geographic Number Portability
OSS	Ordering System Specification
OID	Operator Identity
SIM	Subscriber Identification Module
SMS	Short Message Service
SPID	Service Provider Identity
SP	Service Provider
PST	Porting Support Team
PAR	Porting Authorisation Representative

3   PURPOSE OF THE REGULATIONS

(1) The purpose of these Regulations is to prescribe the process which must be followed whenever a geographic, non-geographic and mobile number(s) assigned to a subscriber is\are ported from of one operator to another operator.

(2) These Regulations specify the procedures by which a Recipient Operator and a Donor Operator, exchange information between each other in order to provide number portability to a subscriber, including the information to be sent, the format of the information, the means of communication, the times when communications may be sent, the time limits for responses and the handling of error conditions

4 SCOPE AND APPLICATION OF THE REGULATIONS

(1) These Regulations apply to all operators with:

    (a) Geographic number allocations;

    (b) Non-geographic number allocations; and

    (c) Mobile number allocations.

5 EXCLUSIONS

(1) These Regulations do not apply to mobile numbers that were exempted from the Machine Related Service migration as per Regulation 22(2) of the Numbering Plan Regulations.

6 OBLIGATIONS OF PERSONS BOUND BY THESE REGULATIONS

(1) The recipient operator must:

(a) receive, process and validate port requests received from subscribers as prescribed in these Regulations;

(b) lodge port requests with donor operators on their 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 Regulations;

(e) confirm all Change of installation address requests with the block operator before proceeding with such changes;

(f) return numbers to the Block Operator when service is ceased on such numbers on the same day;

(g) if they are to charge a subscriber for successful ports, declare such charges to the subscriber prior initiating the port; and

(h) establish a PST which will handle all technical porting related issues and send and receive all notifications and a PAR which will handle and resolve all port authorisation related issues.

(2) The donor operator must:

(a) receive, process and validate port requests received from recipient operators as prescribed in regulation 4(1) to (6) of the FSS;

(b) accept or reject one or more individual numbers or the entire number range specified in the port request and inform the recipient

operator of the results, together with reasons in case of a rejection as prescribed in Regulation 5(1) to (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 Regulations; and

(d)   establish a PST which will handle all technical porting related issues and send and receive all notifications and a PAR which will handle and resolve all port authorisation related issues.

(3)   Block operators must:

(a)   take back ported number(s) from recipient operators in the circumstances and in accordance with the procedures prescribed in the functional specification;

(b)   verify that all "change of installation address" requests conform to their exchange area boundaries; and

(c)   must quarantine a returned number for a period of 1 months.

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

(5)   Subscribers must:

(a)   only request ports in respect of numbers which have been assigned to them by the donor operator; and

(b)   cooperate with the recipient operator and the donor operator to ensure that all porting activities occur on time and in accordance with these regulations, including, for the avoidance of doubt:

(i)   in relation to the drawing up and execution of project plans for managed processes;

(ii) by using their best endeavours to ensure that the suppliers of customer premises equipment and telecommunications facilities

co-operate with the recipient operator and donor operator in relation to port requests; and

   (iii)   providing reasonable access to the subscribers' premises as required by the recipient operator and the donor operator to implement port requests.

(6)   Connected parties must:

   (a)   maintain their own subset of information as required, with the information broadcasted by the CRDB; and

   (b)   in order to maintain their own subset of information request downloads from the CRDB as and when required using the CRDB download process.

(7)   The purpose of the CRDB shall be to:

   (a)   administer number portability transactions and act as a central point for the facilitation and control of all transactions relating to number portability between operators;

   (b)   validate and provide an audit trail of all number portability transactions between operators;

   (c)   provide information and reports to:

     (i)   the Authority relating to number portability to the extent required by the Regulations; and

     (ii)   to the recipient operator and the donor operator to the extent reasonably requested by them;

   (d) 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 regulations, including but not limited to the operator currently serving such ported numbers;

   (e) The CRDB will not act as an online routing database; and
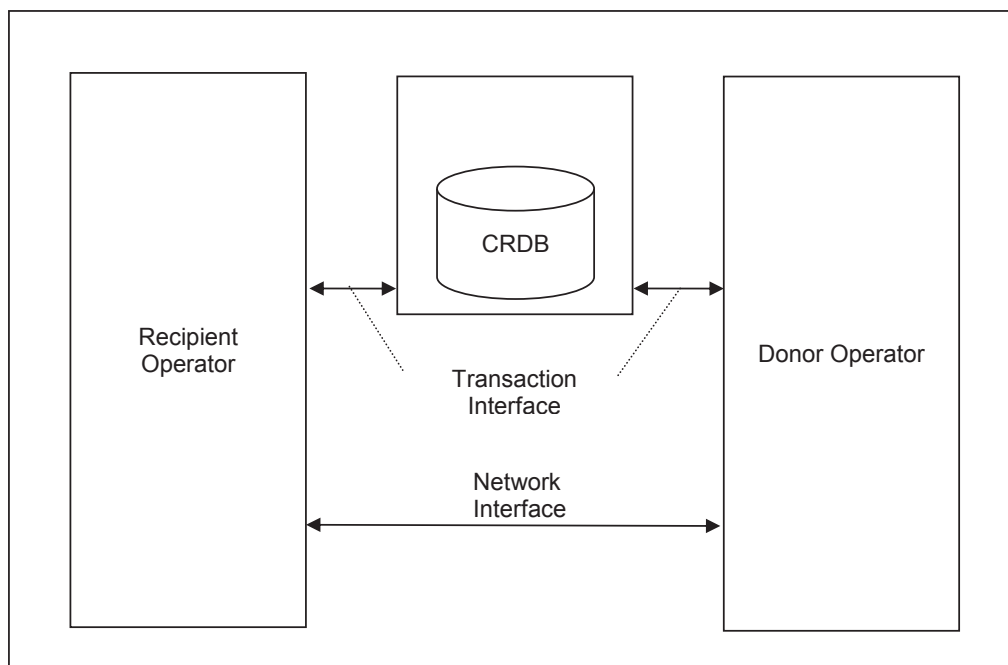
The architecture of the CRDB shall be as follows:

Figure 1: CRDB Architecture

(f)   CRDB's functions shall include the ability to:

(i)   administer transactions between the Recipient and the Donor operator and validate such transactions in line with these Regulations;

(ii)   validate 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)   manage messages regarding activation, deactivation and the update of routing tables during Network Synchronisation Time and reject all other messages during the Network Synchronisation Time with an error message;

(v)   provide the facility to enable a download of the entire database or a delta from a start date to an end date; and

(vi)   forward all message within one minute of receipt.

7 PORTING PROCESS

(1)   Communication between any party and the CRDB to effect Port Request and Activation, Port Cancellation, Port Reversal and Return to Block Operator processes can only be handled at times agreed between the SPs and MNOs but shall include at least the following times herein referred to as Business Hours:

(a) Monday to Friday   9:00 – 17:00
(b) 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:

(a) Sundays; and
(b) Public Holidays.

(3) Activation and deactivation on the network and updating of routing tables shall only take place during Network Synchronisation Time (19h30 – 22h00) 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) There are no limitations on a Subscriber requesting any number port process in any outlet outside of these hours. However, the communication between the donor operator, recipient operator and the CRDB 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 the times specified above.

(5) Messages pertaining to activation, deactivation and the update of routing tables will be handled during Network Synchronisation Time. All other Messages will be rejected by the CRDB during the Network Synchronisation Time with an error Message. Such Messages should be resubmitted during Business Hours. Messages indicating a successful deactivation and update of routing tables will also be handled after Network Synchronisation Time.

(6) Messages indicating activations at the Recipient operator during the Port Activation and Request process will not be forwarded outside of Network

Synchronisation Time. The CRDB will queue these Messages and continue with the process during the following Network Synchronisation Time.

(7) The CRDB Download and Emergency Notification processes can be invoked during any time when the CRDB is available.

(8) **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 invoked.

(b) Where a subscriber has a certain status with the Donor, i.e. prepaid or post-paid, and wants to have a different status with the recipient, the Port Request should indicate the status of the Subscriber at the Donor Network. The subscriber will be activated on the Recipient with the requested status.

(9) **Port Cancellation**

(a) Once a Port order has been agreed to, the Port can only be cancelled if there is agreement between the Recipient and the Subscriber. Subscriber shall cancel a port request on notification to the recipient operator.

(b) Recipient operator shall send a full or partial cancellation message to donor operator through CRDB.

(c) If 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) CRDB shall record the full or partial cancellation of port.

(e) Recipient Operator may send multiple partial cancel requests for a port.

(f) Port cancellations are subject to time limitations permitted for cancelling a Port.

(10)   **Port Reversal**

(a)   In the event that a port has been deemed an invalid port and where the subscriber did not request to port, the port must be reversed immediately. This process will only be used if it is discovered that a port was erroneously performed.

(b)   Recipient operator must send a full or partial reversal message to donor operator through CRDB.

(c)   Donor Operator 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.

(11)   **Return to Block Operator**

(a)   Where the recipient operator de-activates a ported number on its network, the recipient operator must return the ported number to the block operator.

(b)   Once a ported number is de-activated, the recipient operator must send a number return message to the CRDB.

(c)   The CRDB must remove the number from the ported number list in the CRDB on receipt of the number return message.

(d)   The CRDB must send a general port notification to the authorised users of the CRDB 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 these regulations.

(12) **CRDB Download**

(a) If a connected party requires a complete download or to synchronise a corrupt local database, this process will be used.

(b) The download information shall only be used in the context of Number Portability.

(13) **Emergency Notification**

(a) Whenever a donor or recipient is experiencing technical problems, this need to be communicated to the CRDB. The CRDB 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 CRDB will queue all messages to the party experiencing a transmission problem. Once a transmission problem has been resolved, the CRDB will send all queued messages, maintaining the order of the messages.

(d) When donor operator or recipient operator experiences technical problems, the CRDB 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, on becoming aware of such technical problem, and through suitable contact media, notify the PSTs of all other operators. Such notification shall include details as to 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 CRDB immediately.

8. DISPUTE RESOLUTION

(1)   Should any dispute arise between the Parties in connection with -

(a) the porting of any number;

(b) the refusal by the Donor to authorise a port;

(c) the payment of any fees or charges arising from the porting of any number or numbers;

(d) any provision of this OSS, or any of its annexures, or the Number Portability Regulations or

(e) which relate in any way to any matter affecting any SP or Operator in relation to Number Portability

(2) All disputes arising, as provided for above, shall be referred promptly for determination by the Executive Head of Sales (the person ultimately responsible for Sales) of each of the Parties, at the instance of either of the Parties.

(3) Should the Parties fail to resolve any dispute between themselves or should the Executive Head of Sales of the Parties fail to reach agreement in the determination of any dispute referred to them as provided above, within seven (7) days of such referral, the Aggrieved Party may refer the matter to arbitration in accordance with the remaining provisions of this clause relating to arbitration. Such referral shall be by means of a written notice ("Arbitration Notice") faxed to the other party or parties using the relevant fax number listed in the Operator and Service Provider Contact List.

(4) Notwithstanding anything to the contrary contained in this clause, neither Party shall be precluded from obtaining interim relief from a court of competent Jurisdiction pending the decision of an arbitrator appointed in terms of this clause.

(5) The arbitration shall be held -

(a) *mutatis mutandis* in accordance with the provisions of the High Court Act 59 of 1959, as amended the rules made in terms of that Act and the practice of the North Gauteng High Court;

(b) in Pretoria;

(c) with only the legal and other professional representatives of the Parties present;

(d) in terms of the Arbitration Act, No. 42 of 1965,

(e) it being the intention of the Parties that the arbitration shall be held and completed as soon as possible.

(6) The arbitration shall be, if the matter in dispute is principally -

(a) a legal matter, a practising senior advocate or attorney of Johannesburg of at least 10) years standing;

(b) an accounting matter, a practising chartered accountant of Johannesburg of at least ten (10) years standing;

(c) a telecommunications matter, an expert in the field of telecommunications of at least ten (10) standing;

(d) any other matter, an independent person who is an expert in the field in which the dispute has arisen,

(e) agreed upon between the Parties to the dispute,

(7) provided that if the arbitrator is not a practising lawyer, he or she shall during the arbitration proceedings be assisted by a practising lawyer of his or her choice.

(8) Should the Parties to the dispute fail to agree whether the dispute is principally a legal, accounting, telecommunications, or other matter within two (2) days after receipt by the other party of the Arbitration Notice, the matter shall be deemed to be a legal matter.

(9) Should the Parties fail to agree on an arbitrator within seven (7) days after the date of the receipt of the Arbitration Notice, the arbitrator shall be appointed at the request of either Party to the dispute by the Chairperson for the time being of the Bar Council of Johannesburg (or any successor body).

(10) The decision of the arbitrator shall be final and binding on the Parties and may be made an order of the court at the instance of either of the Parties.

(11) The Parties hereby consent to the jurisdiction of the High Court of South Africa (North Gauteng) (or its successor).

(12) The Parties agree to keep the arbitration, including the subject matter of the arbitration and the evidence heard during the arbitration, confidential and not to disclose it to anyone except for the purpose of an order to be made.

(13) The provisions of this clause –

(a) constitute an irrevocable consent by the Parties to any proceedings in terms of this clause and neither Party shall be entitled to withdraw therefrom or claim at any such proceedings that it is not bound by such provisions;

(b) are severable from the rest of the OSS and shall remain in effect despite the termination of or invalidity for any reason of the OSS, or any part of this OSS.

9   Force Majeure

(1) If either Party ("the Affected Party") is prevented or restricted directly or indirectly from carrying out all or any of its obligations under this Agreement by reason of events beyond the control of such Affected Party, which makes it impossible or illegal for such Affected Party to perform, including (but not limited to) strike, lock-out, fire, explosion, floods, riot, war, accident, act of God, embargo, legislation, shortage of or a breakdown in transportation facilities, civil commotion, unrest or disturbances, cessation of labour, government interference or control, or any other cause or contingency beyond the reasonable control of the Affected Party, the Affected Party shall be relieved of its obligations hereunder during the period that such event and its consequences continue but only to the extent so prevented and shall not be liable for any delay or failure in the performance of any obligations hereunder or loss or damages either general, special or consequential which the other Party may suffer due to or resulting from such delay or failure, provided always that written notice shall forthwith be given of any such inability to perform by the Affected Party within three 3 (3 three) Business Days from the date the Affected Parties experienced the delay or failure.

(2) The Affected Parties shall upon termination of the event giving rise to the force majeure forthwith give written notice thereof to the other Party.

(3) The Affected Party shall always endeavour to continue to perform its obligations as far as reasonably practical.

(4) Governmental inaction or failure or refusal to approve shall not be regarded as a force majeure event where the Party has failed to fulfil all its obligations to enable such governmental authorities to issue any approvals.

(5) The reasons for refusal are, save for reasons e and i, essentially self-evident or objective. The Recipient should be able to resolve the problem. If the Recipient is unable to resolve the issue, the PST of the Donor should be able to resolve these problems. The reasons given for refusal in e and i

are likely to give rise to disputes of fact and may require intervention from sales and account management staff of the Recipient and Donor.

(6) Therefore, having received a Port Response from the Donor which indicates that the Subscriber cannot port, the Recipient shall inform the Subscriber of the reasons for the refusal. Should the reason be:

(a)   a reason other than e or i above;

(b)   the Subscriber believes the reason given is incorrect; and

(c)   the Recipient is unable to resolve the problem itself;

(7) then the Recipient shall follow the Port Authorisation Problem Escalation Path 1.

(8) If, however, the Recipient receives a Port Response from the Donor which indicates that the Subscriber cannot port for the reasons given in e or i above, the Recipient shall inform the Subscriber of the reasons for the refusal. Should the Subscriber dispute the reason given then the Recipient shall follow the Port Authorisation Problem Escalation Path 2.

(9) Port Authorisation Escalation Path 1: The Recipient may, having received a notification from the CRDB that the Donor refuses the port for a reason other than the reasons listed above and the Recipient or the Subscriber believes such reason is incorrect, manually escalate the refusal by contacting the Donor's PST at the numbers listed in the Operator and Service Provider Contact List.

(10) Should the Donor's PST fail to resolve the problem within 1 working day of receiving the request from the Recipient, the Recipient may escalate the issue to the Team leader of the PST at the numbers in the Operator and Service Provider Contact List.

(11) Port Authorisation Escalation Path 2: The Recipient may, having received a notification from the CRDB that the Donor refuses the port for the reasons listed in e or i in the Port Authorisation in 9 above, and the Subscriber disputes such reason, manually escalate the refusal by contacting the Donor's PAR to resolve the issue. The Donor's PAR can be contacted at the numbers in the Operator and Service Provider Contact List.

(12) Should the Donor's PAR fail to resolve the problem within 1 working day of receiving the request from the Recipient, the Recipient may escalate the issue to the Donor's National Sales Manager at the numbers in the Operator and Service Provider Contact List.

(13) In the event where a Donor party do not respond to a request from a Recipient, the Recipient's PST shall attempt to resolve the delay in the response. This shall be done by contacting the CRDB and subsequently the Donor's PST to resolve the delay.

(14) Monthly Reports: The CRDB will provide the parties with monthly porting time statistics. The reports should be divided in Consumer and Corporate reports and should include a monthly average of failures / breaches.

(15) Monthly Meetings: The Team Leaders of the PST and the PAR of each Operator and Service Provider shall after the implementation of MNP, meet a minimum of once a month (unless agreed otherwise by the Team Leaders and PARs) to review the porting time statistics, with a view to resolving any technical issues impacting on porting response times.

(16) 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 may, within fourteen (14) days.

10 SECTION A: GEOGRAPHIC AND NON-GEOGRAPHIC PORTABILITY

(1) Depending on the size and nature of the port request, geographic and non-geographic numbers shall be ported according to either a managed process or an individual process.

(2) The managed process shall be used to port a block of list of single numbers or a single range of numbers where the individual process has not been requested:

    (a) to port number ranges; and/or

    (b) to port groups of associated individual numbers that in the joint opinion of the recipient operator and the donor operator 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 sub-regulation 2 may be requested by the subscriber, the donor operator, or the recipient operator. Where so requested, the managed process must be used unless it is not feasible to do so in the circumstances, and this is agreed by the recipient operator, the donor operator, and the subscriber.

(4) Where the managed process is used, a project team will be appointed to oversee the porting process consisting of:

    (a) at least one representative from the recipient operator, appointed by the recipient operator;

    (b) at least one representative from the donor operator, appointed by the donor operator;

    (c) the subscriber as required by the recipient operator or the donor operator, 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 recipient operator's network and the deactivation of such number on the donor operator's network, so as 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 practical duration;

(b) the time frames for completing the managed process and for porting geographic and non-geographic numbers subject to sub-regulation 5(a) shall only be changed in extenuating circumstances, and with the subscriber's written consent; and

(c) The recipient operator shall initiate a Port Activation transaction upon the completion of the physical porting of geographic and non-geographic numbers pursuant to a managed process.

(6) The recipient operator shall lead the project team. Any disputes that cannot be resolved by agreement within the project team, it 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.

(8) Notification of activation on the recipient operator's network of all individual numbers that have been ported on the same day must take place at NST.

(9) In the event of a change of Installation Address Process, the:

(a) Subscriber must notify the Recipient operator at time of the port request or after a port has already taken place.

(b) Recipient operator must verify the proposed address complies with the NDC boundaries.

(c) Change of Installation Address Process is independent of the Managed or Individual processes.

(10) 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.

(11)   The geographic and non-geographic transactions must be defined in terms of:

   (a)   Purpose of transaction: Describes the purpose for which the transaction is used;

   (b)   Originator: Identifies which party starts the transaction flow;

   (c)   Intended for: Identifies which party the transaction flow is intended for;

   (d)   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;

   (e)   Individual or managed process: Identifies whether this transaction is applicable to the managed or individual processes or both; and

   (f)   Information inherent in transaction: Describes what high-level information is contained in the transaction.

(12)   The Recipient Operator 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.

(13)   All transactions will be acknowledged by the recipient of the message via the SOAP interface.

(14)   The date and time in the message header will be considered as the time that operation took place, e.g. activation, deactivation, etc.
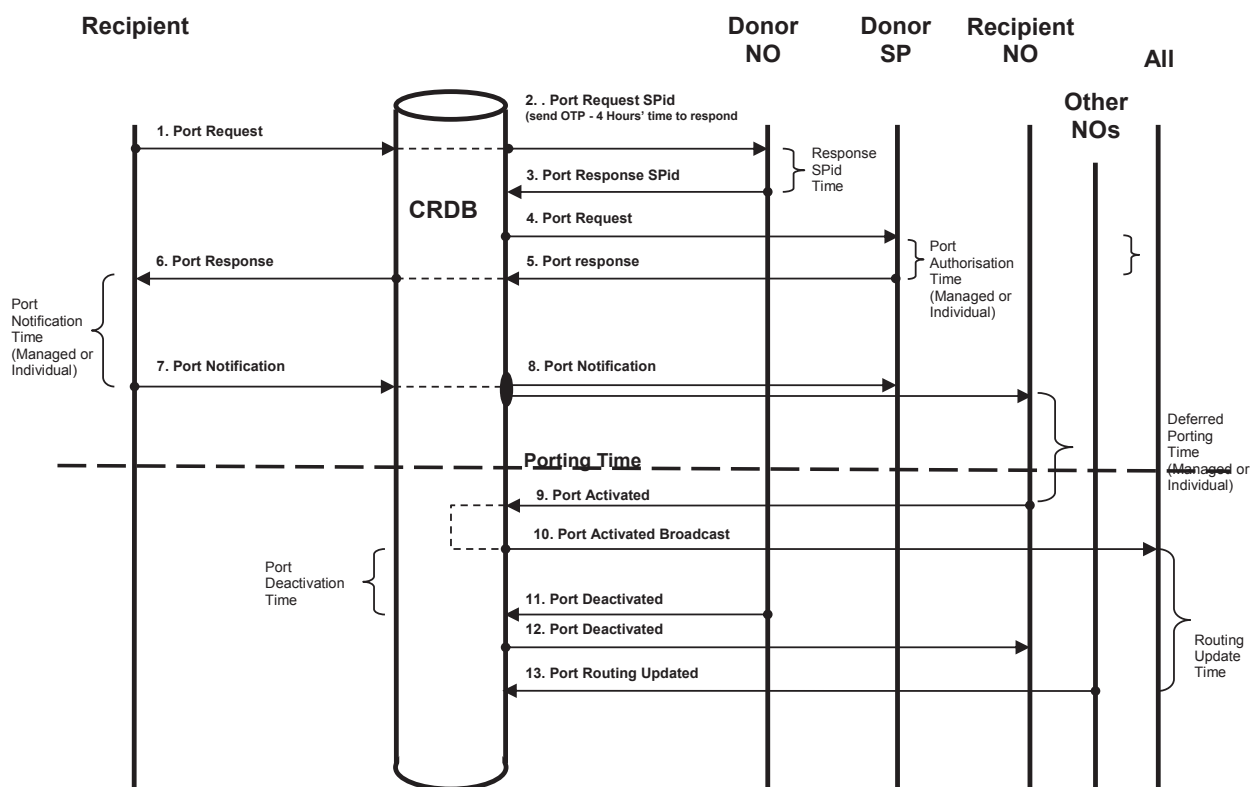
Figure 2 Port Request and Activation Process

(15) **Port Request Transaction**

  (a) Purpose of transaction:

    The purpose of this transaction is for the Recipient operator to inform the Donor operator of a port request by the donor operator's subscribers to port their geographic and non-geographic numbers to the recipient operator's network.

  (b) Originator:

    Recipient operator.

  (c) Intended for:

    Donor operator.

  (d) Time constraints:

    A port request transaction will be entertained only during business hours. The recipient operator can send the request at any time, but the donor

operator may be deemed to have received the request at the next working day if the request was sent after business hours.

(e)   Individual or managed process:

The port request transaction is applicable to all port processes.

(f)   Information inherent in transaction:

The recipient operator must give the donor operator the following information in respect of each port request:

(i)   Unique port ID;

(ii)   Subscriber's account number with the donor operator;

(iii)   Subscriber ID number or other equivalent identifier for Subscriber – for instance passport number (for a foreign national) or company registration number (for an enterprise);

(iv)   List of geographic and non-geographic numbers or a single range of numbers that are the subject of the port request;

(v)   Nature of port request (individual / managed process);

(vi)   In case of managed process, a contact person and contact details from the recipient operator who will co-ordinate the porting; and

(vii)   In the event that a simultaneous address change is requested then the Transaction ID of the relevant Change of Installation Address Response from the Block Operator confirming the address validity must be supplied.

(16) **Port Request OID**

    (g) Purpose of transaction:

        The purpose of this transaction is for the CRDB to determine which operator is serving the number that is to be ported;

    (h) Originator:

        CRDB;

    (i) Intended for:

        Donor operator;

    (j) Time constraints:

        A port request OID transaction will be entertained only during business hours;

    (k) Individual or managed process:

        This transaction is applicable to all port processes;

        Information inherent in transaction

        The recipient operator must give the donor operator the following information in respect of each request:

     (i) Unique port ID; and

    (ii) List of geographic and non-geographic numbers or a single range of numbers that are the subject of the request.

(17) **Port Response OID**

    (a)   Purpose of transaction

        The purpose of this transaction is for the Donor operator to confirm with the CRDB if it is serving the number that is to be ported.

    (b)   Originator

        Donor operator

    (c)   Intended for

        CRDB.

    (d)   Time constraints

        The response must be provided within the Response OID Time.

    (e)   Individual or managed process

        This transaction is applicable to all port processes.

    (f)   Information inherent in transaction

        The donor operator must give the CRDB the following information in respect of each number:

    (i)   Unique port ID.

(18) **Port Response Transaction**

    (a)   Purpose of transaction

        The donor operator must use the port response transaction process to inform the recipient operator whether the numbers/number range specified in the port request have been accepted or rejected. In the

event of a rejection, the grounds for the rejection must be supplied by the donor operator to the recipient operator.

(b)   Originator

Donor operator.

(c)   Intended for

Recipient operator.

(d)   Time constraints

The donor operator must give the recipient operator a port response as soon as possible, but not later than the Port Authorisation Timer (for individual or managed process as applicable).

(e)   Individual process or managed process

The port response transaction is applicable to all port processes.

Information inherent in transaction

The donor operator must supply the following information to the recipient operator pursuant to a port response transaction:

(i)   Unique port ID;

(ii)   List of geographic and non-geographic numbers or a range of geographic and non-geographic numbers that are the subject of the port request, i.e., the same list of numbers or number range from the port request;

(iii) Include flag, per number or number range, indicating acceptance or rejection of the numbers/range for the port;

(iv) 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 CRDB must adjust the timers appropriately; and

(v) If the Managed process was requested by the Recipient Operator or if there is a move from Individual process to the Managed process, the contact details of the responsible person from the donor operator.

(f)   The accepted numbers can be the same or a subset of the list of numbers originally specified in the port request but cannot include any numbers that were not present in that request. Furthermore, if the original port request was for a number range, this may not be changed, i.e., only acceptance or rejection of the entire number range is allowed. To accept porting of an individual number or number range, the donor operator sends the response with the included flag set to "1". To reject porting of a number or number range, the donor operator sends the response with the included flag set to "0".

(19) **Port Notification Transaction**

(a)   Purpose of transaction

The recipient operator must use the port notification transaction to notify the Donor Operator when a physical port will take place.

This transaction can also be used by the recipient to cancel a port.

(b)   Originator

 Recipient Operator.

(c)   Intended for

Donor and Recipient Operator.

(d)   Time constraints

The Recipient Operator must send a port notification within the Port Notification Time, or else the Port will be cancelled by the CRDB.

(e)   Individual process or managed process

The transaction is applicable to all port processes.

(f)   Information inherent in transaction

The recipient Operator must supply the following information as part of the port notification:

• Unique port identification number;

• List of geographic and non-geographic numbers or number range that is to be ported;

- Include flag per number or number range, indicating inclusion or exclusion for the port; and

- The date and time when porting is to occur. This time may not exceed the Deferred Porting Time in the future.

(20) **Port Activated Transaction**

    (a)   Purpose of transaction

    The recipient operator must use the port activation transaction to notify the CRDB of the numbers that have been successfully activated.

    (b)   Originator

    Recipient operator.

    (c)   Intended for

    CRDB.

    (d)   Time constraints

    The recipient operator must send a Port Activation message to the CRDB as soon as possible after activation of the ported numbers but not later than the next NST after the activation.

    (e)   Individual process or managed process

    The transaction is applicable to all port processes.

    (f)   Information inherent in transaction

    The recipient operator must supply the following information to the CRDB as part of a Port Activation message:

- Unique port identification number;

- List of geographic and non-geographic numbers or number range included in the port; and

- Include flag, per number or number range, indicating activation of the numbers/range for the port.

(21) **Port Activated Broadcast**

    (a)   Purpose of transaction

        The CRDB notifies all operators of the numbers that have been successfully ported.

    (b)   Originator

        CRDB.

    (c)   Intended for

        All operators

    (d)   Time constraints

        CRDB will send the transaction immediately after the Port Activated message is received from the Recipient Operator.

    (e)   Individual process or managed process

        The transaction is applicable to all port processes.

    (f)   Information inherent in transaction

        The CRDB must supply the following information as part of the message:

- Unique port identification number;

- List of geographic and non-geographic numbers or number range included in the port;

- The Donor Network Operator; and

- The Recipient Network Routing Label.

(22) **Port Deactivated Transaction**

    (a)   Purpose of transaction

        The donor operator must send a port deactivated transaction to notify the CRDB that the ported numbers have been de-activated on the donor operator's network.

    (b)   Originator

        Donor operator.

(c)   Intended for

Recipient operator.

(d)   Time constraints

The donor operator shall send a port deactivation notification to the CRDB as soon as possible after an individual or range of geographic and non-geographic numbers has been deactivated on its network, but by no later than within the Port Deactivation Timer.

(e)   Individual process or managed process

The port deactivation notification transaction process is applicable to all port processes.

(f)   Information inherent in transaction

The donor operator must include the following information in a port deactivation notification:

- Unique port identification number; and

- List of all numbers or the number range in the port. When a range of numbers is ported, the numbers are not listed separately. The state of all numbers in the range must be the same.

(23) **Port Routing Updated Transaction**

(a)   Purpose of transaction

All other Operators involved in Direct Routing send a Port Routing Updated Message within the Routing Update Time to the CRDB confirming that they have updated their routing tables. Operators not involved in direct routing will respond that they have noted the routing update.

(b)   Originator

All other Network operators

(c)   Intended for

CRDB.

(d)   Time constraints

Operators shall respond within the Routing Update Timer.

(e)   Individual process or managed process

Applicable to all port processes.

(f)   Information inherent in transaction

The operators must include the following information in a port routing updated notification:

- Unique port identification number;

- List of all numbers or number range in the Port. When a range of numbers is ported, the numbers are not listed separately. The state of all numbers in the range must be the same.
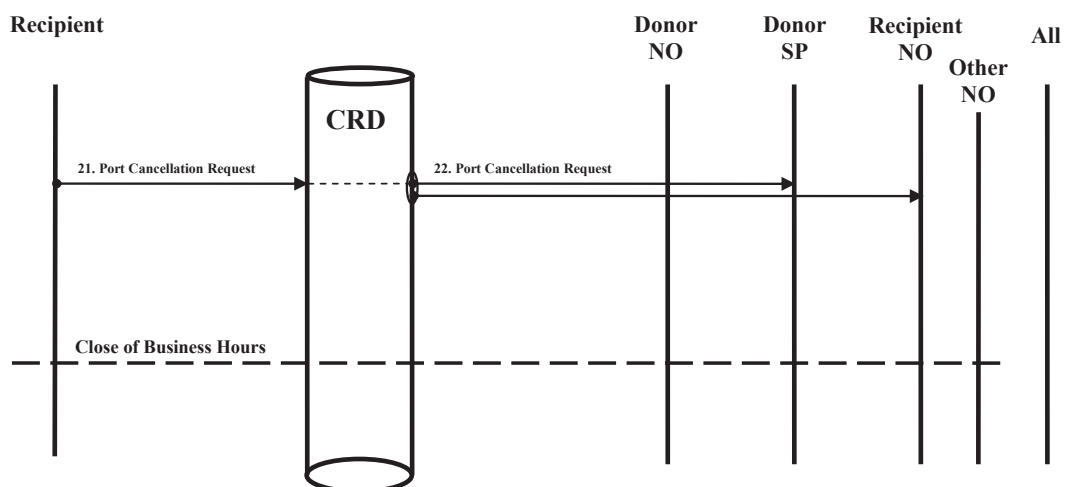
Figure 3: Schematic Illustration – Port Cancellation Process

(24) **Port Cancellation Transaction**

(a)   Purpose of transaction

The recipient Operator must use the port cancellation transaction process to notify the donor operator that one or more numbers or the number range for a port request has been cancelled by a subscriber. The recipient Operator must retain proof of this request from the subscriber. This message can only be sent after a Port Notification message, ordering the port, has been sent and before a

Port Activated message, activating the port, is sent from the Recipient network operator.

(b)　Originator

Recipient Operator.

(c)　Intended for

Donor Operator.

(d)　Time constraints

The recipient operator may only use this transaction after Port Notification and before Port Activation.

(e)　Individual or managed process

The port cancellation transaction process applies to all port processes. For the managed process, communication of the cancellation must be provided to the project team, but the transaction will still be processed by the recipient operator through the CRDB as an audit trail. The Port cancellation can only be used to cancel the port after the port notification was sent and before a port activated message is received.

(f)　Information inherent in transaction

The recipient operator must give the donor operator the following information:

- Unique port identification number, as per the original Port Request message;

- List of geographic and non-geographic numbers or number range that was included in the original port request;

- Include flag, per number or number range, indicating whether the number/range stays ordered or is cancelled for the port; and

- Reason for cancellation.
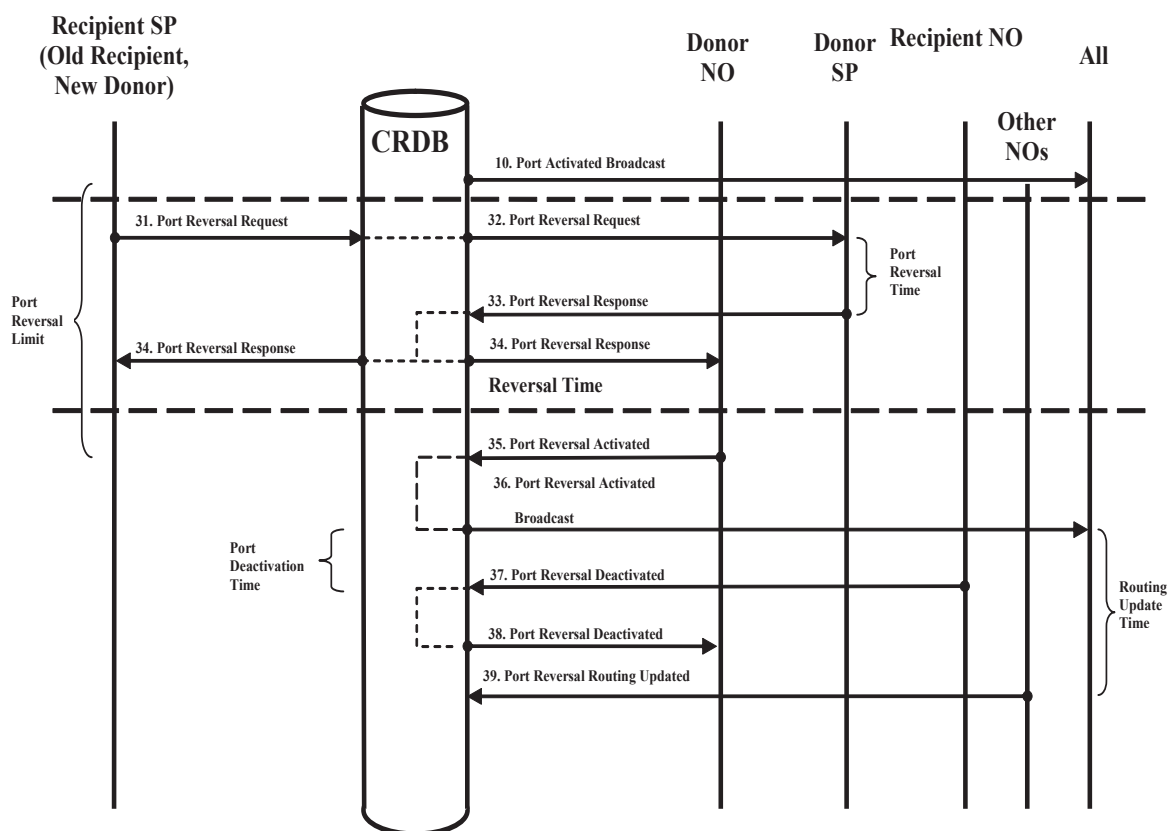
Figure 4 Schematic Illustration – Port Reversal process

(25) **Port Reversal Request Transaction**

    (a)   Purpose of transaction

This transaction will only be used if it is discovered that the port was invalid.

A reversal must be agreed to by the donor operator, the recipient operator and the subscriber.

The reversal can only be done based on a Port Activated messages i.e. the numbers to be reversed must have been ported in one Port Request.

A reversal is also subject to the continued availability of the previous network infrastructure on the Donor Operators network. If the infrastructure has been re-assigned in terms of normal business processes, then the reversal may only take place subject to normal provisioning processes.

(b)   Originator

Recipient operator.

(c)   Intended for

Donor operator.

(d)   Time constraints

A port reversal request and subsequent activities up to and including Message 35 Port Reversal Activated must be completed within the Port Reversal Limit subsequent to the physical porting of the ported numbers.

(e)   Individual process or managed process

The port reversal transaction process is applicable to all port processes.

(f)   Information inherent in transaction

The operator originating the transaction must supply the following information to the other operator:

- Unique port identification number as per the original Port Request message.

- Reason for port reversal request.

- List of ported numbers or number range to be reversed. This must be the same list of numbers or number range or a subset of the relevant Port Activated message.

- Include flag, per number or number range, indicating the number/range to be reversed or not to be reversed for the port.

(26) **Port Reversal Response**

(a)   Purpose of transaction

Response by the Donor that the reversal is accepted and may proceed or rejected and may not proceed.

(b)   Originator

Donor Operator.

(c)   Intended for

Recipient Operator

(d)   Time constraints

A Port Reversal Response must be submitted within timer Port Reversal Time.

(e)   Individual process or managed process

The port reversal transaction process is applicable to all port processes.

(f)   Information inherent in transaction

The donor operator originating the transaction must supply the following information to the recipient operator:

- Unique port identification number as per the original Port Request message.

- List of ported numbers or number range to be reversed. This must be the same list of numbers or number range as the relevant Port Reversal Request message.

- Include flag, per number or number range, indicating the number/range to be reversed or not to be reversed for the port, exactly as specified in the port reversal request.

- Response, indicating acceptance or rejection of the port reversal

(27) **Port Reversal Activated Transaction**

(a)   Purpose of transaction

The donor operator must use the port reversal activation transaction to notify the CRDB that the numbers/number range have been successfully reactivated.

(b)   Originator

Donor operator.

(c)   Intended for

CRDB.

(d)　Time constraints

The donor operator must send a Port Reversal Activation message to the CRDB as soon as possible after reactivation of the ported numbers/number range but not later than the next NST after the reactivation.

(e)　Individual process or managed process

The transaction is applicable to all port processes.

(f)　Information inherent in transaction

The donor operator must supply the following information to the CRDB as part of a Port Reversal Activation message:

- Unique port identification number as per the original Port Request message.

- List of geographic and non-geographic numbers or number range, i.e., the same list of numbers/number range included in the Port Reversal Request.

- Include flag per number or number range indicating activated or not activated for the port reversal.

(28) **Port Reversal Activated Broadcast**

(a)　Purpose of transaction

The CRDB notifies all network operators and SPs of the numbers that have been successfully reversed.

(b)　Originator

CRDB.

(c)　Intended for

All operators

(d)　Time constraints

CRDB will send the transaction immediately the Port Reversal Activated message is received from the Donor Operator.

(e)   Individual process or managed process

The transaction is applicable to all port processes.

(f)   Information inherent in transaction

The CRDB must supply the following information as part of the message:

- Unique port identification number as per the original Port Request message.

- List of geographic and non-geographic numbers or number range included in the Port Reversal Request.

- The Recipient Network Operator,

- The Donor Network Routing Label.

(29) **Port Reversal Deactivated Transaction**

(a)   Purpose of transaction

The recipient operator must send a port reversal deactivated transaction to notify the CRDB that a port number has been de-activated on the recipient operator's network.

(b)   Originator

Recipient operator.

(c)   Intended for

Donor operator.

(d)   Time constraints

The recipient operator shall send a port reversal deactivation notification to the CRDB as soon as possible after an individual or range of geographic and non-geographic numbers has been deactivated on its network, but by no later than the Port Deactivation Timer.

(e)   Individual process or managed process

The port deactivation notification transaction process is applicable all port processes.

(f)   Information inherent in transaction

The donor operator must include the following information in a port deactivation notification:

- Unique port identification number as per the original Port Request message.

- List of all numbers/number range in the reversal and the status of each such number. When a range of numbers is ported, the numbers are not listed separately. State of all numbers in the range must be the same.

(30) **Port Reversal Routing Updated Transaction**

(a)   Purpose of transaction

All other Operators involved in Direct Routing send a Port Reversal Routing Updated Message within the Routing Update Time to the CRDB confirming that they have updated their routing tables. Operators not involved in direct routing will respond that they have noted the routing update.

(b)   Originator

Other operator

(c)   Intended for

CRDB.

(d)   Time constraints

Operators shall respond within the Routing Update Timer.

(e)   Individual process or managed process

Applicable all port processes.

(f)   Information inherent in transaction

The operators must include the following information in a port reversal routing updated notification:

- Unique port identification number as per the original Port Request message.

- List of all numbers/number range in the reversal and the status of each such number. When a range of numbers is ported, the numbers are not listed separately. State of all numbers in the range must be the same.
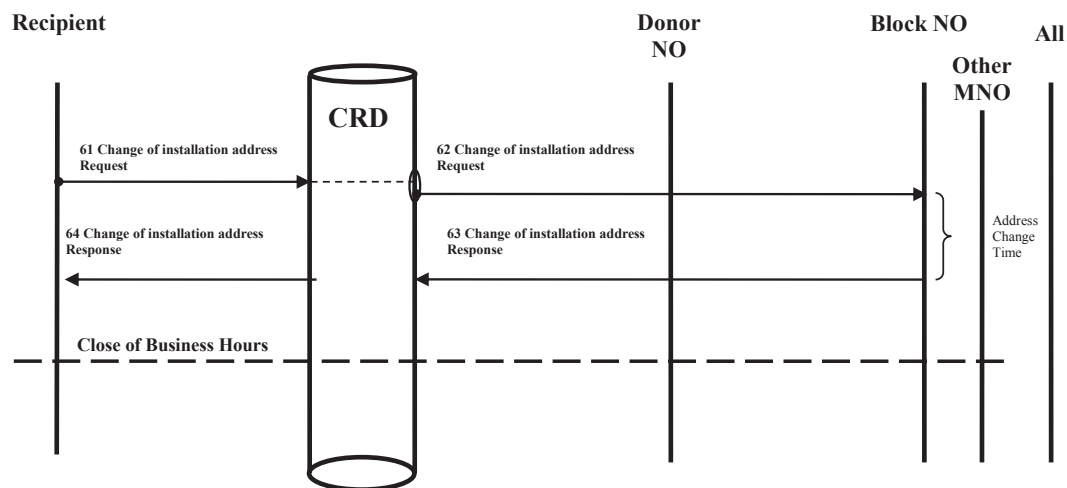
Figure 5 Schematic Illustration – Change of Installation Address Process

(31) **Change of Installation Address Request**

(a) Purpose of transaction

This transaction will be used if numbers/number range is to be transferred (i.e. the installation address is to be changed). The purpose is to ensure that the numbers/number range remains within the exchange code area of the block operator.

(b) Originator

Recipient operator.

(c) Intended for

Block Operator

(d) Time constraints

None

(e) Individual process or managed process

This transaction process is applicable to all port processes.

(f)   Information inherent in transaction

The recipient operator originating the transaction must supply the following information to the block operator:

- Unique port identification number.

- List of numbers/number range for which an installation address is to be changed.

- Proposed new installation address.

(32) **Change of Installation Address Response**

(a)   Purpose of transaction

Response from Block Operator approving or rejecting the installation address change request

(b)   Originator

Block Operator.

(c)   Intended for

Recipient Operator.

(d)   Time constraints

Within the Address Change Timer from receipt of the request

(e)   Individual process or managed process

Applicable to all port processes.

(f)   Information inherent in transaction

The block operator must supply the following information to the recipient operator:

- Unique port identification number.

- List of geographic and non-geographic numbers or a range of geographic and non-geographic numbers that are the subject of the change of installation address, i.e., the same list of numbers or number range from the change of installation address request.

- Include flag, per number or number range, indicating acceptance or rejection of the number/range for the change of installation address.
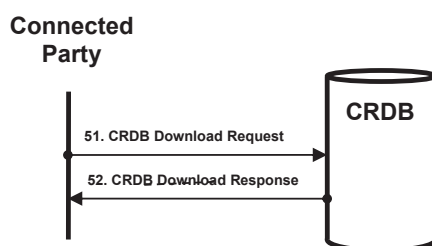
Figure 6 Schematic Illustration – CRDB Download Process

(33) CRDB Download Request Transaction

(a)   Purpose of transaction

The CRDB download request transaction process allows any authorised user of the CRDB to submit a request to the CRDB for either a full or delta download.

(b)   Originator

 Any authorised user of the CRDB and/or subscriber.

(c)   Time constraints

None.

(d)   Intended for

CRDB.

(e)   Individual process or managed process

The CRDB download process applies to both individual processes and managed processes.

(f)   Information inherent in transaction

The person originating the transaction must supply the following information to the CRDB:

- Download type (full download or delta download).

- Number type (mobile numbers or geographic and non-geographic numbers).

- Start date (for delta download)

- End date (for delta download)

- Media Type.

(34) **CRDB Download Response Transaction**

    (a)   Purpose of transaction

        This transaction defines the process in terms of which the CRDB must respond to a CRDB download request.

    (b)   Originator

        CRDB.

        Intended for

        Any authorised user of the CRDB who submits a CRDB download request to the CRDB.

    (c)   Time constraints

        None.

    (d)   Individual process or managed process

        The CRDB download response transaction is applicable to both individual processes and managed processes.

    (e)   Information inherent in transaction

        The CRDB must include the following information in a CRDB query response:

- In circumstances where the information pertaining to the CRDB query is too bulky to be sent electronically to the recipient, the CRDB must send a message to the person originating the transaction advising that person that such information can be downloaded online from some centrally accessible point.

- In all other circumstances the CRDB must electronically send the information directly to the person originating the transaction.
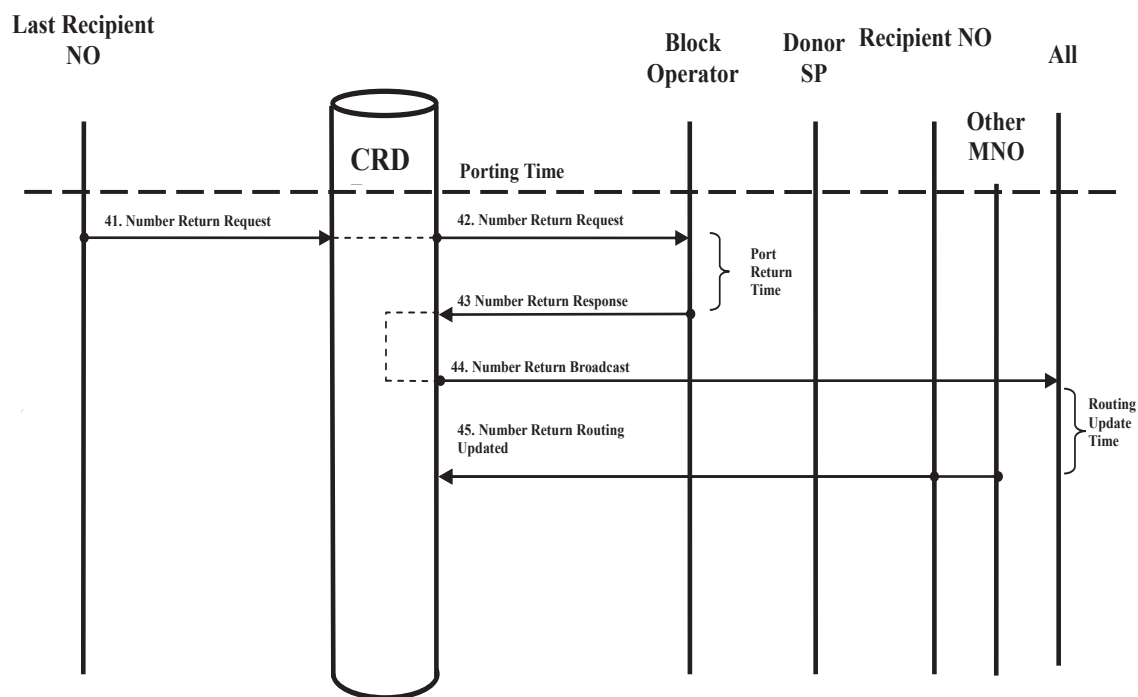
Figure 7 Schematic Illustration – Return to Block Operator process

(35) **Number Return Request**

    (a)   Purpose of transaction

        Recipient operator returns number to block operator after deactivation of service.

    (b)   Originator

        Recipient operator.

    (c)   Intended for

        Block operator.

    (d)   Time constraints

        As soon as possible after deactivation of the number(s) on the recipient operator's network, but in any event by no later than the end of the day after such deactivation. The Block Operator will quarantine the numbers for a three (3)-month period.

(e)   Individual process or managed process

This transaction is applicable to all port processes.

(f)   Information inherent in transaction

The recipient operator must supply the following information to the block operator:

- Unique port identification number; and
- Number or range of numbers being returned

(36) **Number Return Response**

(a)   Purpose of transaction

Block operator acknowledges receipt of returned number.

(b)   Originator

Block operator.

(c)   Intended for

CRDB.

(d)   Time constraints

Within the Port Return Timer

(e)   Individual process or managed process

This transaction is applicable to all port processes.

(f)   Information inherent in transaction

The block operator must supply the following information to the CRDB:

- Unique port identification number; and
- Numbers or range of numbers being returned

(37) **Number Return Broadcast**

(a)   Purpose of transaction

The CRDB notifies all operators of the numbers/number range that have been successfully returned.

(b)   Originator

CRDB.

(c)   Intended for

All operators.

(d)   Time constraints

CRDB will send the transaction immediately after the Port Number Return Response message is received from the Block Operator.

(e)   Individual process or managed process

The transaction is applicable to all port processes.

(f)   Information inherent in transaction

The CRDB must supply the following information as part of the message:

- Unique port identification number.
- List of geographic and non-geographic numbers or number ranges included in the return.
- Block Operator.

(38) **Number Return Routing Updated Transaction**

(a) Purpose of transaction

All Operators involved in Direct Routing send a Number Return Routing Updated Message within the Routing Update Time to the CRDB confirming that they have updated their routing tables. Operators not involved in direct routing will respond that they have noted the routing update.

(b) Originator

All operators.

(c) Intended for

CRDB.

(d) Time constraints

Operators shall respond within the Routing Update Timer.

(a)   Individual process or managed process

Applicable all port processes.

    (b)   Information inherent in transaction

The operators must include the following information in a number return routing updated notification:

- Unique port identification number.

- List of all numbers/number range in the number return and the status of each such number. When a range of numbers is ported, the numbers are not listed separately. State of all numbers in the range must be the same.

11. Port Timers

All timers referred are times during business hours.

NAME	VALUE	DESCRIPTION
Port Authorisation Time (Individual process)	16 hours	The maximum time between the CRDB sending the Port Request to the Donor and the CRDB receiving the Port Response from the Donor, for an individual port process
Port Authorisation Time (Managed Process)	40 hours	The maximum time the Donor may take, for a managed process, to obtain confirmation that the porting is authorized, measured from the time of the Port Request.
Deferred Porting Time (Individual process)	31 calendar days	The maximum deferred porting time. Calculated from when the Recipient sends the Port Notification.
Deferred Porting Time (Managed process)	60 calendar days	The maximum deferred porting time. Calculated from when the Recipient sends the Port Notification.

NAME	VALUE	DESCRIPTION
Deferred Termination Time (Individual process)	34 days (Deferred Porting Time + 3 days)	Three-day grace period before the CRDB will terminate a Port Request and Activation process if the Port Activated message did not arrive before the Deferred Porting Time
Deferred Termination Time (Managed process)	63 days (Deferred Porting Time + 3 days)	Three-day grace period before the CRDB will terminate a Port Request and Activation process if the Port Activated message did not arrive before the Deferred Porting Time
Port Deactivation Time	1 hour	The amount of time specified to remove a Subscriber from active service on a network. Measured from when the CRDB sends the Port Activated Broadcast Message 10 or the Port Reversal Activated Broadcast Message 36.
Port Notification Time (Individual process)	40 hours	The maximum time between the Recipient receiving the Port Response (Message 6) and the Recipient sending the Port Notification. CRDB will terminate the port if this timer is exceeded.
Port Notification Time (Managed process)	80 hours	The maximum time between the Recipient receiving the Port Response (Message 6) and the Recipient sending the Port Notification. CRDB will terminate the port if this timer is exceeded.
Ported Lock Time	1 months	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 Recipient receiving 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 Recipient during Porting Hours but not more than 1 month after the Porting Time. Note: this timer is subject to the infrastructure restrictions mentioned above
Port Reversal Time	16 hours	The maximum time between the CRDB sending the Port Reversal Request to the Donor and the CRDB receiving the Port Reversal Response from the Donor.
Response SPID Time	5 minutes	The maximum time in which the Donor Operator responds with the Service Provider Identification to the CRDB
Routing Update Time	1 hour	The maximum time in which all Operators involved in Direct Routing must confirm to the CRDB that the new call routing has been affected. Measured from when the CRDB sends the Port Activated Broadcast Message 10, 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.

12. VALID REASON CODES

A Port Request may only be rejected for the following reasons:

13. Messages

The following business rules will apply to ensure operational efficiency:

(1) A range is a single entity, and once porting activities have commenced must remain an entity.

(2) During the porting process, all transactions on a range are "accept all" or "reject all" transactions, i.e. no partial acceptance/rejections/etc on subsets of a range are allowed.

(3) A Range may not be split into sub-ranges or merged into larger ranges during the porting process.

(4) A Range is used for porting a set of consecutive numbers.

(5) A Port Request and all following messages may contain either a single range or a list of individual numbers.

(1)   General Message Header

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

MESSAGE NAME / FIELD	TYPE	COMMENT
Reference / Porting ID	M	YYYYMMDD+hhmmss+Participant ID+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 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	Participant ID of the party sending the Message
Receiver of Message	M	Participant ID of the party receiving the Message

MESSAGE NAME / FIELD	TYPE	COMMENT
Port Application Form ID	O	For Internal Use Only

Note: The originator of a message will populate the Receiver of Message field with the Participant ID of the CRDB. The CRDB will replace the Receiver of Message field with the Participant ID of the destination of the message.

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

(2)   Port Request and Activation Process

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 ()	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 Donor validation

1. PORT REQUEST	TYPE	COMMENT
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 Spid	TYPE	COMMENT
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 Spid	TYPE	COMMENT
Participant ID	C	Id for the SP currently 'owning' the subscriber
Error Code	C	

4. PORT REQUEST	TYPE	COMMENT
Same as Message 1		

5. PORT RESPONSE	TYPE	COMMENT
Number (n) of DN Ranges	M	Number of original ranges requested

5. PORT RESPONSE	TYPE	COMMENT
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 indicate 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 Donor contains the information as required by the Regulation for Interception of Communications Act
↓	C	Repetitive field
DNfrom n	C	
DNto n	C	
Include Flag n	C	Code to indicate Flag value 1 indicate request for DN range n is authorised Flag value 0 indicate 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 Donor contains the information as required by the Regulation for Interception of Communications Act
Contact Person	C	If Managed then M
Contact Phone Number	C	If Managed then M
DNO	M	Donor Network Operator
DSP	M	Donor Service Provider

6. PORT RESPONSE	TYPE	COMMENT
Same as Message 5		

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 indicate DN Range is ordered
		Flag value 0 indicate DN Range is declined
↓	C	Repetitive field
DNfrom n	C	Repetitive field
DNto n	C	Repetitive field
Include Flag n	C	Flag value 1 indicate DN Range is ordered
		Flag value 0 indicate 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
Same as Message 7		

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 indicate DN Range is activated
		Flag value 0 indicate DN Range is not activated

9. PORT ACTIVATED	TYPE	COMMENT
↓	C	Repetitive field
DNfrom n	C	Repetitive field
DNto n	C	Repetitive field
Include Flag n	C	Flag value 1 indicate DN Range is activated Flag value 0 indicate DN Range is not activated

10. PORT ACTIVATED BROADCAST	TYPE	COMMENT
Donor Network	M	Donor Network Operator Participant ID. Must be inserted by the CRDB
Recipient Network Routing Label	M	Routing Label (D000, D007). Must be inserted by the CRDB.
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
Same as Message 11		

13. PORT ROUTING UPDATED	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

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

(3)   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 indicate DN Range stays ordered
		Flag value 0 indicate DN Range is cancelled
↓	M	Repetitive field

21. PORT CANCELLATION REQUEST	TYPE	COMMENT
DNfrom n	C	Repetitive field
DNto n	C	Repetitive field
Include Flag n	M	Flag value 1 indicate DN stays ordered Flag value 0 indicate DN 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
Same as Message 21		

ADDITIONAL MESSAGES		
Messages 23 – 30 are not used but reserved for future use.		

    (4)   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 indicate DN Range is to be reversed Flag value 0 indicate DN Range is not to be reversed

31. PORT REVERSAL REQUEST	TYPE	COMMENT
↓	M	Repetitive field
DNfrom o	C	Repetitive field
DNto o	C	Repetitive field
Reversal Flag o	M	Flag value 1 indicate DN is to be reversed Flag value 0 indicate DN is not to be reversed
Port Reversal Reason Code	M	Reporting. Malicious, Fraudulent, 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
Same as Message 31		

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 indicate DN Range is to be reversed Flag value 0 indicate DN Range is not to be reversed
↓	C	Repetitive field
DNfrom o	C	Repetitive field

33. PORT REVERSAL RESPONSE	TYPE	COMMENT
DNto o	C	Repetitive field
Reversal Flag o	C	Flag value 1 indicate DN is to be reversed Flag value 0 indicate 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
Same as Message 33		

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 indicate DN Range is to be reversed Flag value 0 indicate 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 indicate DN is to be reversed

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

36. PORT REVERSAL ACTIVATED BROADCAST	TYPE	COMMENT
Recipient Network Operator	M	Recipient Network Operator Participant ID. Must be inserted by the CRDB.
Donor Network Routing Label	M	Routing Label (D000, D007). Must be inserted by the CRDB.
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
Same as Message 37		

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		
Message 40 are not used but reserved for future use.		

(5)   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

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		
Messages 46 – 50 are not used but reserved for future use.		

(6)   CRDB Download Process

51. CRDB 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. CRDB 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.		

(7)   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	

61. CHANGE OF INSTALLATION ADDRESS REQUEST	TYPE	COMMENT
DNto 1	C	
↓	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
Same as Message 61		

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 indicate Change of Installation Address accepted Flag value 0 indicate 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 indicate Change of Installation Address accepted Flag value 0 indicate Change of Installation Address rejected

64. CHANGE OF INSTALLATION ADDRESS RESPONSE	TYPE	COMMENT
Same as Message 63		

(8)   Emergency Notification Process

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

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

83. RESTORE NOTIFICATION	TYPE	COMMENT
Party restored	M	Participant ID

84. RESTORE NOTIFICATION BROADCAST	TYPE	COMMENT
Party restored	M	Participant ID

ADDITIONAL MESSAGES		
Messages 85 – 89 are not used but reserved for future use.		

(9)   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		
Messages 90 – 97 are not used but reserved for future use.		

Geographic Number Portability Ordering System Specification

Figure 8

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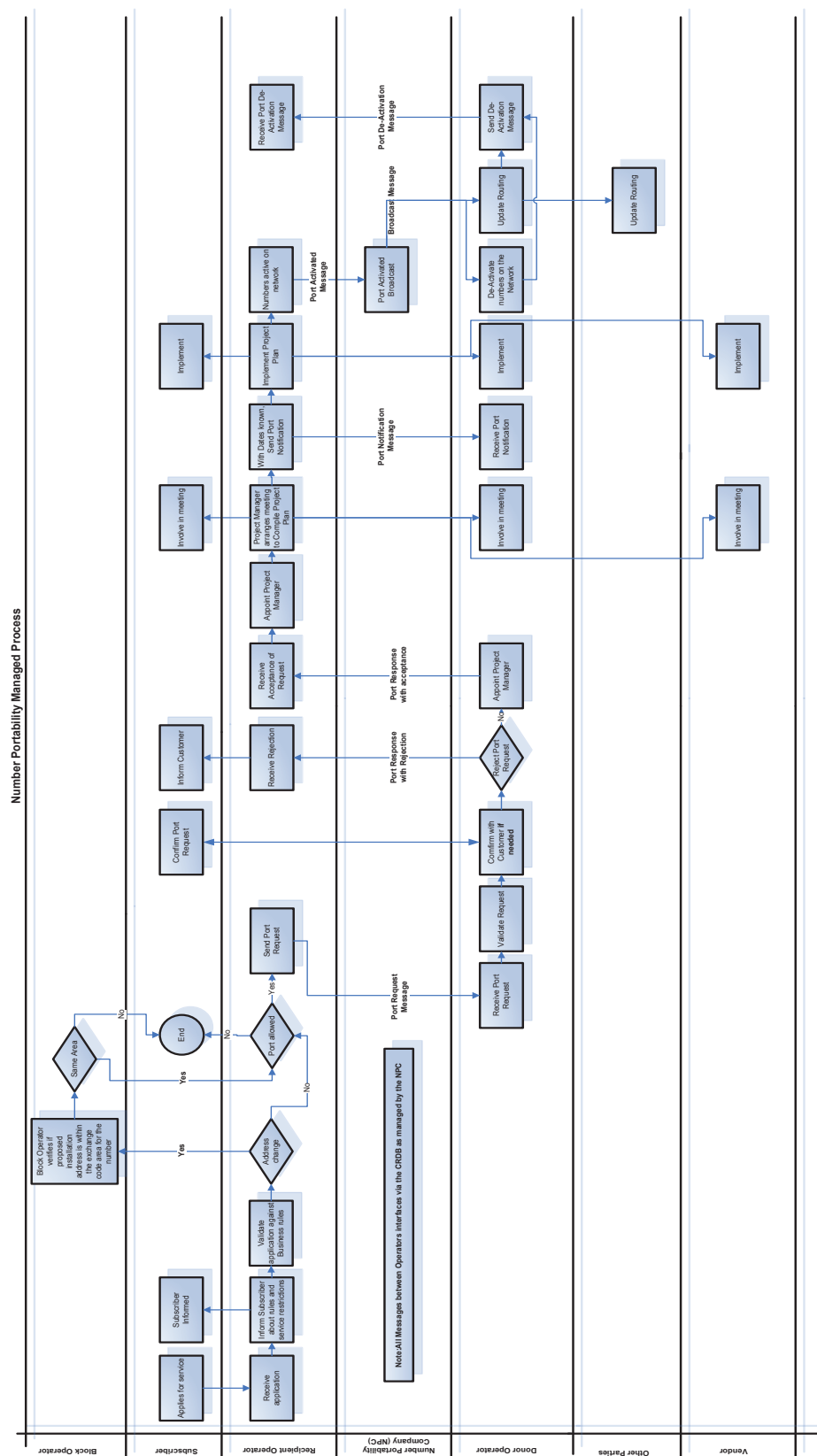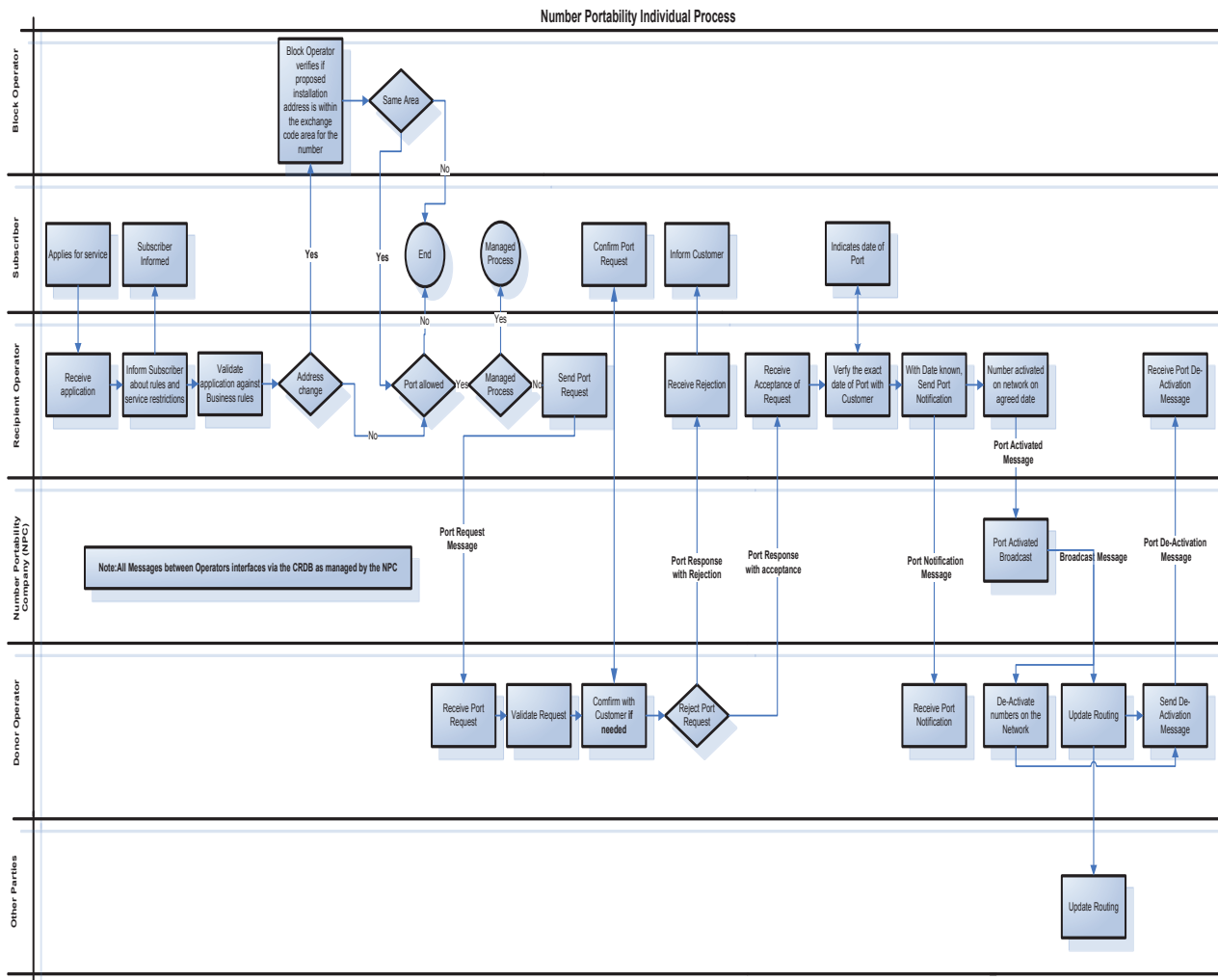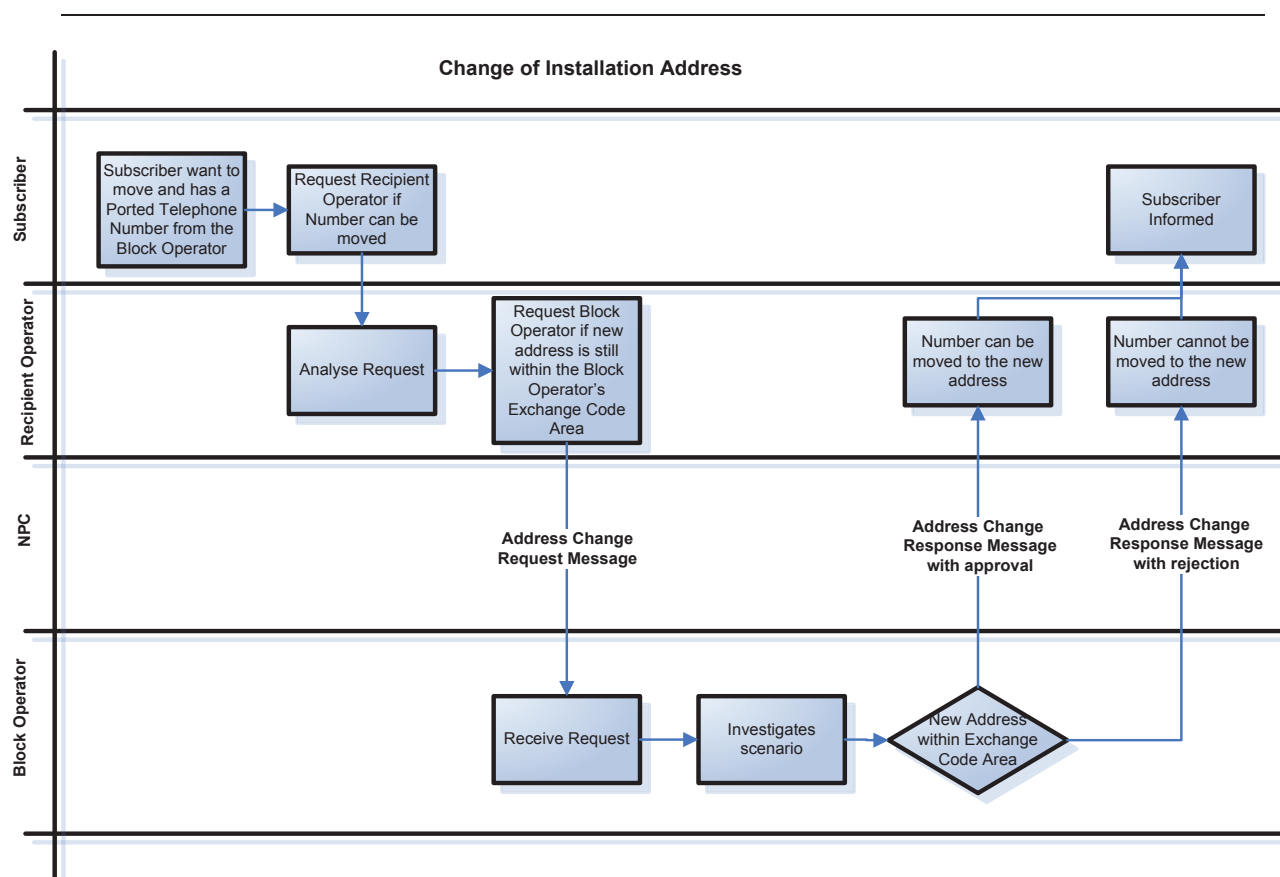
Figure 9

Figure 10

11 SECTION B: MOBILE NUMBER PORTABILITY

1) A Subscriber wishing to port must lodge the request to port with the Recipient.

2) The Donor operator shall validate a mobile number porting request by means of a onetime pin (OTP). The OTP shall be valid for four (4) hours, after which if no response to the OTP is sent, the port request is rejected.

3) The OTP shall be structured as follows: "*(Donor operator name) has received a request from (Recipient operator name) to port this number: (subscriber number). If this information is correct, please send the following OTP: xxxxx. This OTP is valid for 4 hours, after which failure to respond to this message, shall result with the port request being rejected.*".

4) The above contemplated OTP must be sent within the normal business hours.

5) 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 Recipient sends the Port Notification.

6) The Recipient must advise the Subscriber of the terms and conditions applicable to the port and the new services provided by the Recipient. These must be stipulated on the application form to be completed by the subscriber.

7) The Subscriber must always retain the ability to make and receive calls. The Subscriber must be active on the Recipient Network before being deactivated on the Donor Network.

8) Activation and deactivation of subscribers on the networks shall only take place during Network Synchronisation Time.

9) For a Port Reversal process, Activation and Deactivation of Subscribers can take place during Network Synchronisation Time, and during Business Hours.

10) MNP Processes

   The MNP Processes consist of the following separate processes:

   I.   Port Request, verification and Activation;
   II.   Port Cancellation
   III. Port Reversal
   IV.   Return to Block Operator
   V.   CRDB Download
   VI.   Emergency Notification.

(11) The schematic illustrations included in each process detail where the Message starts and ends, i.e. at the Donor or the Recipient. Each process also includes a detailed process description with associated business rules, and escalation procedures.

(12) Whenever a party receives a Message out of synch with the normal process flow, such Message will be rejected with a general error message including an error code.

(13)　　Schematic illustration
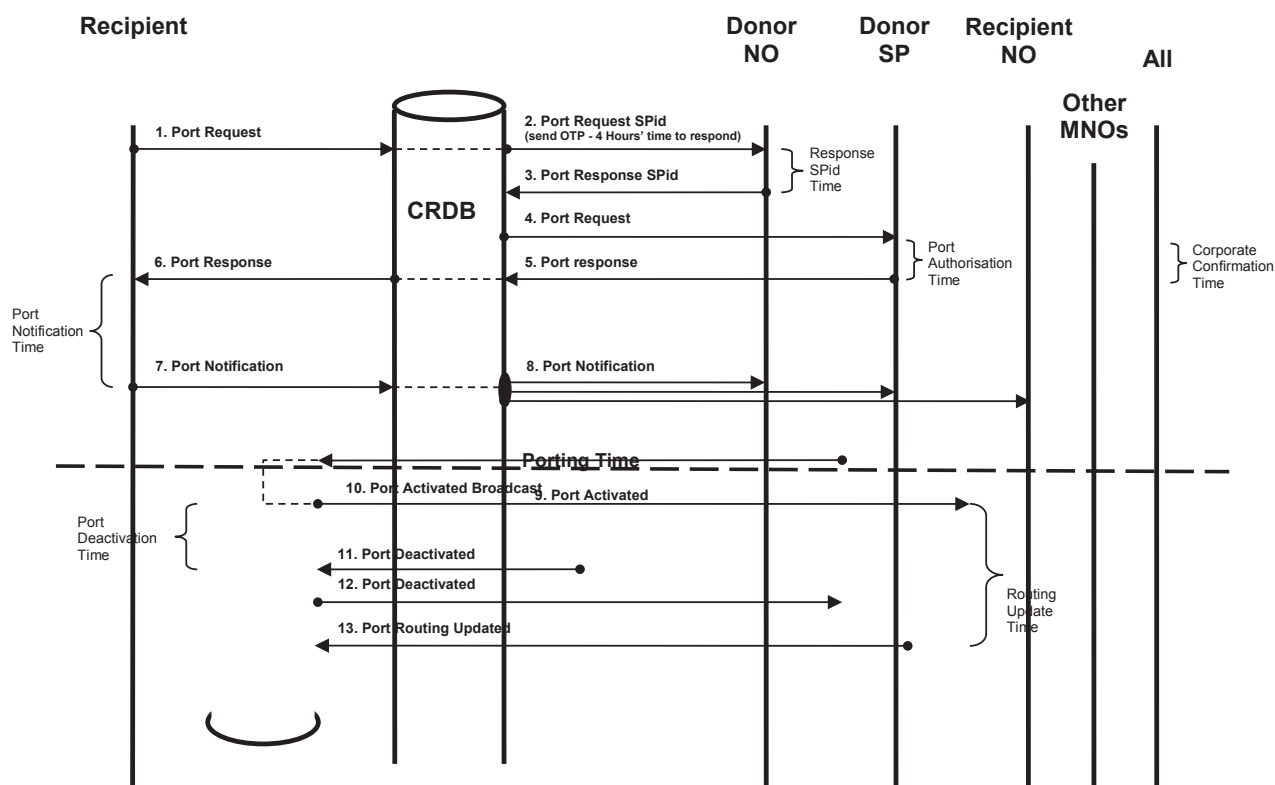
(14)　　Figure 12

(1)　　Port Request and Activation Steps

Message 1 – Port Request

The Recipient shall perform a CLI (Prepaid Subscriber) check of possession of the MSISDN or obtain the Account Number and Account Holder Identification Number (Post-paid Subscriber) from the Subscriber prior to issuing a Porting Request. Where the Account Holder is a Corporate Entity, the Recipient shall obtain the MSISDN, Identification Number of the Requestor, Account Number and Corporate Registration Number.

(2)　　As per sections 2.3 and 2.4 of the FSS the Recipient shall advise the Subscriber, who has requested a port, of the following:

(a)   The Subscriber must collect any messages and information stored by the Donor. These may be lost during the port process.

(b)   Any remaining credit and unused usage allowances is not transferable from the Donor.

(c)   That the Recipient may not support services available on the Donor and therefore certain services may not be available on the Recipient.

(3)   The Recipient sends a Port Request Message to the CRDB.

(4)   The name and address of the Subscriber must not be passed between Recipient and Donor.

(5)   The CRDB will run a check to verify if the MSISDN has been previously ported.

(6)   A Port Request may include multiple MSISDNs, but these shall belong to the same account (Post-paid or corporate), or to the same subscriber (Prepaid). A single Port Request with multiple MSISDNs cannot contain Prepaid and Post-paid MSISDNs.

(7)   A Port Request may include multiple MSISDNs, but these shall belong to the same MNO.

(8)   Should the Port Request contain multiple MSISDNs not all belonging to the same MNO, the CRDB will send the Error Message to the sender with an applicable error reason. The process will terminate, and the Recipient shall rectify the error and initiate a new Port Request.

Message 2 – Port Request SPid

(1)   The CRDB forwards the Port Request SPid (Service Provider ID) Message to the Donor Operator, to determine the current MNO.

(2)   The CRDB is responsible for forwarding the Port Request SPid Message to the MNO currently serving the Subscriber.

Message 3 – Port Response SPid

(1) A Port Response SPid Message is sent to the CRDB within the Response SPid Time indicating the MNO of the Subscriber requesting a port. The Donor Operator will send this Message to the CRDB in the case where the Donor Operator is also the Donor

(2) Should the MSISDN not belong to the Donor Operator the Donor Operator will still send Message 3 to the CRDB indicating the error code and error explanation (MSISDN is not valid on the Donor Network). The CRDB will continue the process by sending Message 6 including the rejection code (The MSISDN is not a valid number on the donor operator's network). The Recipient and Donor must manually escalate via the

Notification and Escalation process (see Annexure A) since there is potential data corruption.

Message 4 – Port Request

(1) The CRDB forwards the Port Request Message to the Service Provider as indicated in the SPid. The Service Provider can also be a Network Operator.

(2) The Port Request Message is only sent to a MNO. The destination of the Message is the current owner of the Subscriber requesting a port.

Message 5 – Port Response

(1) The Donor validates the Port Request Message according to the corresponding validation rules and sends a Port Response Message to the CRDB.

(2) The Donor further needs to evaluate the Port Request Message and determine if the request is on a Consumer account or a Corporate account.

(3) A Port Response to a Consumer account shall happen within the Port Authorisation Time, and a Port Response to a Corporate account shall happen within the Corporate Confirmation Time.

(4) In the event of multiple MSISDNs in a Port Request, the Port Response Message to the CRDB will indicate a Code for each individual MSISDN. The Code will either approve the Port Request or provide a valid rejection code for every MSISDN that is rejected.

(5) Should proof be required for the Port Request, the Donor PAR must contact the Recipient PAR. An agreement must be reached on when and how the proof should be provided.

Message 6 – Port Response

(1) The CRDB forwards the Port Response Message to the Recipient.

(2) Should the Donor reject the Port Request the Port Request and Activation Process terminates.

Message 7 – Port Notification

(1) The Recipient sends a Port Notification Message to the CRDB either ordering or declining the port. (The Recipient may decline the Port in the Port Notification Message if the Recipient no longer wishes to acquire the customer.)

(2) The Recipient must send the Port Notification Message within the Port Notification Time. Failing this, the CRDB will send the Error Message with an error code to both the Recipient and Donor indicating that the process has been terminated.

(3) Should the Recipient decide not to order the port for the Subscriber, it shall immediately send a Port Notification Message declining the port.

(4) Should the Recipient send a Port Notification Message declining the Port, the process continues with Message 8 and is then terminated.

(5) Should the Recipient send a Port Notification Message ordering the port, the process continues.

Message 8 – Port Notification

(1) Should the Port Notification Message indicate that the Recipient declines the port, the CRDB forwards the Port Notification Message to the Donor and the port process is terminated. The MSISDN then becomes available for another Port Request.

(2) Should the Port Notification Message indicate that the Recipient orders the port, the CRDB forwards the Port Notification to the Donor SP, Recipient SP, Donor NO and the Recipient NO, and the process continues.

Message 9 – Port Activated

The Recipient Network Operator must have the Subscriber active on its network and have updated its routing tables.

(1) During the Network Synchronisation Time of the requested Porting Date, the Recipient Network Operator sends a Port Activation Message to the CRDB confirming that the Subscriber has been activated on the Recipient Operator Network and its routing tables have been updated.

(2) The Subscriber will also be active on the Donor Network.

(3) All Port Activated messages received by the CRDB outside the Network Synchronisation Time will be queued and processed during the next available Network Synchronisation Time.

(4) Should the CRDB not receive a Port Activated message within the Deferred Termination Time, the CRDB will send an Error Message with an error reason to the Recipient and Donor. The process is then terminated. Should a Port Activated message be sent after the Deferred Termination Time, the CRDB will return an Error Message indicating an out of synch Message.

Message 10 – Port Activated Broadcast

(1) The CRDB sends the Port Activated Broadcast Message to all parties connected to the CRDB.

(2) From this time forward the Subscriber is ported.

(3) On reception of the Port Activated Broadcast Message, the Donor Network Operator takes the necessary steps to deactivate the Subscriber from its network and update its routing tables.

(4) The DNO shall not deactivate the Subscriber from its network before this Message is received from the Recipient.

(5) The Donor shall deactivate the Subscriber on its network and update its routing tables as soon as possible after receiving this Message 10, and within the Port Deactivation Time.

(6) The deactivation of a Subscriber may only take place after confirmation is received by the Donor from the Recipient (via the CRDB) that the Subscriber is active on the Recipient's network.

(7) 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.

(8) Although Regulation does not include Inter-SP porting, the MNO and their respective SPs can decide to use the CRDB for Inter-SP porting. In this case the process will stop after Message 10 has been sent, since no changes are required to routing information. Message 10 will only be broadcasted to the three involved parties, both SPs and the MNO.

Message 11 – Port Deactivated

(1)   Once the Donor Network Operator has deactivated the MSISDN and updated its routing tables, the Donor Network Operator sends a Port Deactivated Message to the CRDB within the Port Deactivation Time.

Message 12 – Port Deactivated

(1)   The CRDB forwards the Port Deactivated Message to the Recipient Network Operator.

Message 13 – Port Routing Updated

(1) All other Operators involved in Direct Routing send a Port Routing Updated Message within the Routing Update Time to the CRDB confirming that they have updated their routing tables.

(2) The CRDB will verify that licensees have sent this Message.

(3) Port Routing Updated Message is not dependant on the Port Deactivated Message and the CRDB will receive these messages in any sequence.

(15)   Port Cancellation Process

General Description

(1) Should there be a need for cancelling a requested port which has not yet been carried out, the Cancellation Process can be invoked.

(2) The Cancellation Process can only be initiated after the Recipient has sent the Port Notification (Message 7) and before a Network Operator has sent Port Activated (Message 9).

Schematic Illustration – Port Cancellation Process

Figure 113

Po **Recipient** tion Steps
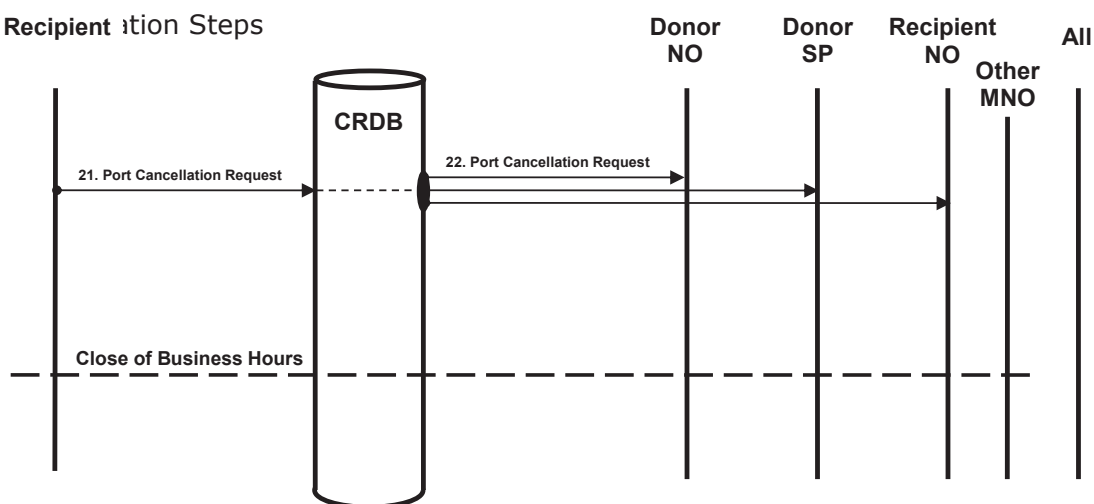
Message 21 – Port Cancellation Request

(1) The Recipient sends a Port Cancellation Request Message to the CRDB.

(2) Any subsequent Port Activated message will be rejected by the CRDB with an Error Message indicating an out of synch Message.

Message 22 – Port Cancellation Request

(1) The CRDB forwards the Port Cancellation Request Message to the Donor and the Recipient NO. The Donor is indicated by the same SPid as in the original Port Request.

(16)   Port Reversal Process

General description

(1) Should there be a need to terminate a port which has already been carried out, the Reversal Process can be invoked. To initiate this process, the Recipient and the Donor first must agree that the porting must be reversed.

(2) The Port Reversal Process may, where the respective MNO and SPs agree, also be invoked when there is a need to reverse a port to the previous SP but remain on the same MNO, retaining his/her MSISDN.

(3) The Subscriber approaches the Donor or the Recipient to reverse the port. The Party wishing to reverse the port must contact its counterpart to come to an agreement. The Recipient may only issue a Port Reversal Request when agreement has been reached between the Donor and the Recipient.

(4) The Port Reversal Process can only be initiated after the porting has been carried out and during the Port Reversal Limit after a successful port.

Schematic Illustration – Port Reversal process
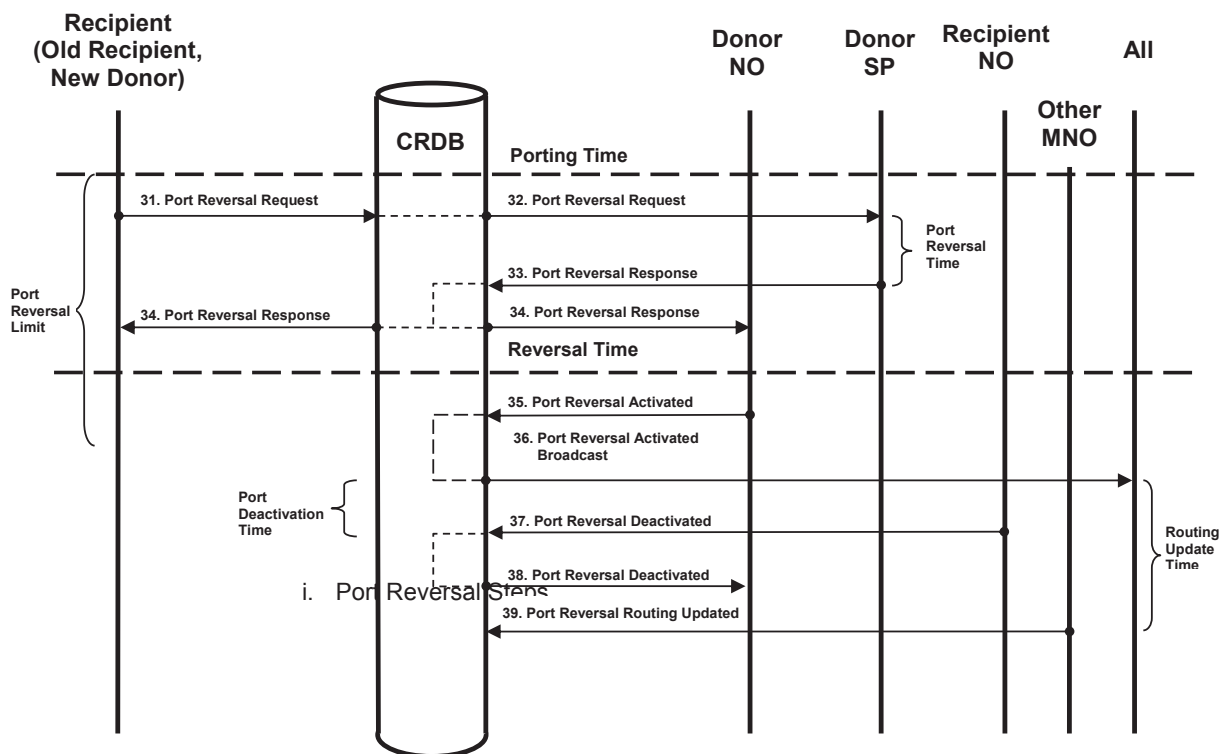
Figure 14

Message 31 – Port Reversal Request

(1) The Recipient sends a Port Reversal Request Message to the CRDB.

(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 CRDB.

Message 32 – Port Reversal Request

(1) The CRDB forwards the Port Reversal Request Message to the Donor.

Message 33 – Port Reversal Response

(1) The Donor validates the Port Reversal Request Message according to corresponding validation rules, then sends a Port Reversal Response Message, to the CRDB within the Port Reversal Time authorising the reversal of the port.

Message 34 – Port Reversal Response

(1) The CRDB forwards the Port Reversal Response Message to the Recipient and Donor NO.

Message 35 – Port Reversal Activated

The Donor Network Operator must have the Subscriber active on its network at Reversal Time and routing tables updated

(1) The Donor Network Operator sends a Port Reversal Activated Message to the CRDB confirming that the Subscriber has now once again been activated on the Donor Operator Network and its routing tables have been updated.

(2) The Subscriber will also be active on the Recipient Network.

(3) Should the CRDB not receive the Port Reversal Activated message within the Port Reversal Limit, the CRDB will send an Error Message with an error reason to the Recipient and Donor. Should a Port Reversal Activated message be sent after the Port Reversal Limit, the CRDB will return an Error Message indicating an out of synch Message.

Message 36 – Port Reversal Activated Broadcast

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

(2) On receipt of the Port Reversal Activated Message, the CRDB shall return the MSISDN to the previous status.

(3) From this time forward the port is reversed and the Donor Network provides services to the Subscriber.

(4) On reception of the Port Reversal Activated Broadcast Message, the Recipient Network Operator takes the necessary steps to deactivate the Subscriber from its network and update its routing tables.

(5) The RNO shall not deactivate the Subscriber from its network before this Message is received from the Donor.

(6) On reception of the Port Reversal 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.

(7) Although this Regulation does not include Inter-SP reversal, the MNO and their respective SPs can decide to use the CRDB for Inter-SP reversal. In this case the process will stop after Message 36 has been sent, since no changes are required to routing information. Message 36 will only be broadcasted to the three involved parties, both SPs and the MNO.

Message 37 – Port Reversal Deactivated

(1) On receipt of the Port Reversal Broadcast, the Recipient Network Operator deactivates the subscriber in the Recipient Network and updates its routing tables. This must be carried out within Port Deactivation Time.

(2) The Recipient Network Operator sends a Port Reversal Deactivation Message to the CRDB confirming that the Subscriber has been deactivated on the Recipient Operator Network and has updated its routing tables.

Message 38 – Port Reversal Deactivated

(1)   The CRDB forwards the Port Reversal Deactivation Message to the Donor Network Operator.

Message 39 – Port Reversal Routing Updated

(1)   All other Operators involved in Direct Routing send a Port Reversal Routing Updated Message to the CRDB, within the Routing Update Time, confirming that they have removed the previously ported number from their ported numbers routing table.

(17)   Return to Block Operator Process

General description

(1) As per section the Functional Specification for MNP, when service to a ported MSISDN is terminated, the Last Recipient Network Operator who was serving the MSISDN shall return the MSISDN to the Block Operator concerned.

(2) The Last Recipient Service Provider will immediately release the MSISDN to the Recipient Network Operator and not apply any quarantine rules. (This will happen through the normal deactivation instruction on the account.)

(3) Therefore, when the MSISDN is no longer active on the last Recipient's network, the last Recipient Network Operator follows its normal procedures regarding not-active MSISDNs.

(4) When the last Recipient Network Operator considers the MSISDN to be completely inactive on its network, the last Recipient Network Operator will quarantine the MSISDN and then return it to the Block Operator.

(5) The Block Operator will not quarantine the MSISDN for the Quarantine Time, before the MSISDN can be re-issued. The Return to Block Operator Process is invoked by the last Recipient Network Operator to return the previously ported MSISDN to the Block Operator i.e. the operator holding the block of MSISDNs wherein the ported MSISDN belongs.

(6) This process is invoked when service is ceased on a ported MSISDN without the MSISDN being ported again, i.e. when the Subscriber has cancelled the subscription on the ported MSISDN (Postpaid) or if the MSISDN no longer is in service (Prepaid).

Schematic Illustration – Return to Block Operator process
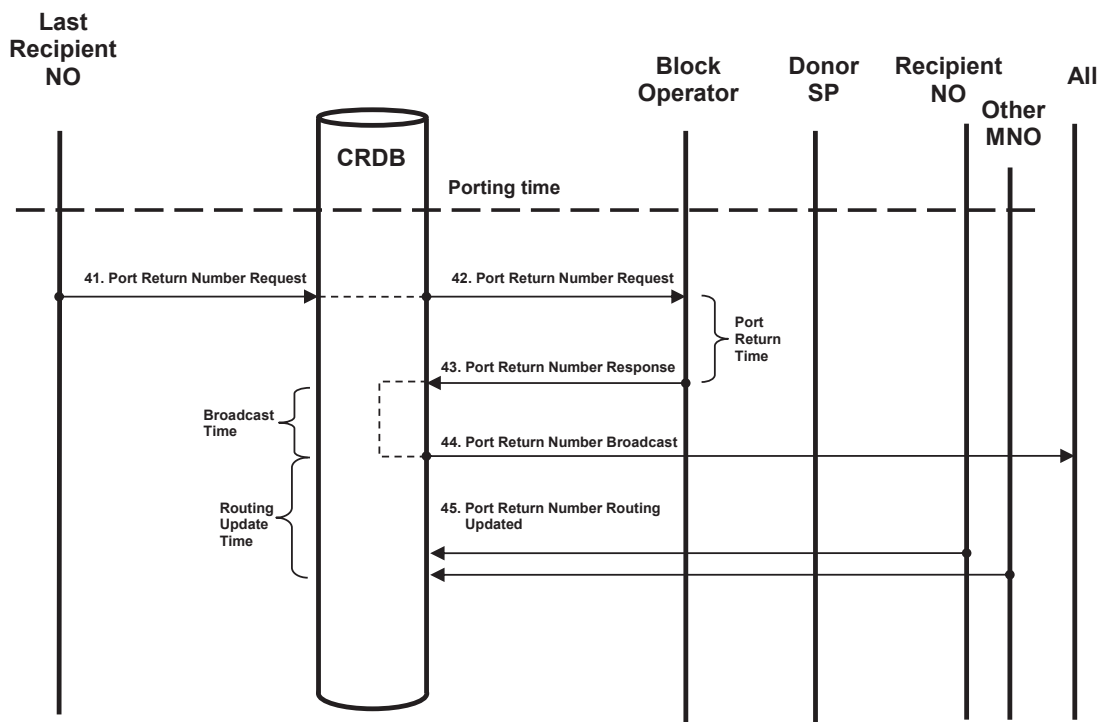
Return To Block Operator Steps 15

Message 41 – Port Return Number Request

Service to MSISDN ceased and the Number has been quarantined as per Last Recipient's internal rules.

(1) The Last Recipient Network Operator sends a Port Return Number Request Message to the CRDB requesting that the MSISDN be returned to the Block Operator.

(2) All Port Return Number Request Messages must only contain MSISDNs for a single Block Operator.

(3) The Last Recipient Network Operator must delay updating of routing tables until the Port Return Number Broadcast is received.

(4) Should there be MSISDNs that belong to more than one Block Operator in a Port Return Number Request Message, the CRDB will send back an error.

Message 42 – Port Return Number Request

(1)   The CRDB sends the Port Return Number Request Message to the relevant Block Operator.

Message 43 – Port Return Number Response

(1) Upon receipt of the Port Return Number Request Message the Block Operator validates according to corresponding validation rules 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 CRDB within the Port Return Time confirming the return of the MSISDN.

(3) In the unlikely event that a Block Operator receives a MSISDN that does not belong to the Block Operator, the Block Operator must manually escalate.

Message 44 – Port Return Number Broadcast

(1) The CRDB sends a Port Return Number Broadcast Message to all MNOs and Connected Parties, within the Port Broadcast Time, advising that the number has been returned to the Block Operator.

(2) All other Operators involved in Direct Routing remove these previously ported numbers from their routing tables.

Message 45 – Port Return Number Routing Update

(1)   All Operators involved in Direct Routing send a Port Return Number Routing Updated Message to the CRDB, within the Routing Update Time, confirming that the previously ported number was removed from their ported numbers routing table.

(18)   CRDB Download Process

General Description

(1)   The CRDB must provide the facility to enable a download of

(a)   the entire database, or

(b)   a delta from a start date and time to an end date and time.

(2)   This could be in the case of a connected party requiring a complete download, to sync a corrupt local database or to take a daily download.

(3)   The download information shall only be used in the context of Number Portability.

Figure 16: Schematic Illustration – CRDB Download Process
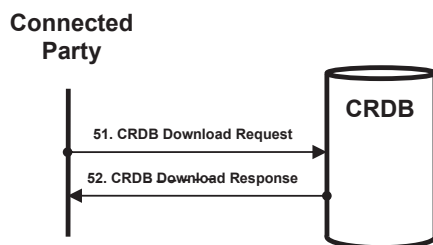
Message 51 – CRDB Download Request

(1)   The connected party requiring the download sends the CRDB Download Request to the CRDB 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).

Message 52 – CRDB Download Response

(1)   The CRDB 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.

(19)　Emergency Notification Process

General Description

(1) Whenever a Connected Party is experiencing technical problems this need to be communicated to the CRDB. The CRDB will inform all Connected parties of the party experiencing the problem.

(2) All technical problems will be labelled as either transmission, inability to update call routing tables, or as authorisation problems.

(3) The CRDB will queue all messages to the party experiencing a transmission problem but will continue to deliver messages to a party experiencing other problems.

(4) Once a transmission problem has been resolved, the CRDB will send all queued messages, maintaining the order of the messages.

(5) During such time when a Connected Party experience technical problems, the CRDB will suspend all active Port Notification Time timers for the Connected Party.

(6) When the technical problem has been resolved, such party will communicate the Restore Notification to the CRDB immediately.

S Figure 17: schematic Illustration – Emergency Notification Process
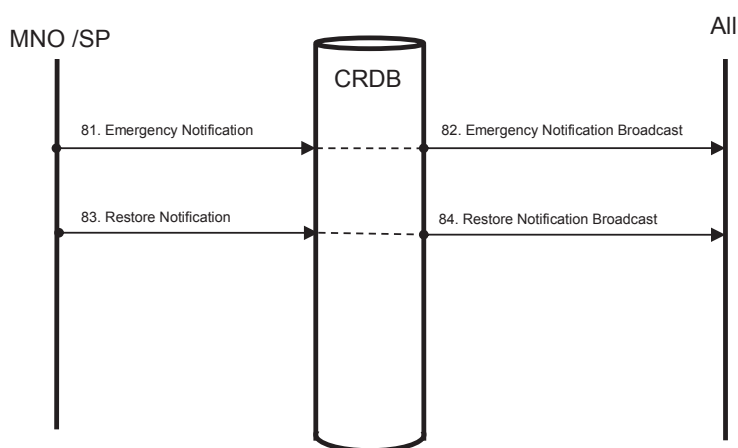
(20)   Emergency Notification Process Steps

Message 81 – Emergency Notification

(1) The MNO / SP shall send a Message to the CRDB advising of a technical problem or other emergencies which will result in the MNO / SP's inability to complete the Port Request and Activation or the Port Reversal Processes.

(2) The CRDB will suspend all Port Notification Time timers for the MNO / SP.

Message 82 – Emergency Notification Broadcast

(1)   The CRDB will broadcast this information to all the connected parties.

Message 83 – Restore Notification

(1) The MNO / SP shall send a Message to the CRDB advising that the technical problem or other emergencies which has been resolved and the MNO / SP is able to complete the Port Request and Activation or the Port Reversal Processes.

(2) The CRDB will continue with all Port Notification Time timers for the MNO / SP.

Message 84 – Restore Notification Broadcast

(1)   The CRDB will broadcast this information to all the connected parties.

(21) Validation Rules

(1)   The validation rules are contained in the matrix attached hereto as Annexure C.

(2)   The Messages, passed between the parties and the CRDB in each process, will be validated by the party receiving such Message (i.e. depending on the Message the receiving party may be the CRDB, the Donor, the Recipient, All Connected Parties, Block MNO and Other MNOs).

(3)   The Validation Rules are not intended to be a complete list of all checks and validations which will be performed each time a party receives a Message, but they are based on the relevant business rules applicable to the process or Message. Further, it is assumed that for this matrix the relevant validation is

only indicated as being made by the first party required to make such validation.

(22) CRDB Porting Statuses

These porting statuses are only pertaining to the CRDB. Each party can, for their internal processes, introduce additional statuses as required.

STATE	OCCURS
PREQ00	Initial state set when CRDB receives Message 1 - Port Request
PREQ01	CRDB has sent Message 2 - Port Request SPid to the DNO and is expecting Message 3 - Port Response SPid from DNO
PREQ02	CRDB has sent Message 4 - Port Request to the DSP and is expecting Message 5 - Port Response from DSP
PREQ03	CRDB has sent Message 6 - Port Response to the RSP and is expecting Message 7 - Port Notification from RSP
PREQ04	CRDB has sent Message 8 - Port Notification to the DSP and RNO and is expecting Message 9 - Port Activated from the RNO (but will accept Message 21 – Port Cancellation Request from RSP)
TRMN00	CRDB has terminated a port request because in either a Port Response, a Port Notification, or a Port Cancellation, all of the MSISDNs were removed from the list of MSISDNs to port
TRMN99	CRDB has terminated a port request because of an error condition
ACTV00	CRDB has sent Message 10 - Port Activated Broadcast to All and is expecting Message 11 - Port Deactivated from DNO and Message 13 - Port Routing Updated from other MNOs
ACTV01	CRDB has sent Message 12 - Port Deactivated to RSP and will only accept Message 13 - Port Routing Updated messages from other MNOs at this point
ACTV02	The timer for accepting Port Routing Updated messages has expired. No further messages will be accepted for the port
RVRS01	CRDB has sent Message 32 – Port Reversal Request to the DSP and is expecting Message 33 - Port Reversal Response from DSP
RVRS02	CRDB has sent the Message 34 - Port Reversal Response to the DNO and RSP and is expecting Message 35 - Port Reversal Activated from the DNO
RVRS03	CRDB has sent Message 36 - Port Reversal Activated Broadcast to ALL and is expecting Message 37 - Port Reversal Deactivated from RNO and Message 39 - Port Reversal Routing Updated from other MNO
RVRS04	CRDB has sent Message 38 - Port Reversal Deactivated to the DNO and will only accept 39 - Port Reversal Routing Updated from other MNOs
RTRN01	CRDB has sent Message 42 - Port Return Number Request to the Block Operator and is expecting Message 43 - Port Return Number Response from Block Operator.
RTRN02	CRDB has sent Message 44 - Port Return Number Broadcast to the All and is expecting Message 45 - Port Return Number Routing Updated from other MNO.

(23) Port Timers

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

NAME	VALUE	DESCRIPTION
Corporate Confirmation Time	16 hours	The maximum time the Donor may take to obtain confirmation that the porting is authorized, measured from the time of the Port Response.
Deferred Porting Time	31 calendar days	The maximum deferred porting time. Calculated from when the Recipient sends the Port Notification.
Deferred Termination Time	34 days (Deferred Porting Time + 3 days)	Three-day grace period before the CRDB will terminate a Port Request and Activation process if the Port Activated message did not arrive before the Deferred Porting Time
Network Synchronisation Time	4 hours	Means the hours of low network traffic (19h30 – 23h30 during all days excluding Public Holidays) when the MNOs will update their networks to activate and deactivate porting subscribers.
Port Authorisation Time	5 hours	The maximum time between the CRDB sending the Port Request to the Donor and the CRDB receiving the Port Response from the Donor.
Broadcast Time	1 minute	The maximum time between the CRDB receiving a Message and the CRDB sending a Broadcast Message to all MNOs 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 CRDB sends the Port Activated Broadcast Message 10 or the Port Reversal Activated Broadcast Message 36.
Port Notification Time	8 hours	The maximum time between the Recipient receiving the Port Response (Message 6) and the Recipient 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 Recipient receiving the Port Return Number Request (Message 42) and the Recipient 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 Recipient during Porting Hours but not more than 1 month after the Porting Time.
Port Reversal Time	15 minutes	The maximum time between the CRDB sending the Port Reversal Request to the Donor and the CRDB receiving the Port Reversal Response from the Donor.
Response Spid Time	5 minutes	The maximum time in which the Donor Operator responds with the Service Provider Identification to the CRDB
Routing Update Time	1 hour	The maximum time in which all Operators involved in Direct Routing must confirm to the CRDB that the new call routing has been effected. Measured from when the CRDB sends the Port Activated Broadcast Message 10, or the Port Reversal Activated Broadcast Message 36, or the Port Number Return Broadcast Message 44.

(24)   **Figure 18: Overview of the processes and Messages**
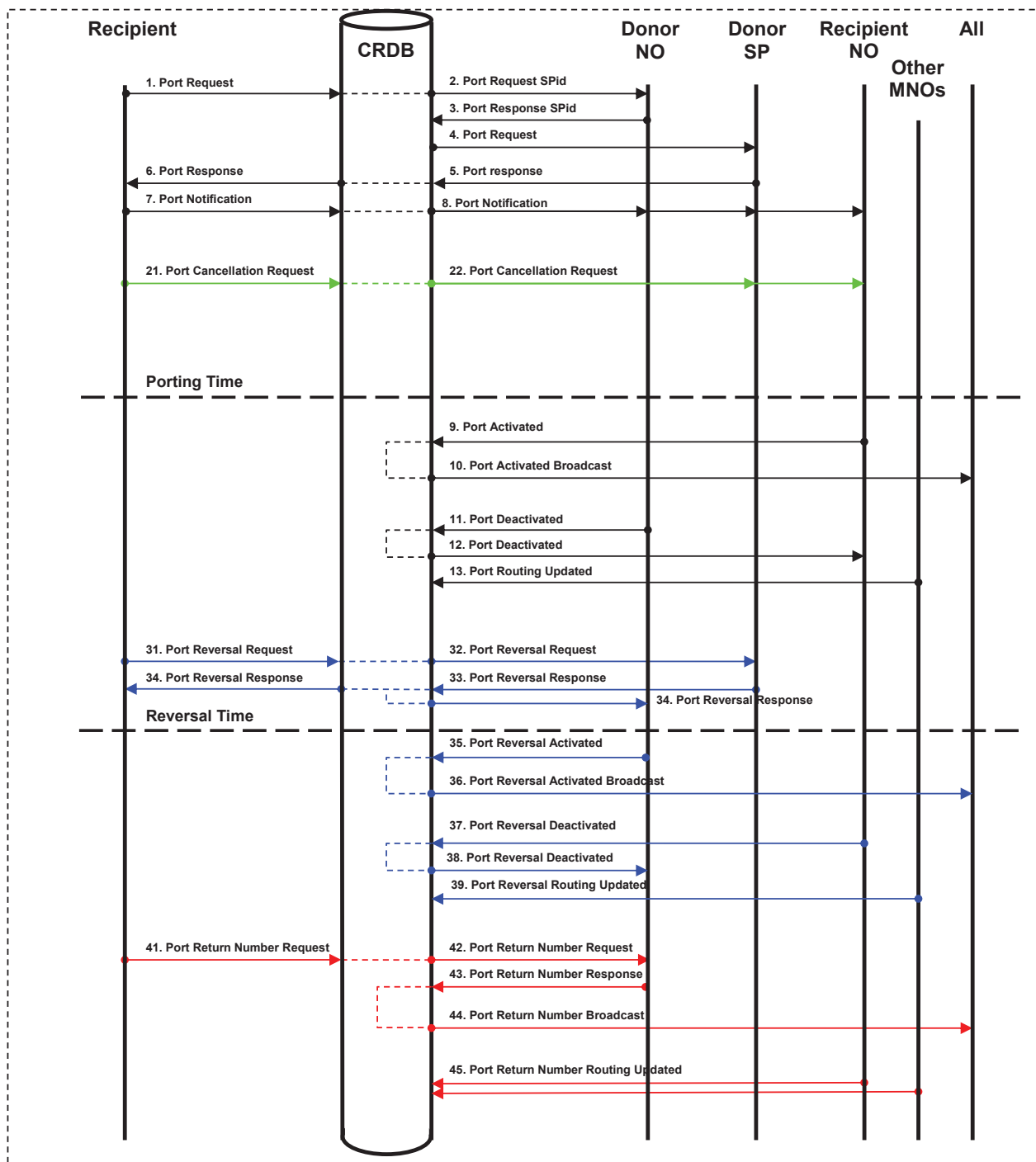
ANNEXURE XX: MESSAGE CONTENTS

Below each Message between the CRDB and the connected parties is outlined. Each Message will consist of two parts, one Message Header with mandatory fields which are common to all Messages, and one Message Body which is individual to each Message. The left column indicates the name of the Message and the fields in the Message, the middle column ('type') indicates the type of the Message (M = Mandatory field, O = Optional field, C = Conditional) and the third column is used for additional explanations and comments.

MSISDNs will be limited to a number of 1000 per request.

(22)   General Message Header

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

MESSAGE NAME / FIELD	TYPE	COMMENT
Reference / Porting ID	M	YYYYMMDD+hhmmss+Participant ID+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	Participant ID of the party sending the Message
Receiver of Message	M	Participant ID 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 Participant ID of the CRDB. The CRDB will replace the Receiver of Message field with the Participant ID of the destination of the message.

Note: The Header shall always be present for messages. For the CRDB 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
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 Donor 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
Participant ID	C	Id for the SP currently 'owning' the subscriber
Error Code	C	

4. PORT REQUEST	TYPE	COMMENT
Same as Message 1		

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
Same as Message 5		

7. PORT NOTIFICATION	*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 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
Same as Message 7		

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
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
Donor Network	M	Donor Network Operator Participant ID. Must be inserted by the CRDB
Recipient Network Routing Label	M	Routing Label (D82, D83, D84). Must be inserted by the CRDB.
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
Same as Message 11		

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

21. 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
Same as Message 21		

ADDITIONAL MESSAGES		
Messages 23 – 30 are not used but reserved for future use.		

(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. Malicious, Fraudulent, 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**
Same as Message 31		

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**
Same as Message 33		

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
Recipient Network Operator	M	Recipient Network Operator Participant ID. Must be inserted by the CRDB.
Donor Network Routing Label	M	Routing Label (D82, D83, D84). Must be inserted by the CRDB.
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
Same as Message 37		

39. PORT REVERSAL ROUTING UPDATED	TYPE	COMMENT
Number (r) of MSISDNs	M	

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

ADDITIONAL MESSAGES		
Message 40 are not used but reserved for future use.		

      (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
Same as Message 41		

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	

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

ADDITIONAL MESSAGES		
Messages 46 – 50 are not used but reserved for future use.		

(4) CRDB Download Process

51. CRDB 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. CRDB 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.		

(5) Emergency Notification Process

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

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

83. RESTORE NOTIFICATION	TYPE	COMMENT
Party restored	M	Participant ID

84. RESTORE NOTIFICATION BROADCAST	TYPE	COMMENT
Party restored	M	Participant ID

ADDITIONAL MESSAGES		
Messages 85 – 89 are not used but reserved for future use.		

(6) 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		
Messages 90 – 97 are not used but reserved for future use.		

ANNEXURE XX: VALIDATION RULES MATRIX

1 = Critical error, manual escalation and abort the process

2 = The process aborted and send error message back (automatic)

3 = Write to report log, process continues

Message Number	Message	Party	MSISDN not valid on Donor Network	MSISDN excluded from NP	MSISDN, Account Nr and Account Holder ID do not match	Classification of subscriber payment type does not match (Prepaid/Post-paid)	Subscriber already subject to disconnection	MSISDN, Account Nr and Corporate Reg Nr do	MSISDN already subject to porting	MSISDN already ported within last one month	Porting Time is NOT within Deferred Porting Time	Message NOT sent within relevant time	MSISDN not valid on SP	No agreement between Recipient & Donor	Number was not previously ported
	Port Request	CRDB							2	2					
		Recipient													
	Port Request SP ID	CRDB													
		Donor	2	2											
	Port Response SP ID	CRDB										3			
		Donor													
	Port Request	CRDB													
		Donor		2	2	2	2	2					2		
	Port Response	CRDB										3			
		Donor													
	Port Response	CRDB													
		Recipient													

Message Number	Message	Party	MSISDN not valid on Donor Network	MSISDN excluded from NP	MSISDN, Account Nr and Account Holder ID do not match	Classification of subscriber payment type does not match (Prepaid/Post-paid)	Subscriber already subject to disconnection	MSISDN, Account Nr and Corporate Reg Nr do	MSISDN already subject to porting	MSISDN already ported within last one month	Porting Time is NOT within Deferred Porting Time	Message NOT sent within relevant time	MSISDN not valid on SP	No agreement between Recipient & Donor	Number was not previously ported
7	Port Notification	CRDB									2	2			
		Recipient													
8	Port Notification	CRDB													
		Donor													
9	Port Activated	CRDB										2			
		Recipient													
10	Port Activated Broadcast	CRDB										3			
		All													
11	Port Deactivated	CRDB										3			
		Donor													
12	Port Deactivated	CRDB										3			
		Recipient													
13		CRDB										3			

Message Number	Message	Party	MSISDN not valid on Donor Network	MSISDN excluded from NP	MSISDN, Account Nr and Account Holder ID do not match	Classification of subscriber payment type does not match (Prepaid/Post-paid)	Subscriber already subject to disconnection	MSISDN, Account Nr and Corporate Reg Nr do	MSISDN already subject to porting	MSISDN already ported within last one month	Porting Time is NOT within Deferred Porting Time	Message NOT sent within relevant time	MSISDN not valid on SP	No agreement between Recipient & Donor	Number was not previously ported
	Port Routing Updated	Other MNOs													
21	Port Cancellation Request	CRDB										2			
21	Port Cancellation Request	Recipient													
22	Port Cancellation Request	CRDB													
22	Port Cancellation Request	Donor												2	
23	Port Cancellation Response	CRDB										3			
23	Port Cancellation Response	Donor													
24	Port Cancellation Response	CRDB													
24	Port Cancellation Response	Recipient													
31	Port Reversal Request	CRDB										2			
31	Port Reversal Request	Recipient													
32		CRDB													

Message Number	Message	Party	MSISDN not valid on Donor Network	MSISDN excluded from NP	MSISDN, Account Nr and Account Holder ID do not match	Classification of subscriber payment type does not match (Prepaid/Post-paid)	Subscriber already subject to disconnection	MSISDN, Account Nr and Corporate Reg Nr do...	MSISDN already subject to porting	MSISDN already ported within last one month	Porting Time is NOT within Deferred Porting Time	Message NOT sent within relevant time	MSISDN not valid on SP	No agreement between Recipient & Donor	Number was not previously ported
	Port Reversal Request	Donor												2	
33	Port Reversal Response	CRDB										3			
		Donor													
34	Port Reversal Response	CRDB													
		Recipient													
35	Port Reversal Activated	CRDB										2			
		Donor													
36	Port Reversal Activated Broadcast	CRDB													
		All													
37	Port Reversal Deactivated	CRDB										3			
		Recipient													
38		CRDB													

Message Number	Message	Party	MSISDN not valid on Donor Network	MSISDN excluded from NP	MSISDN, Account Nr and Account Holder ID do not match	Classification of subscriber payment type does not match (Prepaid/Post-paid)	Subscriber already subject to disconnection	MSISDN, Account Nr and Corporate Reg Nr do...	MSISDN already subject to porting	MSISDN already ported within last one month	Porting Time is NOT within Deferred Porting Time	Message NOT sent within relevant time	MSISDN not valid on SP	No agreement between Recipient & Donor	Number was not previously ported
	Port Reversal Deactivated	Donor													
39	Port Reversal Routing Updated	CRDB										3			
		Other MNOs													
41	Port Return Number Request	CRDB													2
		Recipient													
42	Port Return Number Request	CRDB													
		Block MNO	1												
43	Port Return Number Response	CRDB										3			
		Block MNO													
44	Port Return Number Broadcast	CRDB										3			
		All													
45		CRDB										3			

Message Number	Message	Party	MSISDN not valid on Donor Network	MSISDN excluded from NP	MSISDN, Account Nr and Account Holder ID do not match	Classification of subscriber payment type does not match (Prepaid/Post-paid)	Subscriber already subject to disconnection	MSISDN, Account Nr and Corporate Reg Nr do	MSISDN already subject to porting	MSISDN already ported within last one month	Porting Time is NOT within Deferred Porting Time	Message NOT sent within relevant time	MSISDN not valid on SP	No agreement between Recipient & Donor	Number was not previously ported
	Port Return Nr Routing Updated	All													
51	CRDB Download Request	CRDB													
		Connected Party													
52	CRDB Download Response	CRDB													
		Connected Party													
81	Emergency Notification	CRDB										2			
		MNO / SP													
82	Emergency Notification Broadcast	CRDB										3			
		All													
83	Restore Notification	CRDB										3			
		MNO / SP													

Message Number	Message	Party	MSISDN not valid on Donor Network	MSISDN excluded from NP	MSISDN, Account Nr and Account Holder ID do not match	Classification of subscriber payment type does not match (Prepaid/Post-paid)	Subscriber already subject to disconnection	MSISDN, Account Nr and Corporate Reg Nr do	MSISDN already subject to porting	MSISDN already ported within last one month	Porting Time is NOT within Deferred Porting Time	Message NOT sent within relevant time	MSISDN not valid on SP	No agreement between Recipient & Donor	Number was not previously ported
84	Restore Notification Broadcast	CRDB										3			
		All													