

ANNEX II

ADMINISTRATIVE PROCESSES

FOR

OPERATOR PORTABILITY

CONTENTS

| | | |
|----------|--|-----------|
| 1 | INTRODUCTION | 6 |
| 2 | SCOPE | 6 |
| 3 | MESSAGE FLOWS..... | 6 |
| 3.1 | INTRODUCTION | 6 |
| 3.1.1 | <i>Message flow</i> | 6 |
| 3.1.2 | <i>Process</i> | 7 |
| 3.1.3 | <i>Sequential Diagrams</i> | 7 |
| 3.2 | PORTING REQUEST (NP REQUEST) | 8 |
| 3.2.1 | <i>NP Normal Flow Simple Request</i> | 8 |
| 3.2.2 | <i>NP Rejected Simple Request</i> | 11 |
| 3.2.3 | <i>NP Normal Flow Coherent Request</i> | 12 |
| 3.2.4 | <i>NP Rejected Coherent Request</i> | 16 |
| 3.2.5 | <i>Updating events</i> | 17 |
| 3.3 | NUMBER RETURN (NP RETURN) | 18 |
| 3.3.1 | <i>NP Normal Return</i> | 18 |
| 3.3.2 | <i>NP Return followed by NP Request</i> | 19 |
| 3.3.3 | <i>Updating events</i> | 22 |
| 3.4 | NRN ALTERATION (NP NRN ALTERATION) | 22 |
| 3.4.1 | <i>Updating events</i> | 23 |
| 3.5 | NP CANCEL (CANCELLATIONS)..... | 23 |
| 3.5.1 | <i>NP Request Cancellation</i> | 24 |
| 3.5.2 | <i>NP Return Cancellation</i> | 26 |
| 3.5.3 | <i>NP NRN Alteration Cancellation</i> | 26 |
| 3.6 | PORTING REQUEST ALTERATION..... | 28 |
| 3.7 | NRN SYNCHRONISATION PROCESSES..... | 28 |
| 3.7.1 | <i>Daily information on Portability</i> | 29 |
| 3.7.2 | <i>Retrieval of information on NRN</i> | 29 |
| 3.8 | INFORMATION REQUEST PROCESS (NP INFORMATION REQUEST)..... | 29 |
| 3.9 | NP ERROR..... | 30 |
| 3.10 | ROLE OF RE IN THE CASE OF EXTINCTION OF SERVICE BY A PROVIDER..... | 30 |
| 3.10.1 | <i>Functions performed by the RE between the start of the extinction of service and the end of the quarantine period</i> | 30 |
| 3.10.2 | <i>Functions performed by the RE after the quarantine period</i> | 30 |
| 4 | TIMERS | 31 |
| 5 | MESSAGES | 33 |
| 5.1 | MESSAGE TYPES AND PARAMETERS | 33 |
| 5.1.1 | <i>NP Request</i> | 34 |
| 5.1.2 | <i>NP Return</i> | 35 |
| 5.1.3 | <i>NRN Alteration</i> | 35 |
| 5.1.4 | <i>NP ER Response</i> | 36 |
| 5.1.5 | <i>NP Request Confirmation</i> | 36 |
| 5.1.6 | <i>NP Return Confirmation</i> | 37 |
| 5.1.7 | <i>NP NRN Alteration Confirmation</i> | 38 |
| 5.1.8 | <i>NP Complete</i> | 39 |
| 5.1.9 | <i>NP NRN Alteration Complete</i> | 39 |
| 5.1.10 | <i>NP Update</i> | 39 |
| 5.1.11 | <i>NP Update Complete</i> | 40 |
| 5.1.12 | <i>NP Cancel</i> | 41 |
| 5.1.13 | <i>NP Cancel Confirmation</i> | 42 |
| 5.1.14 | <i>NP Information Request</i> | 42 |

| | | |
|----------|---|-----------|
| 5.1.15 | NP ER Information Response | 43 |
| 5.1.16 | NP Reject | 43 |
| 5.1.17 | NP Error..... | 44 |
| 5.2 | MAPPING BETWEEN PARAMETERS AND MESSAGES | 45 |
| 6 | MESSAGE PARAMETERS..... | 46 |
| 6.1 | MESSAGEID..... | 46 |
| 6.2 | ORIGINATINGMESSAGEID | 46 |
| 6.3 | MESSAGEDATEANDTIME | 47 |
| 6.4 | ERORDERNUMBER | 47 |
| 6.5 | PROCESSID | 47 |
| 6.6 | MESSAGEID..... | 47 |
| 6.7 | PARENTMESSAGEID | 48 |
| 6.8 | ORIGINATINGORDERNUMBER | 48 |
| 6.9 | TOTALNUMBEROFREQUESTS | 48 |
| 6.10 | SEQUENCENUMBER | 49 |
| 6.11 | DONORID..... | 49 |
| 6.12 | HOLDERID | 50 |
| 6.13 | RECIPIENTID | 51 |
| 6.14 | PROVIDERID | 51 |
| 6.15 | RECIPIENTCONTACTNAME..... | 51 |
| 6.16 | RECIPIENTCONTACTTELEPHONE..... | 51 |
| 6.17 | RECIPIENTCONTACTFAX..... | 52 |
| 6.18 | RECIPIENTCONTACTE-MAIL | 52 |
| 6.19 | HOLDERCONTACTNAME | 52 |
| 6.20 | HOLDERCONTACTTELEPHONE | 52 |
| 6.21 | HOLDERCONTACTFAX..... | 53 |
| 6.22 | HOLDERCONTACTE-MAIL..... | 53 |
| 6.23 | CUSTOMERNAME | 53 |
| 6.24 | CUSTOMERSIM | 53 |
| 6.25 | CUSTOMERSTREET | 53 |
| 6.26 | CUSTOMERLOCATION | 54 |
| 6.27 | CUSTOMERCODEANDLOCATION..... | 54 |
| 6.28 | CUSTOMERDOCUMENTIDTYPE..... | 54 |
| 6.29 | CUSTOMERDOCUMENTID | 54 |
| 6.30 | TYPEOFNUMBER..... | 55 |
| 6.31 | PABXMAINTELEPHONENUMBER..... | 55 |
| 6.32 | FIRSTTELEPHONENUMBER | 55 |
| 6.33 | LASTTELEPHONENUMBER | 55 |
| 6.34 | FACILITIES | 56 |
| 6.35 | PRESENTNRN..... | 56 |
| 6.36 | NEWNRN | 56 |
| 6.37 | CHARGINGINFO | 57 |
| 6.38 | 1STPORTINGTIME..... | 57 |
| 6.39 | 2NDPORTINGTIME | 57 |
| 6.40 | 3RDPORTINGTIME | 57 |
| 6.41 | AGREEDPORTINGTIME | 58 |
| 6.42 | NRNALTERATIONTIME..... | 58 |
| 6.43 | URGENTALTERATION | 58 |
| 6.44 | COORDINATEDACTION | 58 |
| 6.45 | TERMINATIONDATE..... | 59 |
| 6.46 | RETURNDATE | 59 |
| 6.47 | PROVIDERLIST..... | 59 |
| 6.48 | UPDATEACTION | 59 |
| 6.49 | ERRORCODE | 60 |
| 6.50 | ERRORTEXT | 60 |
| 6.51 | REMARKS..... | 60 |

| | | |
|-----------|--|------------|
| 6.52 | DATEFROM | 61 |
| 6.53 | DATETO | 61 |
| 6.54 | REPORTTYPE | 61 |
| 6.55 | HEADING | 61 |
| 6.56 | NUMBEROFROWS | 62 |
| 6.57 | ROW1...N | 62 |
| 6.58 | DATEFIELD | 62 |
| 6.59 | AUXILIARY1 (LOCAL LOOP NUMBER) | 62 |
| 6.60 | AUXILIARY2 (LOOP HDF BLOCK) | 63 |
| 6.61 | AUXILIARY3 (LOOP HDF TERMINATION) | 63 |
| 6.62 | AUXILIARY4 | 63 |
| 6.63 | AUXILIARY5 | 63 |
| 6.64 | AUXILIARY6 | 63 |
| 6.65 | SESSIONID | 64 |
| 6.66 | USERID | 64 |
| 6.67 | USERNAME | 64 |
| 6.68 | PASSWORD | 64 |
| 6.69 | USERDESCRIPTION | 65 |
| 6.70 | LASTSUCCESS | 65 |
| 6.71 | LASTFAILED | 65 |
| 6.72 | STATUS | 65 |
| 6.73 | ERMESSAGE | 66 |
| 6.74 | RETURNCODE | 66 |
| 6.75 | PORTATIONSTATUS | 66 |
| 6.76 | ERORDERNUMBERFROM | 66 |
| 6.77 | ERORDERNUMBERTO | 67 |
| 7 | ERROR HANDLING | 67 |
| 7.1 | ERROR CODES | 67 |
| 7.2 | ERROR VERIFICATION | 71 |
| 7.2.1 | <i>File format error</i> | 71 |
| 7.2.2 | <i>Syntax errors</i> | 71 |
| 7.2.3 | <i>Semantic errors</i> | 71 |
| 7.2.4 | <i>Errors found after database search</i> | 71 |
| 7.2.5 | <i>Handling of errors in the ER</i> | 71 |
| 7.2.6 | <i>Handling of errors in the Provider</i> | 72 |
| 7.2.7 | <i>Syntax verification</i> | 72 |
| 7.2.8 | <i>Semantic verification</i> | 72 |
| 8 | INTERFACE SPECIFICATION | 80 |
| 8.1 | INTRODUCTION | 80 |
| 8.2 | PHYSICAL INTERFACE WITH THE RE | 80 |
| 8.2.1 | <i>Providers / ICP-ANACOM – Data centre, main and secondary router</i> | 80 |
| 8.2.2 | <i>Link to Disaster Recovery Centre</i> | 80 |
| 8.2.3 | <i>Location of frame relay link</i> | 81 |
| 8.3 | LOGIC INTERFACE | 81 |
| 8.3.1 | <i>Stored procedure call Interface</i> | 82 |
| 8.3.2 | <i>Files interface</i> | 97 |
| 9 | WEB INTERFACE FOR RE | 102 |
| 9.1 | FUNCTIONALITY SUPPLIED | 102 |
| 9.1.1 | <i>Log-on</i> | 103 |
| 9.1.2 | <i>User management</i> | 103 |
| 9.1.3 | <i>Information request</i> | 103 |
| 10 | VALIDATION OF NUMBER BLOCKS AND INFORMATION ON NRNS | 103 |

| | | |
|-----------|---|------------|
| 11 | TRANSLATION TABLE FOR MESSAGES AND PARAMETERS..... | 103 |
| | APÊNDICE 1 - TRADUÇÃO DE NOMES DE MENSAGENS..... | 104 |
| | APÊNDICE 2 - TRADUÇÃO DE NOMES DE PARÂMETROS | 105 |
| | APÊNDICE 3 - TRADUÇÃO DE TEXTOS DE ERROS..... | 107 |

1 Introduction

This document defines the administrative procedures for operator portability in Portugal, including workflows, exchange of information, messages and message formats, and error handling.

This document specifically includes the following:

- Work procedures and message flows
- Timers
- Messages
- Message formats
- Message parameters
- Parameter formats
- Error conditions
- Error handling
- Error and message codes

2 Scope

All public telecommunications service providers with portability obligations must comply with the administrative procedures for number portability described in this document.

The technical aspects of number portability in Portugal are specified in the document “Annex 1 – Technical Interface between Networks”.

This document does not specify the interface with the providers’ customers.

3 Message flows

3.1 Introduction

3.1.1 Message flow

A message flow begins when a provider starts a new porting order (NP Request, NP Return or NP NRN Alteration). The flow ends when the order is complete, that is, when the message NP Update Complete/NP Reject/NP Cancel Confirmation is received, or, in the case of the NP Return process (see section 3.3.2) if an NP Request is issued for a number or group or range of numbers during the quarantine period. There is a one-to-one relationship between the flow and the EROrderNumber.

Message flows are described for the following processes:

- 1 NP Request (Porting Request between Providers)
- 2 NP Return (Number Return – End of Porting Cycle)
- 3 NRN Alteration
- 4 NP Cancellation
- 5 NRN Synchronisation
- 6 NP Information Request

3.1.2 Process

A process presents an interaction between the sender and the recipient (in the case of NP Request: Recipient Provider and Donor/Holder/All Providers). Therefore, each request or notification starts a new process. In this way there is a one-to-one relationship between the process and the ProcessID. A flow may be composed of various processes.

3.1.3 Sequential Diagrams

The sequential diagrams for the administrative procedures for number portability are written in UML (*Unified Modeling Language*) notation.

Objects in the sequential diagrams:

| | |
|------------|--|
| Recipient: | The provider that requests the ported number |
| Holding: | The provider that currently holds the number or number range, from which the ported number(s) is requested |
| Donor: | The provider to whom the number or number range was originally assigned by the ICP-ANACOM, and from which the number is ported for the first time. |
| RE: | Represents the Reference Entity of Number Portability. |
| All: | Represents all other providers (messages are sent to all other providers at the same time) |

Three compulsory parameters are presented in the messages:

| | |
|---------------------------|---------------------------------------|
| msgID (MessageID): | Unique global ID generated by the RE. |
| PmsgID (ParentMessageID): | Former Message ID in the process. |
| PID (ProcessID): | Message ID which starts the process. |

The timers (Tx) and conditions in accordance with section 4 are presented on the left-hand side of the diagrams, as well as the porting time (P), the return date (R) and the alteration date (A). The updating events (Ux) are presented on the right-hand side.

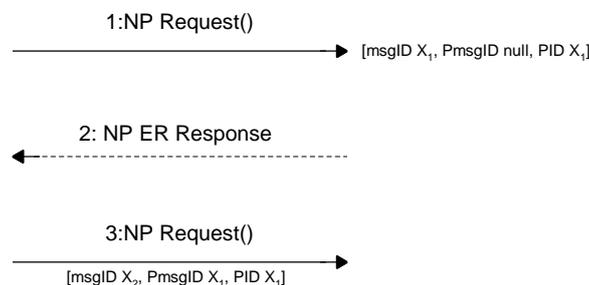


Figure 1 – Definition of messages

Figure 1 shows different messages used in the sequential diagrams. Each service provider has a one-to-one link with the RE. The providers send messages to the RE, which copies the messages to one or more addressees. Each individual message has a unique identification, MessageID. For a message sent from a provider (1), the RE attributes a MessageID (as well as a ProcessID and an EROrderNumber) when it receives the message. In such cases, the identification is shown at the start of the message (arrow). The assigned values are returned to

the sender via an NP ER Response (2). NP ER Response is not a typical message, but rather a response message (of a result), which is not assigned a MessageID. When a message is sent by the RE, the identification is presented below the arrow (3).

3.2 Porting Request (NP Request)

This procedure is used by the number portability process, including the first porting, subsequent porting and porting to the Donor Provider. There is a procedure for simple requests and another for coherent requests. A coherent request is sent when, for a single customer, it is necessary to port several numbers or number ranges within the same porting window. The rejection of one request in a coherent request implies complete rejection of the coherent request.

Each NP Request message received by the Holding Provider has to be responded to in T3, either with an NP Request Confirmation or, if applicable, an NP Reject message.

3.2.1 NP Normal Flow Simple Request

| Msg | Description of Action |
|-----------|--|
| 1. | The Recipient Provider sends a porting request. The T0 timer defines the start of the message flow. The RE generates the MessageID and the ProcessID. For the initial message, ProcessID is the same as MessageID. |
| 2. | The RE notifies the Recipient Provider that the message was received and that it will be re-routed, and returns the message and process IDs. |
| 3. | The RE re-routes the message to the Holding Provider. |
| 4. | The Holding Provider validates and accepts the porting request, and agrees to one of the porting windows suggested by the Recipient Provider by sending an NP Request Confirmation to the RE. The time limit for sending this message is T3 counting from T0. If the NP Request Confirmation message is not sent by the Holding Provider in T3, an NP Error message with cause 234 is sent by the RE to the Holding Provider. The Recipient Provider is notified of the failure to respond, using the error cause 252, and the flow is closed. A new NP Request must be sent to restart the porting request. |
| 5. | The RE notifies the Holding Provider that the message was received and that it will be re-routed, and returns the message IDs. |
| 6. and 7. | The RE sends the response to the Recipient Provider and distributes the same response to all the other Providers. The Providers which use offline supply systems now have the necessary information to update their routing databases. Providers which use the NP Request Confirmation message to update their systems may send the NP Update Complete message using the MessageID of the NP Request Confirmation message as ParentMessageID. In this case the Holding Provider uses the MessageID of its own NP Request Confirmation as ParentMessageID in the NP Update Complete message. |
| 8. | The Recipient Provider internally establishes the access lines. The conclusion of the porting process and the updating of the routing database are confirmed by sending an NP Complete message to the RE within the agreed porting window. |
| 9. | The RE notifies the Recipient Provider that the message was received, and returns the assigned message and process IDs. |

| Msg | Description of Action |
|----------------|--|
| 10. and 11. | When the RE receives the NP Complete message from the Recipient Provider, or by T14 at the latest before the end of the porting window, an NP Update is distributed to all the Providers by the RE. Providers with online supply systems use this message to update their routing databases. Providers with offline supply systems which use the NP Request Confirmation message to update their routing databases may ignore the NP Update message. |
| 12. | The Holding Provider confirms that its routing database was updated by sending the NP Update Complete within the agreed porting window, if it uses an offline supply system, or by responding to the NP Update message in T15 from the sending of the NP Update message if it uses an online supply system. |
| 13. | The RE notifies the Holding Provider that the message will be re-routed, and returns the assigned IDs. |
| 14. | All the other Providers confirm that their routing databases were updated by sending the NP Update Complete within the agreed porting window, if they use offline supply systems, or by responding to the NP Update message in T15 from the sending of the NP Update message if they use online supply systems. |
| 15. | The RE notifies the Providers that the message was received and that it will be re-routed, and returns the assigned IDs. |
| 16. | At the end of the porting window, T8, the RE sends an NP Update Complete message to the Recipient Provider with the list of Providers that have sent NP Update Complete messages by that date. NP Update Complete messages which are received after the end of the porting window will be accepted by the RE, but will not be re-routed. NP Update Complete messages sent after the end of the porting window will update the Portings Status Table available to all the Providers via the NP Information Request procedure. |

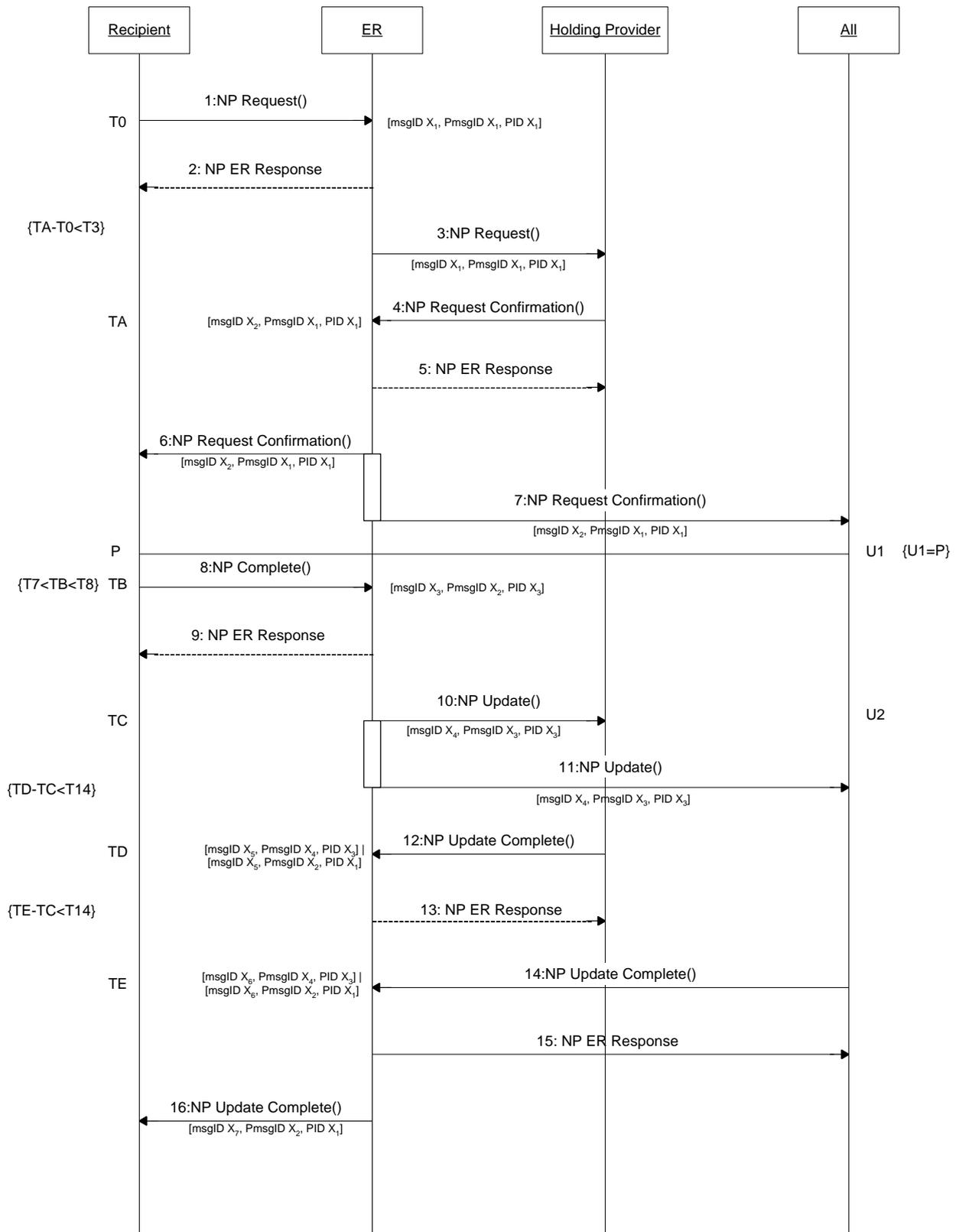


Figure 2 – NP Request, successful simple request

3.2.2 NP Rejected Simple Request

If the Holding Provider finds an error in the NP Request message, or if there are other grounds to reject the request, the request is rejected with notification of these grounds, and the Recipient Provider must send a new corrected request in order for the porting to occur.

| Msg | Description of the action |
|-----|---|
| 1. | The Recipient Provider sends a porting request. The T0 timer defines the start of the message flow. The RE generates the MessageID and the ProcessID. For the initial message, ProcessID is the same as MessageID. |
| 2. | The RE notifies the Recipient Provider that the message was received and that it will be re-routed, and returns the assigned IDs. |
| 3. | The RE re-routes the message to the Holding Provider. |
| 4. | The Holding Provider validates the request, and verifies that the request does not satisfy the requirements of a valid request. The porting request is therefore rejected using an NP Reject message indicating the grounds for the rejection. The time limit for sending this message is T3, counting from T0. If the NP Reject message is not sent by the Holding Provider in T3, then an NP Error message with cause 234 is sent by the RE to the Holding Provider, the Recipient Provider is notified of the failure to respond, by means of the error cause 252, and the flow is closed. A new NP Request must be sent to restart the porting request. |
| 5. | The RE notifies the Holding Provider that the rejection message was received and will be re-routed, and returns the assigned IDs. |
| 6. | The RE re-routes the NP Reject message to the Recipient Provider, and the process is closed. A new NP Request message with corrected information will start a new process in accordance with section 3.2.1. |

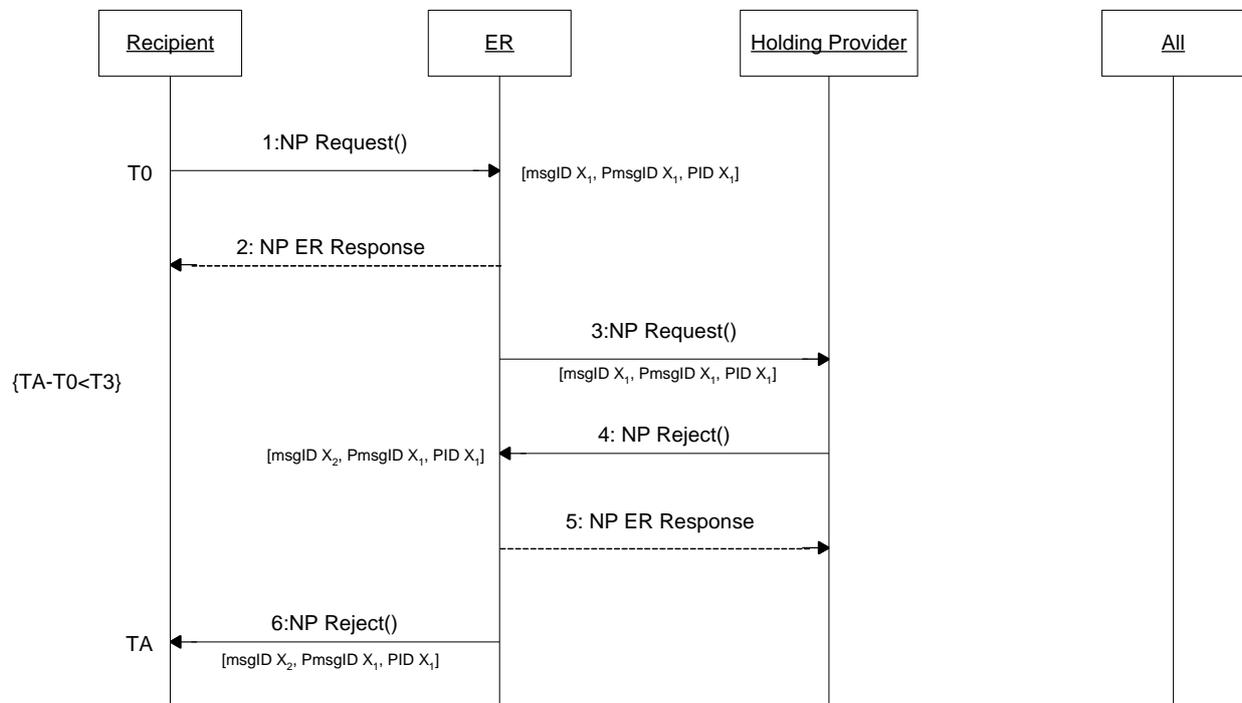


Figure 3 – NP Request, rejected simple request

3.2.3 NP Normal Flow Coherent Request

The sequential diagram illustrates a coherent request with two individual requests. The scenario can easily be extended to describe a coherent request with more than two individual requests.

The RE awaits the messages in sequence, that is, first the message with SequenceNumber = 1, and second the message with SequenceNumber = 2, and so on. The RE always awaits the message following the last one it accepted, and only that one. If the flow is closed due to the T2 having expired, then the whole sequence must be sent again.

Cancellation of a coherent request is made by cancelling each of the individual requests which form the coherent request. See section 3.5.1.

| Msg | Description of the action |
|-------------|--|
| 1. | The Recipient Provider sends the first message of the coherent porting request. The T0 timer defines the start of the message flow. The RE generates the MessageID and the ProcessID. For the initial message, ProcessID is the same as MessageID. |
| 2. | The RE notifies the Recipient Provider that the message was received and that it will be re-routed, and returns the message and process IDs. ¹ |
| 3. | The Recipient Provider sends the next (and in this case, the last) message in the coherent request, ensuring that the messages related to the coherent request were sent before timer T2 expires. The RE generates the MessageID and the ProcessID. |
| 4. | The RE notifies the Recipient Provider that the message was received and that it will be re-routed, and returns the message and process IDs. If all the messages related to the coherent request were not received in T2, an NP Error message with cause 238 is sent to the Recipient Provider, and the process is closed. |
| 5. and 6. | The RE collects the messages related to the coherent request and re-routes them to the Holding Provider. |
| 7. and 9. | The Holding Provider validates and accepts each of the porting requests, and agrees to one of the porting windows suggested by the Recipient Provider by sending an NP Request Confirmation for each of the requests in the coherent request to the RE. The time limit for sending the NP Request Confirmation messages is T3 counting from T0. If the NP Request Confirmation messages related to the coherent request are not received in T3, an NP Error message with cause 234 is sent to the Holding Provider. The Recipient Provider is notified of the failure to respond by means of a 252 error code, and the flow is closed. A new NP Request must be sent to restart the porting request. |
| 8. and 10. | The RE notifies the Holding Provider that the messages were received and will be re-routed, and returns the assigned IDs. |
| 11. and 12. | The RE re-routes the response to the first request to the Recipient Provider and distributes the same response to all the other Providers. The Providers which use offline supply systems now have the necessary information to update their routing databases. Providers which use the NP Request Confirmation message to update their systems may send the NP Update Complete message using the MessageID of the NP Request Confirmation message as ParentMessageID. In this case the Holding Provider uses the MessageID of its own NP Request Confirmation as ParentMessageID in the NP Update Complete message. |

¹ Using the FTP interface, the individual requests of a coherent request are sent consecutively, without the need to wait for the ERResponse message between each request. When the Stored Procedure Call interface is used, the response is immediate.

| Msg | Description of the action |
|-----------------------|---|
| 13. and 14. | The RE re-routes the response to the second request to the Recipient Provider and distributes the same response to all the other Providers. The Providers which use offline supply systems now have the necessary information to update their routing databases. |
| 15. and 23. | The Recipient Provider internally establishes the access lines. The conclusion of the porting process and the updating of the routing database are confirmed by sending an NP Complete message to the RE for each of the individual requests related to the coherent request within the agreed porting window. |
| 16. and 24. | The RE notifies the Recipient Provider of each of the NP Complete messages it has received, and returns the message and process IDs. |
| 17., 18., 25. and 26. | When the RE has received the NP Complete message from the Recipient Provider, or by T14 before the end of the porting window, the NP Update message is distributed to all the other Providers from the RE. Providers with online supply systems use this message to update their routing databases. |
| 19. and 27. | The Holding Provider confirms that its routing databases were updated by sending the NP Update Complete within the agreed porting window, if it uses an offline supply system, or by responding to the NP Update message in T15 from the sending of the NP Update message if it uses an online supply system. |
| 20. and 28. | The RE notifies the Holding Provider that the message will be re-routed, and returns the assigned IDs. |
| 21. and 29. | All the other Providers confirm that their routing databases were updated by sending the NP Update Complete message within the agreed porting window, if they use offline supply systems, or by responding to the NP Update message in T15 from the sending of the NP Update message if they use online supply systems. |
| 22. and 30. | The RE notifies the Providers that the message was received and that it will be re-routed, and returns the assigned IDs. |
| 31. and 32. | At the end of the porting window, T8, the RE sends an NP Update Complete message for each individual NP Update of the coherent request to the Recipient Provider, with the list of Providers that have sent NP Update Complete messages by that date. NP Update Complete messages sent after the end of the porting window will update the Portings Status Table available to all the Providers via the NP Information Request procedure. |

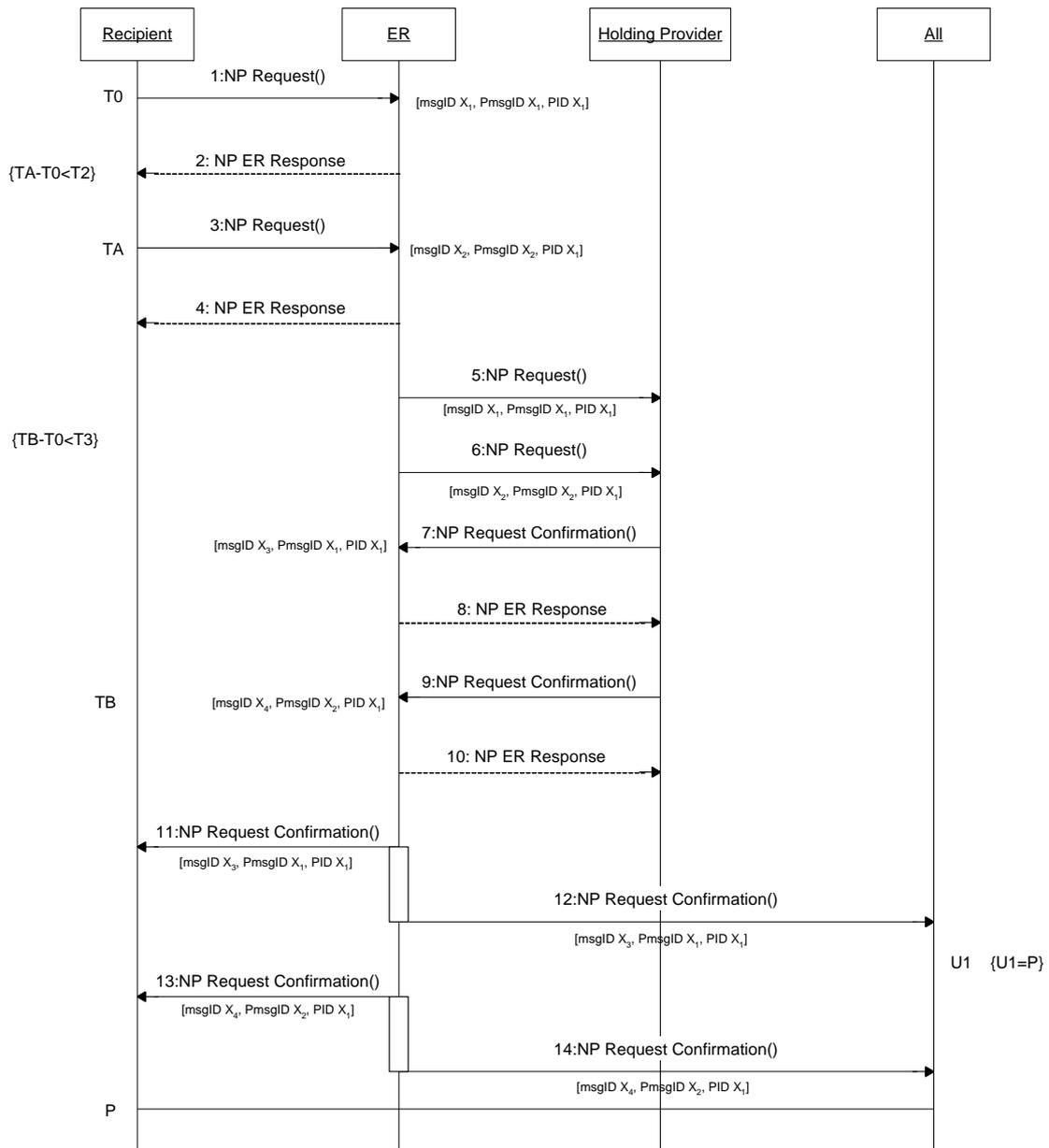


Figure 4 – NP Request, successful coherent request, part 1

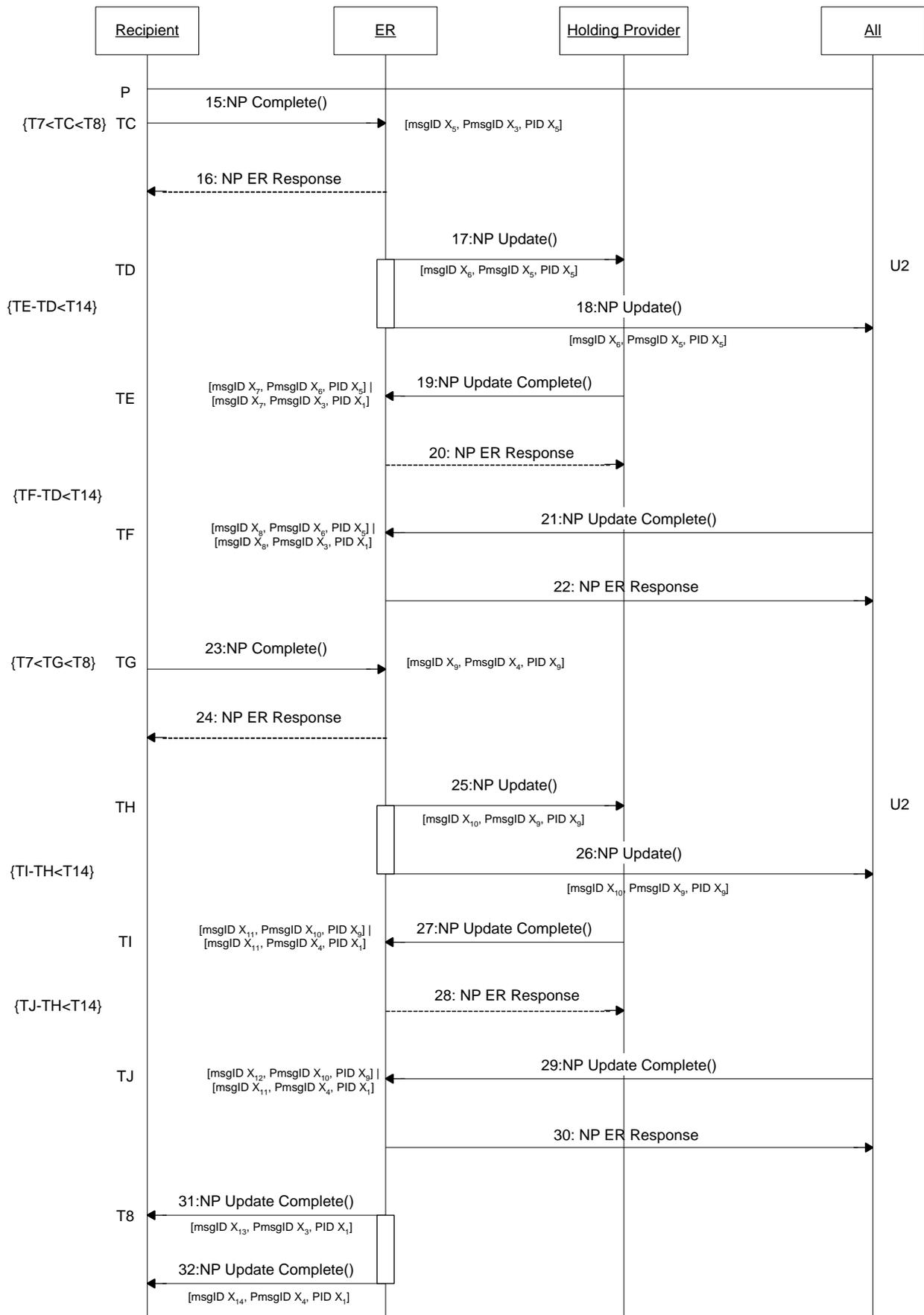


Figure 5 – NP Request, successful coherent request, part 2

3.2.4 NP Rejected Coherent Request

The sequential diagram illustrates a coherent request with two individual requests. The scenario can easily be extended to describe a coherent request with more than two individual requests.

| Msg | Description of the action |
|-------------|---|
| 1. | The Recipient Provider sends the first message of the coherent porting request. The T0 timer defines the start of the message flow. The RE generates the MessageID and the ProcessID. For the initial message, ProcessID is the same as MessageID. |
| 2. | The RE notifies the Recipient Provider that the message was received and that it will be re-routed, and returns the assigned message and process IDs. |
| 3. | The Recipient Provider sends the following message, and ensures that these messages related to the coherent request are sent before T2 expires. The RE generates the MessageID and the ProcessID. |
| 4. | The RE notifies the Recipient Provider that the message was received and that it will be re-routed, and returns the assigned message and process IDs. If the messages related to the coherent request are not received in T2, an NP Error message with cause 238 is sent to the Recipient Provider, and the process is closed. |
| 5. and 6. | The RE collects the messages related to the coherent request and re-routes them to the Holding Provider. |
| 7. and 9. | The Holding Provider validates each of the porting requests. Although it is verified that one or more of these requests does not satisfy the requirements of a valid request, an NP Request Confirmation is returned for each of the requests accepted and an NP Reject message is returned for each message in the coherent request which is incorrect, indicating the grounds for the rejection. The time limit for sending all the NP Request Confirmation messages or NP Reject messages related to the coherent request is T3 counting from T0. If all the NP Request Confirmation messages or NP Reject messages related to a coherent request are not received in T3, an NP Error message with cause 234 is sent to the Holding Provider. The Recipient Provider is notified of the failure to respond by means of a 252 error code, and the flow is closed. A new NP Request must be sent to restart the porting request. |
| 8. and 10. | The RE notifies the Holding Provider that the messages were received and will be re-routed, and returns the assigned IDs. |
| 11. and 12. | The RE re-routes the NP Request Confirmation and NP Reject messages to the Recipient Provider when all the response messages related to the coherent request have been received from the Holding Provider. The process will be closed due to the NP Reject. A new coherent NP Request with the corrected information will start a new process in accordance with section 3.2.3. |

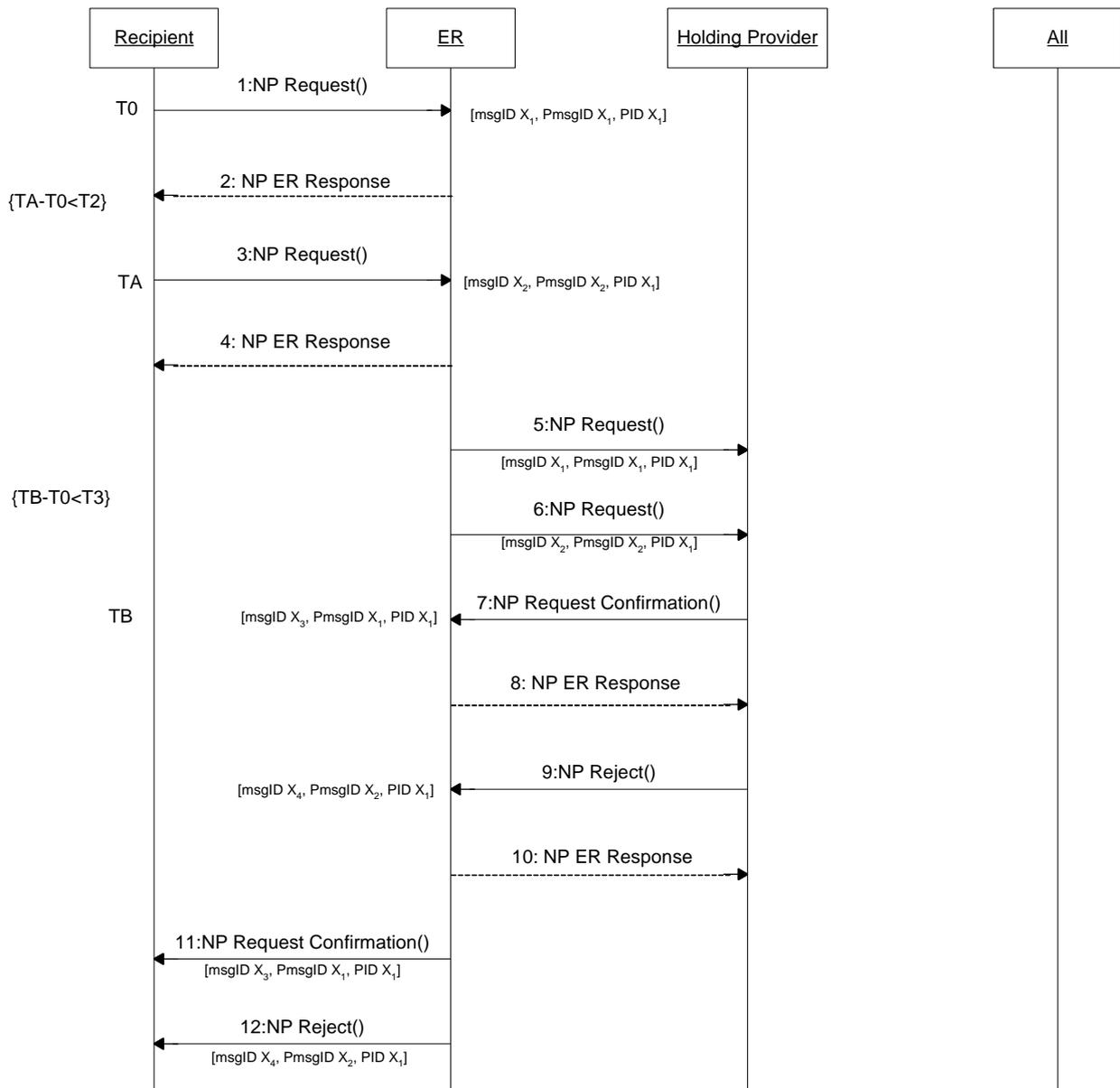


Figure 6 – NP Request, rejected coherent request

3.2.5 Updating events

Two updating events take place:

- Updating of the numbers or number range in the Reference Database (in the ER);
- Updating of the numbers or number range in the routing tables (all Providers).

The established solution suggests two possible updating scenarios for Providers:

- U1: Offline updating – updating in accordance with the agreed porting date;
- U2: Online updating – immediate updating on receipt of the NP Update message.

When the porting time is used to update the routing databases, the Providers update their routing databases independently. In the sequential diagram this is illustrated by the updating event U1.

When online updating is used, the Recipient Provider starts the updating by sending the NP Complete message to the RE (after updating its own routing database), and the RE

immediately distributes the NP Update message to all the Providers. All the online databases are immediately updated when the Providers receive the NP Update message. In the sequential diagrams, this is illustrated by the updating event, U2.

The reference database at the RE is updated when an NP Update message is sent to all the Providers, immediately after the RE has received an NP Complete message from the Recipient Provider or T14 before the end of the porting window if the NP Complete message has not yet been sent.

3.3 Number Return (NP Return)

The end of the subscription of a ported number results in that number entering a storage period of T19 or T20, depending on whether the number is mobile, roaming or fixed, or belongs to a non-geographic service. The first part of the storage period, T18, is the quarantine period, during which time the subscriber who ended the subscription may take out a new subscription with the same number. During the quarantine period, the number is regarded as being ported to the last Holding Provider. After the quarantine period (and if no new porting is requested), the number is returned to the Number Range Owner.

The NP Return procedure is applicable both to numbers and to number ranges.

In the sequential diagram, the timer R (return time) illustrates the end of the quarantine period.

3.3.1 NP Normal Return

| Msg | Description of the action |
|--|--|
| 1. | The Holding Provider has received a termination request from the subscriber, and notifies the RE in T16 that the number (number range) will be returned. From then on, the RE is responsible for the return process. |
| 2. | The RE notifies the Provider that the message was received, and returns the assigned IDs. |
| The RE starts the quarantine period associated with the number(s). Timer R (return time) in the sequential diagram (second dotted line) illustrates the end of the quarantine period. In this scenario, there is no NP Request for the number(s) before timer T18 expires. Timer T18 is counted from the TerminationDate indicated in the NP Return message. | |
| 3. and 4. | The RE distributes the NP Return Confirmation message to all the Providers T5 after the timer T18 expires (the Subscriber did not maintain the subscription and the number will be returned to the Number Range Owner). The Providers now have sufficient information to update their routing databases offline. |
| 5. and 6. | When T5 has passed after the quarantine period, T18, the RE confirms that the Reference Database is updated, and that all the online databases must be updated in conformity. NP Update is distributed to all the Providers (including the Number Range Owner). NP Update is used to update the routing databases online. |
| 7. and 9. | All the Providers confirm that their databases are updated by sending an NP Update Complete message in response to the NP Update. Those Providers that update their routing databases on the basis of the NP Return Confirmation message must also send the NP Update Complete message. The time limit for sending this message is T15, counting from TB (in this case, TB is associated with the sending of the NP Update message). |
| 8. and 10. | The RE notifies the Providers that the message was received, and returns the assigned IDs. |

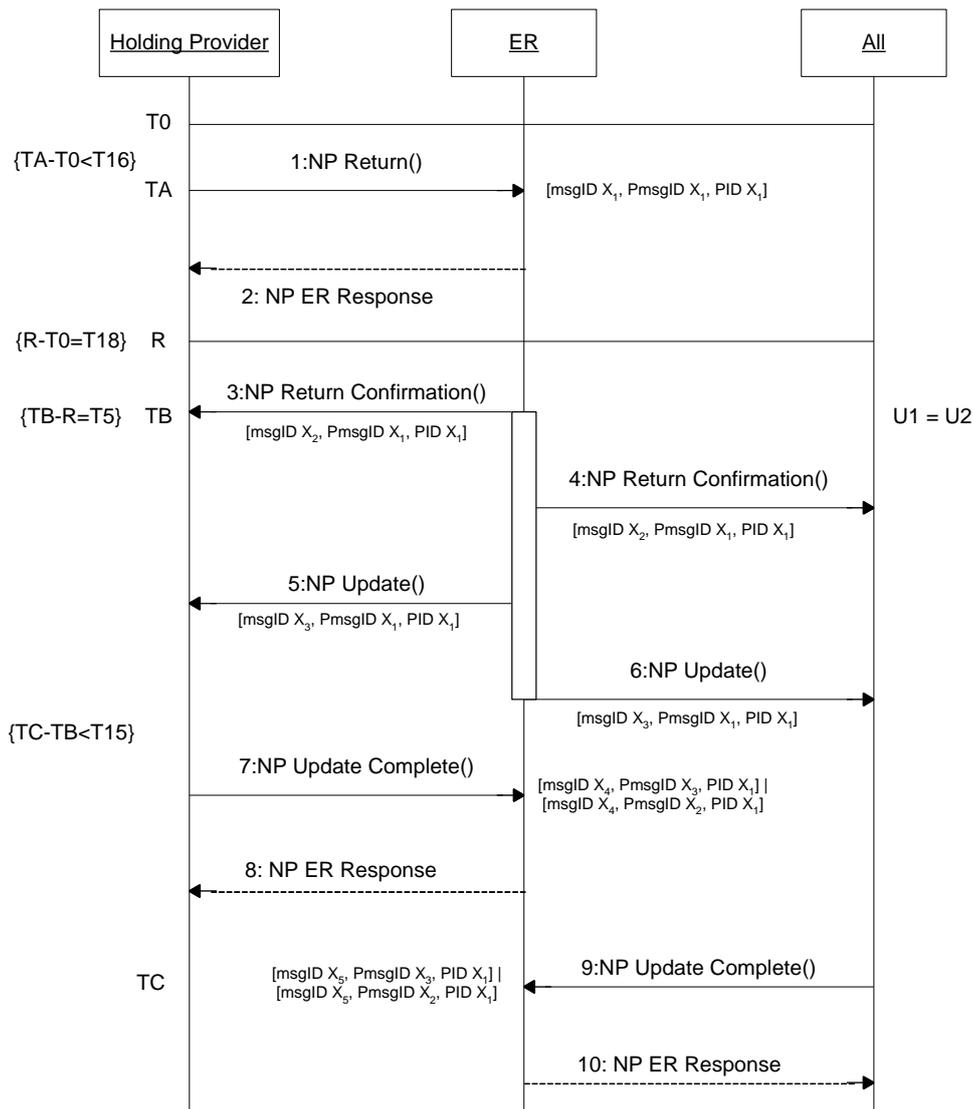


Figure 7 – NP Return– normal return

3.3.2 NP Return followed by NP Request

During the quarantine period, the Subscriber may restart the subscription with the last Holding Provider or another Provider (if the Subscriber wishes to restart the subscription with the same Provider, an NP Return Cancellation message is sent – see section 3.5.2). In this scenario, which is used when the Subscriber wishes to use another Provider, the quarantine period stops and the return flow is closed, and normal request procedure is applied.

| Msg | Description of the action |
|-----|---|
| 1. | The Holding Provider has received a termination request from the subscriber, and notifies the RE that the number (or number range) will be returned. The RE starts the quarantine period associated with the number(s). Timer R (return time) in the sequential diagram (dotted line) illustrates the end of the quarantine period. |
| 2. | The RE notifies the Holding Provider that the message will be re-routed, and returns the assigned IDs. |
| 3. | Before timer T18 expires, the Recipient Provider sends an NP Request for the number in quarantine. |
| 4. | The RE notifies the Recipient Provider that the message will be re-routed, and returns the assigned IDs. |

| Msg | Description of the action |
|-----|---|
| 5. | The RE re-routes the message to the Holding Provider. |
| 6. | The Holding Provider accepts the request and sends the NP Request Confirmation message to the RE, which stops the quarantine period. (Meanwhile, if an NP Request Cancel is received later, the quarantine period is resumed). From then on, the flow message is the same as section 3.2.1 : NP Simple Request. |

An NP Request received during T5 after T18 has expired will be rejected with Error 309 (Number in the Storage Period).

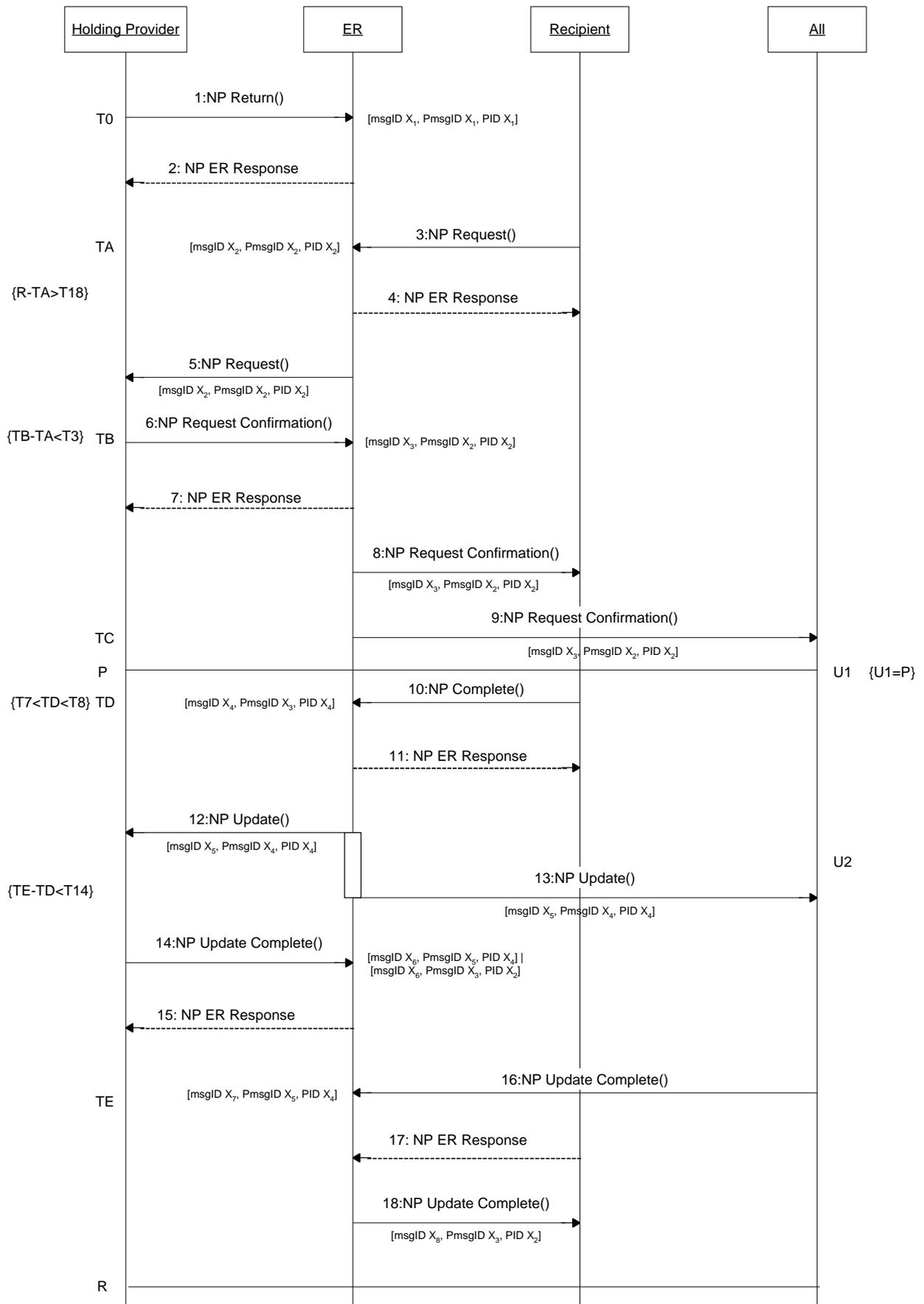


Figure 8 – NP Return followed by NP Request

3.3.3 Updating events

The updating events U1 and U2 are the same as those described in 3.2.5.

3.4 NRN Alteration (NP NRN Alteration)

The NP NRN Alteration procedure should be used when the Holding Provider needs to alter the NRN associated with a number or range of ported numbers, or if there is an error in the RDB. The procedure alters the entry in the RDB and subsequently the entries in the routing databases of all the Providers.

There are two types of NRN Alteration procedure – the normal procedure and the urgent procedure, indicated by the UrgentAlteration parameter. The urgent procedure is only used when there are errors in the RDB.

For the normal procedure, NRN Alteration may be requested between T12 and T11 in advance of the actual NRNAlterationTime (content of NRNAlterationTime parameter).

When using the urgent procedure, the NRNAlterationTime parameter is ignored – the alteration occurs immediately.

| Msg | Description of the action |
|--------------|---|
| 1. | The Holding Provider starts NRN alteration for the number(s). |
| 2. | The RE notifies the Holding Provider that the message was received and that it will be re-routed, and returns the assigned IDs. |
| 3. and 4. | The RE distributes the NP NRN Alteration Confirmation message to all the Providers. All the Providers with an offline supply system now have sufficient information to update their routing databases (U1). |
| 5. | For the normal NRN Alteration procedure, when the Holding Provider updates the routing database on the date announced for the alteration, an NP NRN Alteration Complete message is sent to the RE. |
| 6. | The RE notifies the Holding Provider that the message was received and that it will be re-routed, and returns the assigned IDs. |
| 7. | On receipt of the NP NRN Alteration Complete message, or at the latest T14 before the end of the alteration window, the RE distributes the NP Update to all the Providers. They may now update their routing databases online. For the urgent NRN Alteration the NP Update is sent to all the Providers immediately after the NP NRN Alteration Confirmation message is sent. |
| 8. | All the other Providers confirm that their databases are updated by sending the NP Update Complete message in response to the NP Update message or at the time announced for the alteration. The time limit for sending the message is T15, counting from TB. |
| 9. | The RE notifies the Providers that the message was received and that it will be re-routed. |
| 10. | At the end of the NRN Alteration Window, or T8 after the NP Update for the urgent NRN Alteration is sent, the RE re-routes an NP Update Complete message to the Holding Provider with a list of the Providers that have responded with the NP Update Complete message by that date. NP Update Complete messages sent after the end of the porting window will update the Portings Status Table available to all the Providers via the NP Information Request procedure. |

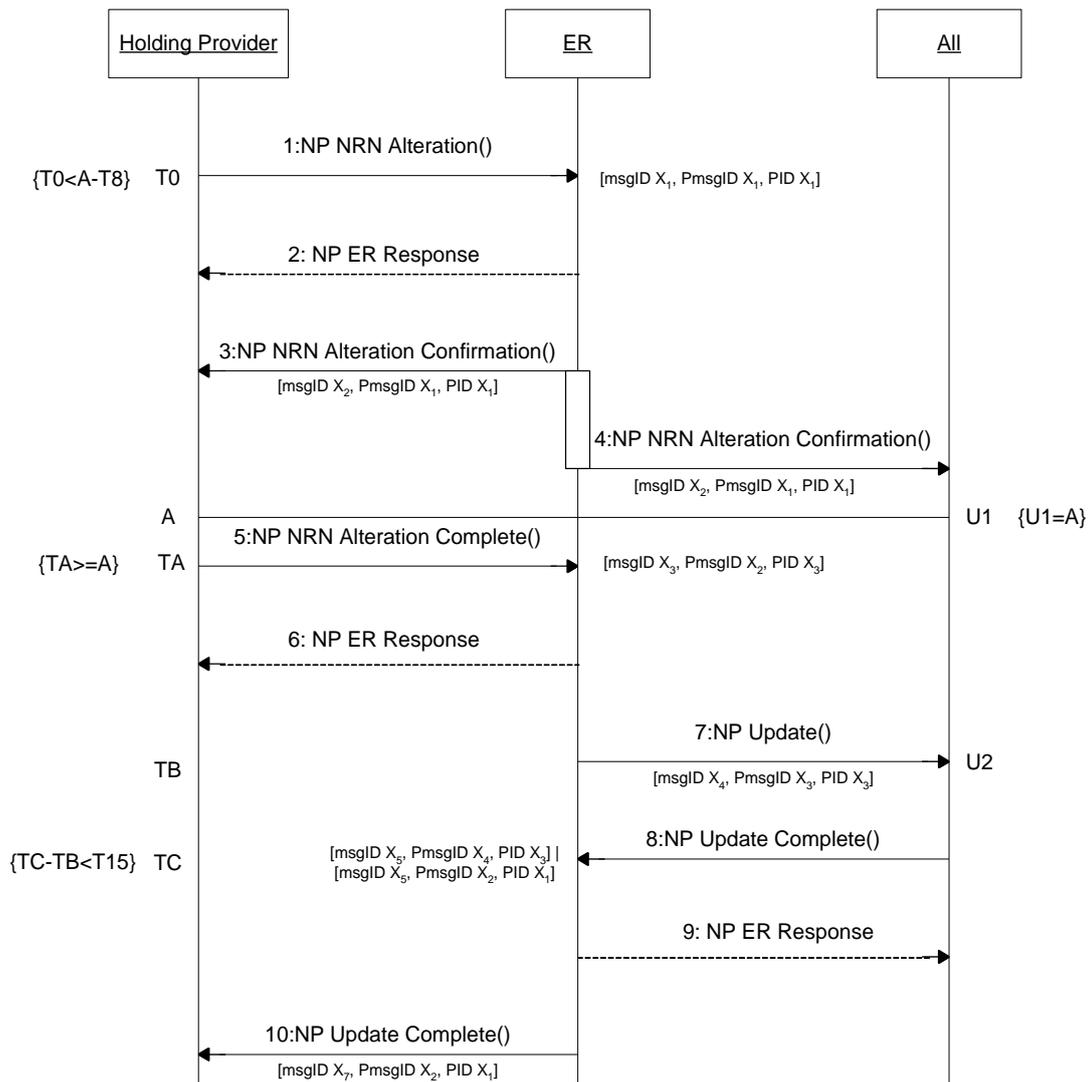


Figure 9 – NP NRN Alteration

3.4.1 Updating events

The updating events U1 and U2 are the same as those described in 3.2.5.

3.5 NP Cancel (Cancellations)

This procedure is used to cancel an NP Request, NP Return or NP NRN Alteration. The cancellation procedure requires a process to be in progress. (If not, the RE returns an NP Error. See section 3.9). The EROrderNumber parameter serves to identify the process to be cancelled.

The message flow depends on the type of process, which is either an NP Request, NP Return or NP NRN Alteration to be cancelled. However, one and the same NP Cancel message is used for all the processes.

Individual requests in a coherent request are cancelled one by one.

3.5.1 NP Request Cancellation

NP Cancel must be sent before T9 expires, and will be distributed to all the Providers. For a coherent request, individual requests in a coherent request are cancelled one by one. If one of the individual requests is cancelled, then, for the "Complete/Update" process which will take place at the time of the porting, the messages (NP Complete, NP Update, NP Update Complete) to which the SequenceNumber of the cancelled porting request corresponds will be omitted (that is, in a coherent request with 5 requests, if request no. 3 is cancelled, then in the "Complete/Update" process only the SequenceNumbers of 1,2,4,5 will be used).

| Msg | Description of the action |
|-----------|---|
| 1. | The Recipient Provider sends a porting request. The T0 timer defines the start of the message flow. The MessageID and ProcessID are generated by the RE. For the initial message, the ProcessID is the same as the MessageID. |
| 2. | The RE notifies the Recipient Provider that the message was received and that it will be re-routed, and returns the assigned message and process IDs. |
| 3. | The RE re-routes the message to the Donor or Holding Provider. |
| 4. | The Holding Provider validates and accepts the porting request, and agrees to one of the porting windows suggested by the Recipient Provider by sending an NP Request Confirmation to the RE. The time limit for response by sending this message is T3, counting from T0. |
| 5. | The RE notifies the Recipient Provider that the message was accepted and will be re-routed, and returns the assigned IDs. |
| 6. and 7. | The RE re-routes the response to the Recipient Provider and distributes the same message to all the Providers. Providers which use offline supply systems now have the necessary information to update their routing databases. |
| 8. | Before timer T9 expires, the Recipient Provider decides to cancel the request and sends NP Cancel containing the EROrderNumber associated with the request for cancellation. |
| 9. | The RE notifies the Provider that the message was accepted and will be re-routed, and returns the assigned IDs. |
| 10. | The RE re-routes the message to the Holding Provider which cancels the porting and removes it from the routing database where offline supply is being used. |
| 11. | The Holding Provider recognises the cancellation up to T6 after the NP Cancel message is sent. |
| 12. | The RE notifies the Holding Provider that the message was accepted and that it will be re-routed, and returns the assigned IDs. |
| 13. | The RE re-routes the message to all the other Providers which remove the porting from their routing databases where offline supply is being used. |
| 14. | All the other Providers recognise the cancellation in T10 after the NP Cancel message is sent. |
| 15. | The RE notifies the Providers that the messages were accepted and that they will be re-routed, and returns the assigned IDs. |
| 16. | After the timer T10 has expired, the RE re-routes an NP Cancel Confirmation message to the Recipient Provider with a list of the Providers that have responded by sending an NP Cancel Confirmation message by that date. The situation is now the same as before T0. Porting will not occur. NP Cancel Confirmation messages received after this message is sent will be accepted by the RE, but will not be re-routed. NP Cancel Confirmation messages sent after T10 will update the Porting Status Table available to all the Providers via the NP Information Request procedure. |

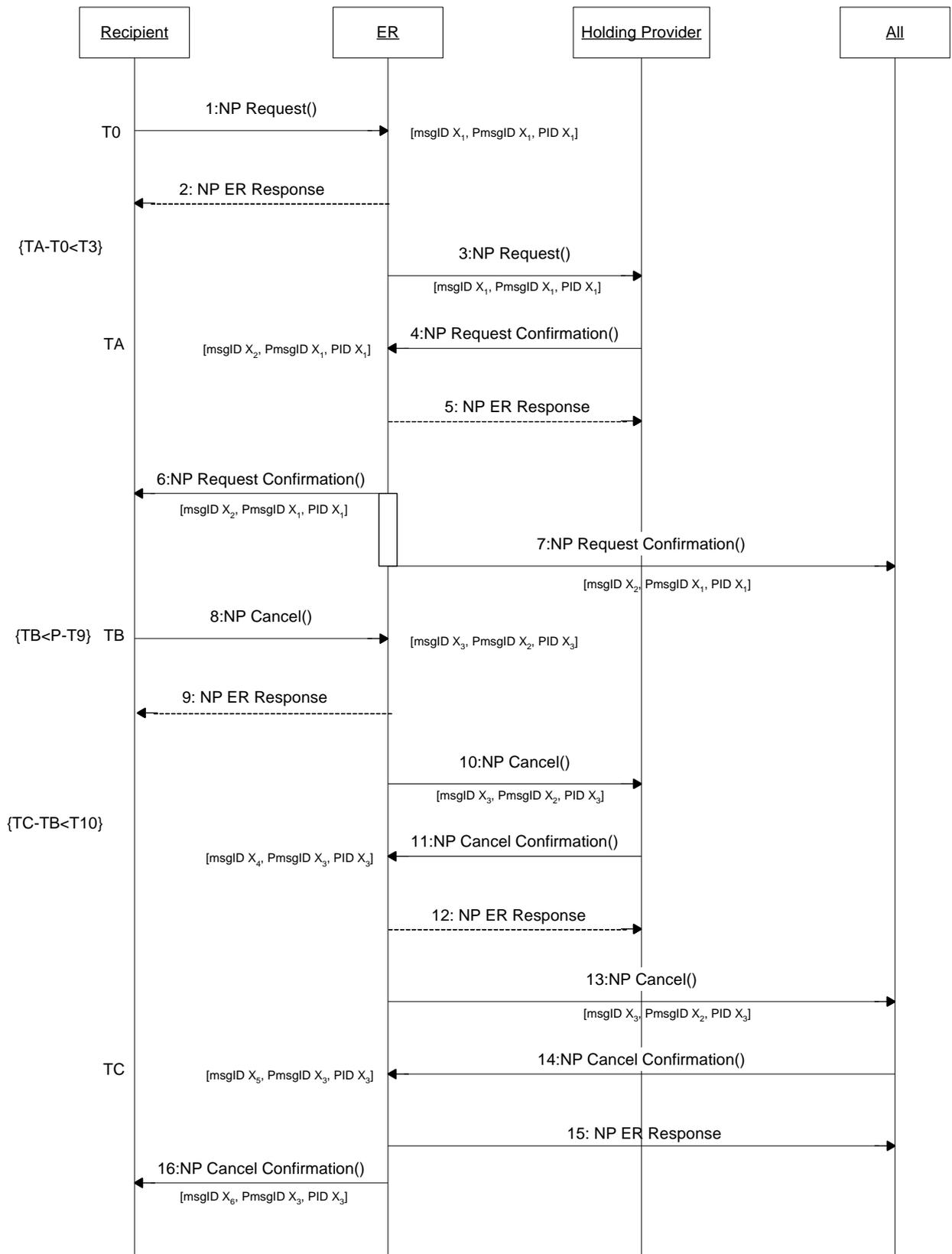


Figure 10 – NP Request Cancellation

3.5.2 NP Return Cancellation

With regard to the NP Return process, the NP Return Confirmation is distributed to all the Providers after timer T5 plus T18 have expired (see section 3.3). The NP Cancel must be sent before T18 plus T17 expires, and therefore the NP Return Confirmation will not be distributed to the Providers. Up to this point, only the RE is involved. As such, the RE does not re-route the NP Cancel.

| Msg | Description of the action |
|-----|---|
| 1. | The Holding Provider has received a termination request from the subscriber, and notifies the RE in T16 that the number (number range) will be returned. From then on, the RE is responsible for the return process. The RE starts the quarantine period associated with the number(s). Timer R (return time) in the sequential diagram (dotted line) illustrates the end of the quarantine period. |
| 2. | The RE notifies the Holding Provider that the message was accepted and that it will be re-routed, and returns the assigned IDs. |
| 3. | Before timer T18+T17 expire, the Holding Provider decides to cancel the return process (for example, because the Subscriber changed his mind, and wishes to maintain the subscription with the same Provider). The EROrderNumber corresponds to the process that is to be cancelled. |
| 4. | The RE notifies the Holding Provider that the message was accepted, and returns the assigned IDs. |
| 5. | The RE recognises the cancellation, and stops the quarantine period. The situation is now the same as it was before T0. |

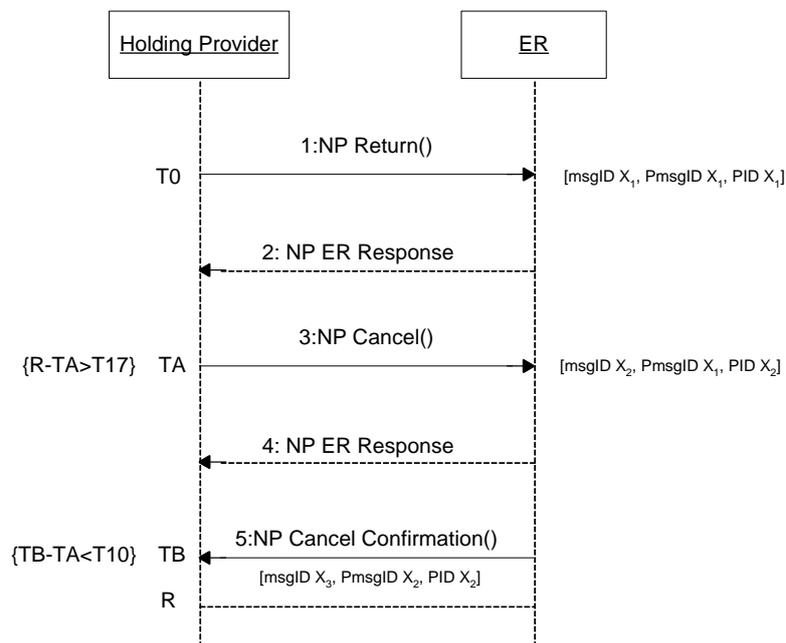


Figure 11 - NP Return Cancellation

3.5.3 NP NRN Alteration Cancellation

The NP Cancel must be sent before T13 expires, and then the NP Cancel Confirmation will be distributed to all the Providers.

| Msg | Description of the action |
|-----|---|
| 1. | The Holding Provider starts the NRN alteration for the number(s). |

| Msg | Description of the action |
|--------------|---|
| 2. | The RE notifies the Holding Provider that the message was accepted and that it will be re-routed, and returns the assigned IDs. |
| 3. and 4. | The RE distributes NP NRN Alteration Confirmation to all the Providers. All the Providers with offline supply systems now have all the necessary information to update their routing databases (U1). |
| 5. | Before T13 expires, the Holding Provider decides to cancel the NRN Alteration process and sends NP Cancel with the EROrderNumber associated with the process to the RE. |
| 6. | The RE notifies the Holding Provider that the message was accepted and that it will be re-routed, and returns the assigned IDs. |
| 7. | The RE re-routes the message NP Cancel to all the Providers, and those which update the respective database must remove the entry. |
| 8. | All the Providers recognise the cancellation by sending an NP Cancel Confirmation to the RE in T10. |
| 9. | The RE notifies the Providers that the message was accepted and that it will be re-routed, and returns the assigned IDs. |
| 10. | After timer T10 has expired, the RE re-routes an NP Cancel Confirmation message to the Recipient Provider with the list of Providers that responded by sending NP Cancel Confirmation by that date. The situation is now the same as before T0. Porting will not occur. NP Cancel Confirmation messages received after this message is sent will be accepted by the RE, but will not be re-routed. NP Cancel Confirmation messages sent after T10 will update the Porting Status Table available to all the Providers via the NP Information Request procedure. |

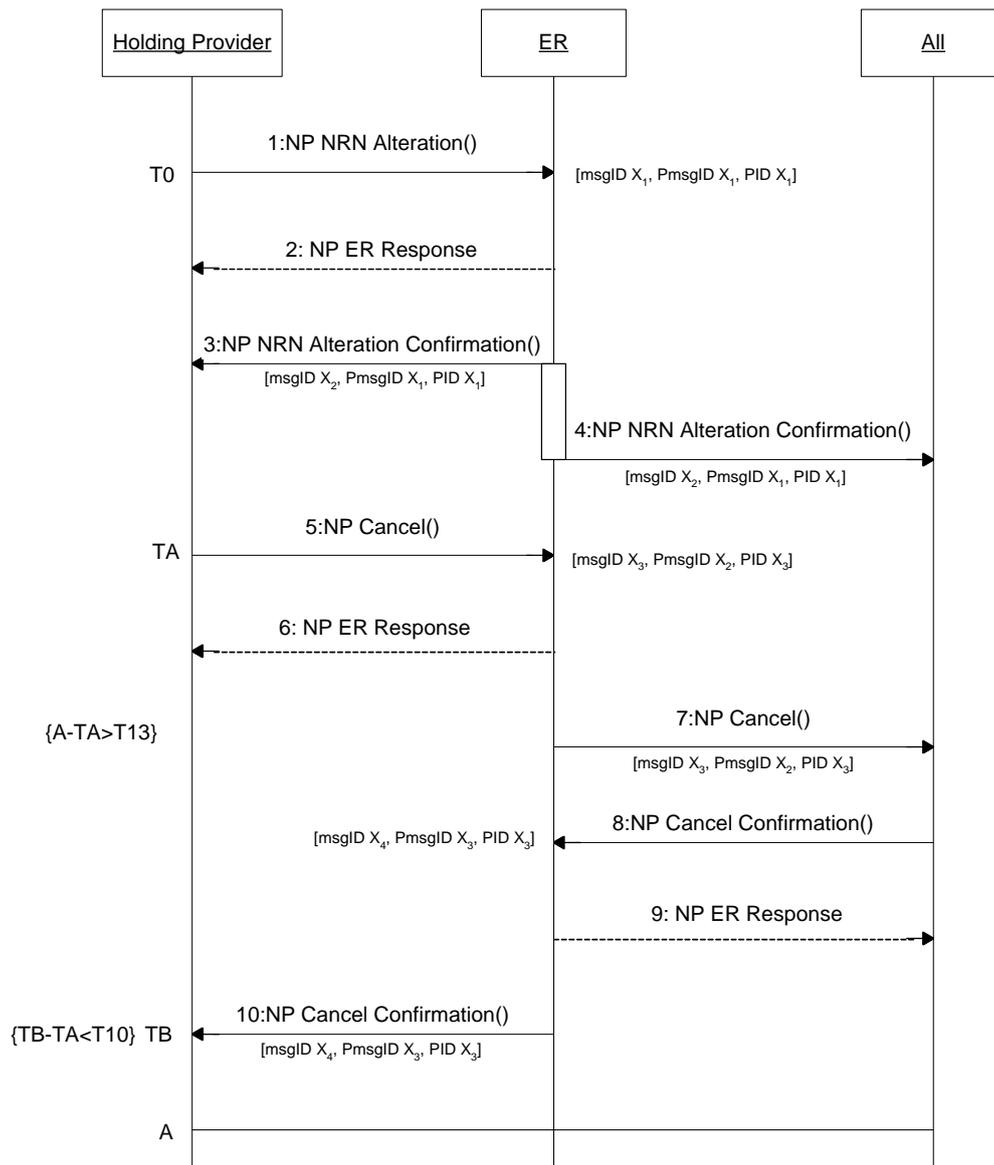


Figure 12 - NP NRN Alteration Cancellation

3.6 Porting Request Alteration

There is no specific procedure for changing a request, since this is regarded as being the same as cancelling the request made and sending a new request.

3.7 NRN Synchronisation Processes

The RE provides two ways for the Providers to synchronise with the Reference Database via the NP Information Request procedure (3.8):

- daily incremental data (type 10 report); and
- complete reference information for ported numbers (type 0 report).

The Providers are responsible for collecting this data with the necessary frequency in order for their local database to be coherent with the RE Reference Database.

3.7.1 Daily information on Portability

Every day, immediately after midnight, a report is made available showing all the portings, alterations and returns of the previous day and those that will occur on that day.

3.7.2 Retrieval of information on NRN

The complete list of NP NRN Information may be obtained at any time and with the frequency required using the NP Information Request procedure described in section 3.8.

3.8 Information Request Process (NP Information Request)

This procedure should be used to request information from the RE. The following information will be supplied by the ER:

Information on the NRN:

- Report 0 Compilation of information on NRN
- Report 1 Information on NRNs for specific numbers
- Report 2 History of alterations for numbers or number ranges (only for the Providers involved in porting)

Information regarding porting requests from the requesting provider:

- Report 3 Requests made
- Report 4 Requests cancelled
- Report 5 Requests rejected
- Report 6 Requests pending confirmation
- Report 7 Requests pending execution
- Report 8 Requests completed
- Report 9 Status of Provider associated to flow

Daily information on portability:

- Report 10 Portability information report

| Msg | Description of the action |
|-----|--|
| 1. | A Provider requests information from the RE (for example, a list of pending requests). |
| 2. | The RE returns the corresponding data. |

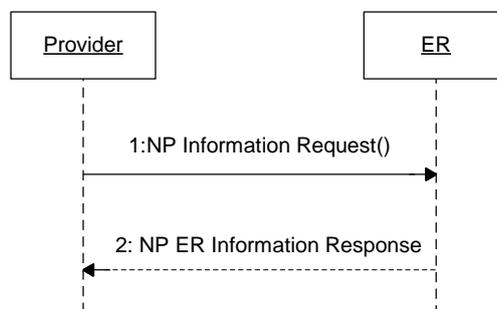


Figure 13 – NP Information Request

3.9 NP Error

Generally, when a Provider tries to send a message and the RE detects an error, the RE returns an NP Error. The Provider then has to resend the message. An NP Error may also be the result of a timer having expired.

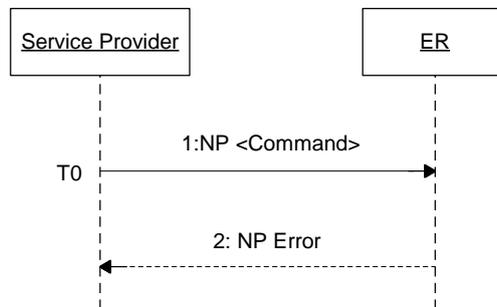


Figure 14 – NP Error

3.10 Role of RE in the case of extinction of service by a Provider

In the case of a provider extinguishing a service, the RE performs the following functions:

3.10.1 Functions performed by the RE between the start of the extinction of service and the end of the quarantine period

The functions in the following sections are assumed by the RE from the date of the extinction of the service, publicised by ICP-ANACOM, until the end of the quarantine period.

3.10.1.1 Return Process (NP Return)

The RE starts all the return processes of ported-in numbers in the provider which extinguishes the service.

The RE acts, on behalf of the provider which extinguishes the service, in line with section 3.3 of the Administrative Procedures.

3.10.1.2 Request Process (NP Request)

The RE accepts the porting requests of numbers that the provider which extinguished the service held. In this situation it always accepts the first option of the porting day and window indicated in the porting request by sending a NP Request Confirmation message.

The RE acts, on behalf of the provider which extinguishes the service, in line with section 3.2 of the Administrative Procedures.

3.10.2 Functions performed by the RE after the quarantine period

3.10.2.1 Return Process (NP Return)

At the end of the return process started by a provider with a ported number from a number block assigned to the provider that extinguished the service, the RE must also perform the following actions:

1. Erase the number from the table which contains the numbers able to be ported;

2. Advise the first Holding Provider of the number counting from the date of the extinction of the service, publicised by the ICP-ANACOM, that the number is erased from the table which contains the numbers able to be ported, and that it must be returned to ICP-ANACOM.

4 Timers

All the timers refer to working time (work hours), e.g. working days, working hours, working minutes (not applicable to months)

Working days are understood as: Monday to Friday, excluding public holidays; the hours between 03:00 and 06:00 are not considered to be working hours (with regard to information systems). Thus, if a message has a maximum response time of 30 minutes, if it is sent at 02:50, the response must be sent by 06:20. For a message with a maximum response time of 2 days and 2 hours which is sent at 02:00 on Friday, the response must be sent by 07:00 on Tuesday.

| Timer | Name of timer | Time limit | Description |
|-------|---|---|---|
| T0 | Start | No limit | Time reference when the first message in a sequence is sent. |
| T1 | RE response time | 15 minutes | Maximum time, counting from T0, to process messages received and return NP ER Response or NP Error. |
| T2 | Maximum time to send all messages in a coherent request | 60 minutes | Maximum time, counting from T0, to send all messages in a coherent request. |
| T3 | Maximum response time for a porting request | 1 day (24 consecutive hours of working days) | Maximum time, counting from T0, for the holding provider to accept one of the porting windows proposed by the recipient provider or reject a porting request. |
| T4 | Minimum time until porting (fixed) | 2 days (48 consecutive hours of working days) | The first chronological porting window may not be requested less than T4 after T0, for fixed, non-geographic and roaming numbers. |
| T4M | Minimum time until porting (mobile) | 2 days (48 consecutive hours of working days) | The first chronological porting window may not be requested less than T4M after T0, for mobile numbers. |
| T5 | Maximum time until porting | 20 days | The last chronological porting window may not be requested for more than T5 after T0. |
| T6 | Response time of the holding provider for a cancellation of porting request | 2 hours | Maximum time, counting from the moment the RE sends a Request Cancellation message to the moment the holding provider must confirm the cancellation of a porting request. |
| T7 | Lower limit of porting window | -90 minutes | Start of porting window, in relation to the AgreedPortingTime parameter. |

| Timer | Name of timer | Time limit | Description |
|-------|---|-------------|--|
| T8 | Upper limit of porting window | +90 minutes | End of porting window, in relation to the AgreedPortingTime parameter. |
| T9 | Point of no return of porting request | - 12 hours | A porting request may not be cancelled after T9 before the AgreedPortingTime. |
| T10 | Maximum time until NP Cancel Confirmation | 2 hours | Maximum time, counting from the sending of the cancellation message until the sending of a NP Cancel Confirmation by all the Providers. |
| T11 | Minimum time until NRN alteration | 2 days | The NRN alteration must be requested with minimum advance notice of T11 before the alteration is due to take place. |
| T12 | Maximum time until NRN alteration | 30 days | The NRN alteration must be requested with maximum advance notice of T12 before the alteration is due to take place. |
| T13 | Point of no return of NRN alteration | -12 hours | An NRN alteration may not be cancelled after T13 before the alteration is due to take place. |
| T14 | Last sending of NP Update | 10 minutes | If the RE does not receive an NP Alteration Complete or an NP Complete from the recipient provider or from the holding provider before T14 before the porting window or NRN alteration time, the RE sends an NP Update message to all the providers just the same. |
| T15 | NP Update response time | 10 minutes | Maximum response time to an NP Update Complete . |
| T16 | Time limit for sending NP Return | 2 days | The holding provider must send NP Return by T16 after use of the number has terminated. |
| T17 | NP Return Cancellation | 0 | NP Return cancellation may be sent by the holding provider until the end of the quarantine period. |
| T18 | Quarantine period | 3 months | The return of the number to the donor provider occurs at the end of the quarantine period, that is, T18 after use of the number has terminated. |
| T19 | Storage period for geographic, mobile and roaming numbers | 6 months | Geographic, mobile and roaming numbers may be re-used by the donor provider T19 after use of the numbers has terminated. |
| T20 | Storage time for non-geographic numbers | 12 months | Non-geographic numbers may be re-used by the donor provider T20 after use of the numbers has terminated. |

5 Messages

5.1 Message Types and Parameters

If a parameter is marked as optional '(O)', this signifies that the parameter may or may not be present. If present, and with content which is not zero, its value must be valid. The RE must maintain any optional parameters of a message received from a Provider when re-routing that message to another Provider.

If a parameter is marked as mandatory '(M)', this signifies that the parameter must be present and that the content must be present and valid.

If a parameter is marked as not applicable 'N/A', this signifies that the parameter must not be present in that message. If the parameter is present (which is an error), the message must be signalled with error.

| Message TypeID | Message Name | Message Function |
|----------------|--------------------------------|--|
| 1 | NP Request | Request to port number |
| 2 | NP Return | Notification of return of ported number to number donor |
| 3 | NP NRN Alteration | Notification of NRN alteration for a ported number |
| 4 | NP ER Response | Confirmation by the RE that a request, cancellation, return or alteration message was received and validated as OK |
| 5 | NP Request Confirmation | Confirmation of request by Holding Provider |
| 6 | NP Return Confirmation | Confirmation of return of number by the RE |
| 7 | NP NRN Alteration Confirmation | Confirmation of NRN alteration by the RE |
| 8 | NP Complete | Porting operation concluded |
| 9 | NP NRN Alteration Complete | NRN alteration concluded |
| 10 | NP Update | Indication of updating of new porting data on the online databases |
| 11 | NP Update Complete | Confirmation of updating of new porting data on the online databases |
| 12 | NP Cancel | Cancellation of request, return or NRN alteration |
| 13 | NP Cancel Confirmation | Confirmation of cancellation of request, return or NRN alteration |
| 14 | Reserved for future use | |
| 15 | Reserved for future use | |
| 16 | NP Information Request | Request to RE for information |
| 17 | NP ER Information Response | Response from RE to a request for information from a Provider |
| 18 | NP Reject | Rejection of request to port number |
| 19 | NP Error | Notification from the RE of a communication error (RE received message with error) |

5.1.1 NP Request

The recipient provider uses the NP Request message to start a porting request for one or more telephone numbers, or one or more number ranges. The RE re-routes the NP Request to the holding provider after receiving it from the recipient provider.

The optional and mandatory parameters, and the timer values, depend on the type of number - fixed, roaming or mobile - for which porting is being requested. The TypeOfNumber parameter indicates precisely this. Non-geographic numbers (800, 808, etc.) are handled as fixed numbers with regard to porting requests. Roaming numbers are handled as fixed numbers with regard to porting requests. Numbers relating to a service number are ported separately whenever necessary, using suitable procedures.

| NPRequest ::= 'MessageType=1' | | | | |
|-------------------------------|-----------|--------|-------------|--------|
| NPRequest | To the RE | | From the RE | |
| | Fixed | Mobile | Fixed | Mobile |
| MessageTypeID | (M) | (M) | (M) | (M) |
| MessageDateAndTime | (M) | (M) | (M) | (M) |
| EROrderNumber | N/A | N/A | (M) | (M) |
| ProcessID | N/A | N/A | (M) | (M) |
| MessageID | N/A | N/A | (M) | (M) |
| ParentMessageID | N/A | N/A | (M) | (M) |
| OriginatingOrderNumber | (M) | (M) | (M) | (M) |
| TotalNumberOfRequests | (M) | (M) | (M) | (M) |
| SequenceNumber | (M) | (M) | (M) | (M) |
| DonorID | N/A | N/A | (M) | (M) |
| HolderID | N/A | N/A | (M) | (M) |
| RecipientID | (O) | (O) | (O) | (O) |
| RecipientContactName | (O) | (O) | (O) | (O) |
| RecipientContactTelephone | (O) | (O) | (O) | (O) |
| RecipientContactFax | (O) | (O) | (O) | (O) |
| RecipientContactE-mail | (O) | (O) | (O) | (O) |
| CustomerName | (M) | (M) | (M) | (M) |
| CustomerSIM | (O) | (M) | (O) | (M) |
| CustomerStreet | (O) | (O) | (O) | (O) |
| CustomerLocation | (O) | (O) | (O) | (O) |
| CustomerCodeAndLocation | (O) | (O) | (O) | (O) |
| CustomerDocumentIDType | (M) | (M) | (M) | (M) |
| CustomerDocumentID | (M) | (M) | (M) | (M) |
| TypeOfNumber | (M) | (M) | (M) | (M) |
| PABXMainTelephoneNumber | (O) | N/A | (O) | N/A |
| FirstTelephoneNumber | (M) | (M) | (M) | (M) |
| LastTelephoneNumber | (M) | (M) | (M) | (M) |
| Facilities | (O) | (O) | (O) | (O) |
| PresentNRN ² | N/A | N/A | (O) | (O) |
| NewNRN ³ | (O) | (O) | (O) | (O) |
| ChargingInfo | (O) | (O) | (O) | (O) |
| 1stPortingTime | (M) | (M) | (M) | (M) |
| 2ndPortingTime | (M) | (M) | (M) | (M) |
| 3rdPortingTime | (M) | (M) | (M) | (M) |

² PresentNRN does not exist for the first porting (otherwise it must be filled in)

³ NewNRN is not applicable in the case of porting to the donor provider (otherwise it must be filled in)

| NPRequest ::= 'MessageType=1' | | | | |
|-------------------------------|-----------|--------|-------------|--------|
| NPRequest | To the RE | | From the RE | |
| | Fixed | Mobile | Fixed | Mobile |
| CoordinatedAction | (O) | (O) | (O) | (O) |
| UpdateAction | N/A | N/A | (M) | (M) |
| Remarks | (O) | (O) | (O) | (O) |
| Auxiliary1 | (O) | (O) | (O) | (O) |
| Auxiliary2 | (O) | (O) | (O) | (O) |
| Auxiliary3 | (O) | (O) | (O) | (O) |
| Auxiliary4 | (O) | (O) | (O) | (O) |
| Auxiliary5 | (O) | (O) | (O) | (O) |
| Auxiliary6 | (O) | (O) | (O) | (O) |

5.1.2 NP Return

The Holding Provider uses the NP Return message to inform the RE of the termination of a subscription of ported numbers or number ranges, thus setting in motion the start of the quarantine and storage periods.

The use of this message is the same for all types of number.

| NPReturn ::= 'MessageType=2' | |
|------------------------------|-----------|
| NPReturn | To the RE |
| MessageTypeId | (M) |
| MessageDateAndTime | (M) |
| OriginatingOrderNumber | (M) |
| TypeOfNumber | (M) |
| PABXMainTelephoneNumber | (O) |
| FirstTelephoneNumber | (M) |
| LastTelephoneNumber | (M) |
| TerminationDate | (M) |
| Remarks | (O) |
| Auxiliary1 ⁴ | (O) |
| Auxiliary2 ⁵ | (O) |
| Auxiliary3 ⁶ | (O) |
| Auxiliary4 | (O) |
| Auxiliary5 | (O) |
| Auxiliary6 | (O) |

5.1.3 NRN Alteration

The holding provider uses the NP NRN Alteration message to inform the RE of the alteration of an NRN.

There are two types of NRN alteration procedures – the normal procedure and the urgent procedure, indicated by the definition of the UrgentAlteration parameter.

For the normal procedure, the NRN alteration may be requested up to T12 before NRNAlterationTime, but never less than T11 in advance.

⁴ Local Loop Number

⁵ Loop HDF Block

⁶ Loop HDF Termination

If the urgent procedure is used, the NRNAlterationTime parameter will be ignored – the alteration will be carried out immediately.

| NPNRNAIt ::= 'MessageType=3' | |
|-------------------------------------|------------------|
| NPNRNAIt | To the RE |
| MessageTypeID | (M) |
| MessageDateAndTime | (M) |
| OriginatingOrderNumber | (M) |
| TypeOfNumber | (M) |
| PABXMainTelephoneNumber | (O) |
| FirstTelephoneNumber | (M) |
| LastTelephoneNumber | (M) |
| NewNRN | (M) |
| ChargingInfo | (O) |
| NRNAlterationTime | (M) |
| UrgentAlteration | (M) |
| Remarks | (O) |
| Auxiliary1 | (O) |
| Auxiliary2 | (O) |
| Auxiliary3 | (O) |
| Auxiliary4 | (O) |
| Auxiliary5 | (O) |
| Auxiliary6 | (O) |

5.1.4 NP ER Response

The RE uses this message type to return the unique order number assigned by the RE in the EROrderNumber parameter.

| NPERResp ::= 'MessageType=4' | |
|-------------------------------------|--------------------|
| NPERResp | From the RE |
| MessageTypeID | (M) |
| OriginatingMessageTypeID | (M) |
| MessageDateAndTime | (M) |
| EROrderNumber | (M) |
| ProcessID | (M) |
| MessageID | (M) |
| ParentMessageID | (M) |
| OriginatingOrderNumber | (O) |
| SequenceNumber ⁷ | (O) |

5.1.5 NP Request Confirmation

The Donor or Holding Provider uses this message to confirm a porting request, and the RE routes it to the Recipient Provider and all the other Providers.

| NPReqConf ::= 'MessageType=5' | | |
|--------------------------------------|------------------|--------------------|
| NPReqConf | To the RE | From the RE |
| MessageTypeID | (M) | (M) |
| MessageDateAndTime | (M) | (M) |
| EROrderNumber | (M) | (M) |

⁷ Mandatory if present in the preceding message

| NPReqConf ::= 'MessageType=5' | | |
|--------------------------------------|------------------|--------------------|
| NPReqConf | To the RE | From the RE |
| ProcessID | (M) | (M) |
| MessageID | N/A | (M) |
| ParentMessageID | (M) | (M) |
| TotalNumberOfRequests | (M) | (M) |
| SequenceNumber | (M) | (M) |
| DonorID | N/A | (M) |
| HolderID | N/A | (M) |
| RecipientID | N/A | (M) |
| RecipientContactName | N/A | (O) |
| RecipientContactTelephone | N/A | (O) |
| RecipientContactFax | N/A | (O) |
| RecipientContactE-mail | N/A | (O) |
| HolderContactName | (O) | (O) |
| HolderContactTelephone | (O) | (O) |
| HolderContactFax | (O) | (O) |
| HolderContactE-mail | (O) | (O) |
| TypeOfNumber | N/A | (M) |
| PABXMainTelephoneNumber | N/A | (O) |
| FirstTelephoneNumber | N/A | (M) |
| LastTelephoneNumber | N/A | (M) |
| PresentNRN ⁸ | N/A | (O) |
| NewNRN ⁹ | N/A | (O) |
| ChargingInfo | N/A | (O) |
| AgreedPortingTime | (M) | (M) |
| UpdateAction | N/A | (M) |
| Remarks | (O) | (O) |
| Auxiliary1 ¹⁰ | (O) | (O) |
| Auxiliary2 ¹¹ | (O) | (O) |
| Auxiliary3 ¹² | (O) | (O) |
| Auxiliary4 | (O) | (O) |
| Auxiliary5 | (O) | (O) |
| Auxiliary6 | (O) | (O) |

5.1.6 NP Return Confirmation

The RE uses this message to inform all the Providers of the return of a ported number T5 after the end of the quarantine period.

⁸ PresentNRN does not exist for the first porting (otherwise it must be filled in)

⁹ NewNRN is not applicable in the case of porting to the donor provider (otherwise it must be filled in)

¹⁰ Local Loop Number

¹¹ Loop HDF Block

¹² Loop HDF Termination

| NPRetConf ::= 'Message Type6' | |
|--------------------------------------|--------------------|
| NPRetConf | From the RE |
| MessageTypeID | (M) |
| MessageDateAndTime | (M) |
| EROrderNumber | (M) |
| ProcessID | (M) |
| MessageID | (M) |
| ParentMessageID | (M) |
| DonorID | (M) |
| HolderID | (M) |
| TypeOfNumber | (M) |
| PABXMainTelephoneNumber | (O) |
| FirstTelephoneNumber | (M) |
| LastTelephoneNumber | (M) |
| PresentNRN | (M) |
| TerminationDate | (M) |
| ReturnDate | (M) |
| UpdateAction | (M) |
| Remarks | (O) |
| Auxiliary1 | (O) |
| Auxiliary2 | (O) |
| Auxiliary3 | (O) |
| Auxiliary4 | (O) |
| Auxiliary5 | (O) |
| Auxiliary6 | (O) |

5.1.7 NP NRN Alteration Confirmation

The RE uses this message to inform all the Providers about an NRN alteration.

| NPNRNConf ::= 'MessageTypeID=7' | |
|--|--------------------|
| NPNRNConf | From the RE |
| MessageTypeID | (M) |
| MessageDateAndTime | (M) |
| EROrderNumber | (M) |
| ProcessID | (M) |
| MessageID | (M) |
| ParentMessageID | (M) |
| HolderID | (M) |
| TypeOfNumber | (M) |
| PABXMainTelephoneNumber | (O) |
| FirstTelephoneNumber | (M) |
| LastTelephoneNumber | (M) |
| PresentNRN | (M) |
| NewNRN | (M) |
| ChargingInfo | (O) |
| NRNAlterationTime | (M) |
| UrgentAlteration | (M) |
| UpdateAction | (M) |
| Remarks | (O) |

| NPNRNConf ::= 'MessageTypeID=7' | |
|--|--------------------|
| NPNRNConf | From the RE |
| Auxiliary1 | (O) |
| Auxiliary2 | (O) |
| Auxiliary3 | (O) |
| Auxiliary4 | (O) |
| Auxiliary5 | (O) |
| Auxiliary6 | (O) |

5.1.8 NP Complete

The Recipient Provider uses this message to notify the RE that the access connection has been established and that the routing databases in the Recipient Provider have been updated. The ParentMessageID parameter refers to the NP Request Confirmation that confirmed the porting.

| NPCmpl ::= 'MessageTypeID=8' | |
|-------------------------------------|------------------|
| NPCmpl | To the RE |
| MessageTypeID | (M) |
| MessageDateAndTime | (M) |
| EROrderNumber | (M) |
| ParentMessageID | (M) |
| SequenceNumber | (M) |
| RecipientID | (M) |

5.1.9 NP NRN Alteration Complete

The Holding Provider uses this message to notify the RE that its routing database has been updated with the new NRN.

| NPNRNCompl ::= 'MessageTypeID=9' | |
|---|------------------|
| NPNRNCompl | To the RE |
| MessageTypeID | (M) |
| MessageDateAndTime | (M) |
| EROrderNumber | (M) |
| ParentMessageID | (M) |
| HolderID | (M) |

5.1.10 NP Update

The RE uses this message to notify about the updating of the Providers' databases for a number or number range. This message is sent to all the Providers, except the Provider which created the NP Complete or NP NRN Alteration Complete. When the RE creates an NP Update, it is assumed that the numbers database located in the RE has been updated, and that this information was removed from the Reference Database.

| NPUpdate ::= 'MessageTypeID=10' | |
|--|--------------------|
| NPUpdate | From the RE |
| MessageTypeID | (M) |
| MessageDateAndTime | (M) |
| EROrderNumber | (M) |

| NPUdate ::= 'MessageTypeID=10' | |
|---------------------------------------|--------------------|
| NPUdate | From the RE |
| ProcessID | (M) |
| MessageID | (M) |
| ParentMessageID | (M) |
| TotalNumberOfRequests ⁸ | (O) |
| SequenceNumber ¹³ | (O) |
| DonorID | (M) |
| HolderID | (M) |
| RecipientID | (O) |
| RecipientContactName | (O) |
| RecipientContactTelephone | (O) |
| RecipientContactFax | (O) |
| RecipientContactE-mail | (O) |
| HolderContactName | (O) |
| HolderContactTelephone | (O) |
| HolderContactFax | (O) |
| HolderContactE-mail | (O) |
| TypeOfNumber | (M) |
| PABXMainTelephoneNumber | (O) |
| FirstTelephoneNumber | (M) |
| LastTelephoneNumber | (M) |
| PresentNRN ¹⁴ | (O) |
| NewNRN ¹⁵ | (O) |
| ChargingInfo | (O) |
| AgreedPortingTime | (M) |
| UpdateAction | (M) |
| Remarks | (O) |
| Auxiliary1 | (O) |
| Auxiliary2 | (O) |
| Auxiliary3 | (O) |
| Auxiliary4 | (O) |
| Auxiliary5 | (O) |
| Auxiliary6 | (O) |

5.1.11 NP Update Complete

All the Providers use this message to confirm that their databases and systems have been updated in accordance with the information in the preceding NP Request Confirmation or NP Update, depending on whether they use offline or online supply systems. Providers which use offline supply systems send an NP Update Complete message during the porting window, while Providers which use online supply systems return the NP Update Complete message in response to the ER's NP Update message. The RE sends the NP Update Complete to the Provider which started the process listing all the Providers that have already successfully carried out this operation.

NPUdCompl ::= 'MessageTypeID=11'

¹³ Mandatory if present in the preceding message.

¹⁴ PresentNRN does not exist for the first porting (otherwise it must be filled in).

¹⁵ NewNRN is not applicable in the case of porting to the donor provider or in the case of return (otherwise it must be filled in).

| NPUpdCompl | To the RE | From the RE |
|------------------------------|------------------|--------------------|
| MessageTypeID | (M) | (M) |
| MessageDateAndTime | (M) | (M) |
| EROrderNumber | (M) | (M) |
| ProcessID | (M) | (M) |
| MessageID | N/A | (M) |
| ParentMessageID | (M) | (M) |
| SequenceNumber ¹⁶ | (O) | (O) |
| ProviderList | N/A | (M) |

5.1.12 NP Cancel

The Recipient Provider uses this message to cancel the NP Request and the Holding Provider uses this message to cancel the NP Return or NP NRN Alteration. The NP Cancel may not be sent before the NP ERResponse has been received from the RE. The RE re-routes the NP Cancel to all the other Providers.

The NP Cancel always cancels a message/request, whether it is a specific NP Request Confirmation, a specific NP Return or a specific NP NRN Alteration Confirmation. The ParentMessageID will be the MessageID of the message that the NP Cancel cancels.

| NPCancel ::= 'MessageTypeID=12' | | |
|--|------------------|--------------------|
| NPCancel | To the RE | From the RE |
| MessageTypeID | (M) | (M) |
| MessageDateAndTime | (M) | (M) |
| EROrderNumber | (M) | (M) |
| ProcessID | N/A | (M) |
| MessageID | N/A | (M) |
| ParentMessageID | (M) | (M) |
| SequenceNumber ¹⁷ | (O) | (O) |
| TypeOfNumber | N/A | (M) |
| PABXMainTelephoneNumber | N/A | (O) |
| FirstTelephoneNumber | N/A | (M) |
| LastTelephoneNumber | N/A | (M) |
| PresentNRN ¹⁸ | N/A | (O) |
| NewNRN ¹⁹ | N/A | (O) |
| ChargingInfo | N/A | (O) |
| Remarks | (O) | (O) |
| Auxiliary1 | (O) | (O) |
| Auxiliary2 | (O) | (O) |
| Auxiliary3 | (O) | (O) |
| Auxiliary4 | (O) | (O) |
| Auxiliary5 | (O) | (O) |
| Auxiliary6 | (O) | (O) |

¹⁶ Mandatory if present in the preceding message

¹⁷ Mandatory if present in the preceding message

¹⁸ PresentNRN does not exist for the first porting (otherwise it must be filled in).

¹⁹ NewNRN is not applicable in the case of porting to the donor provider or in the case of return (otherwise it must be filled in).

5.1.13 NP Cancel Confirmation

This message type is used by the Provider that has received an NP Cancel to confirm cancellation of an existing porting request, and by the RE to confirm cancellation of a return or an NRN alteration.

| NPCanConf ::= 'MessageTypeID=13' | | |
|---|------------------|--------------------|
| NPCanConf | To the RE | From the RE |
| MessageTypeID | (M) | (M) |
| MessageDateAndTime | (M) | (M) |
| EROrderNumber | (M) | (M) |
| ProcessID | (M) | (M) |
| MessageID | N/A | (M) |
| ParentMessageID | (M) | (M) |
| SequenceNumber ²⁰ | (O) | (O) |
| ProviderList | N/A | (M) |

5.1.14 NP Information Request

The Providers use this message to request specific information from the RE. The following information is available:

Information on the NRN:

- Report 0 Compilation of information on NRN
- Report 1 Information on NRNs for specific numbers
- Report 2 History of alterations for numbers or number ranges (only for the Providers involved in porting)

Information regarding porting requests from the requesting provider:

- Report 3 Requests made
- Report 4 Requests cancelled
- Report 5 Requests rejected
- Report 6 Requests pending confirmation
- Report 7 Requests pending execution
- Report 8 Requests completed
- Report 9 Status of Provider associated to flow

Daily information on portability:

- Report 10 Portability information report

| NPInfReq ::= 'MessageTypeID=16' | |
|--|--------------------------|
| NPPortInf | From the Provider |
| MessageTypeID | (M) |
| MessageDateAndTime | (M) |
| EROrdernumberFrom | (O) |
| EROrdernumberTo | (O) |
| DonorID | (O) |
| HolderID | (O) |
| TypeOfNumber | (O) |
| FirstTelephoneNumber | (O) |
| LastTelephoneNumber | (O) |

²⁰ Mandatory if present in the preceding report

| NPInfReq ::= 'MessageTypeID=16' | |
|--|--------------------------|
| NPPortInf | From the Provider |
| PresentNRN | (O) |
| DateTimeFrom | (O) |
| DateTimeTo | (O) |
| ReportType | (M) |

5.1.15 NP ER Information Response

This message is only used for the files interface. The same information is returned when the result of the use of the Stored Procedure Call interface is returned. The RE returns this message in response to the NP Information Request.

| NPERInfResp ::= 'MessageTypeID=17' | |
|---|--------------------|
| NPERInfResp | From the RE |
| MessageTypeID | (M) |
| MessageDateAndTime | (M) |
| ReportType | (M) |
| NumberOfRows | (M) |
| [Report] | (M) |

For more detailed information on the content of a [Report] see section 8.3.1.6.1.

5.1.16 NP Reject

The Holding Provider uses this message to reject a porting request due to one of the defined causes of rejection. Abbreviation: NPReject

| NPReject ::= 'MessageTypeID=18' | | |
|--|------------------|--------------------|
| NPReject | To the RE | From the RE |
| MessageTypeID | (M) | (M) |
| MessageDateAndTime | (M) | (M) |
| EROrderNumber | (M) | (M) |
| ProcessID | (M) | (M) |
| MessageID | N/A | (M) |
| ParentMessageID | (M) | (M) |
| TotalnumberOfRequests | (M) | (M) |
| SequenceNumber | (M) | (M) |
| DonorID | N/A | (M) |
| HolderID | N/A | (M) |
| RecipientID | N/A | (M) |
| TypeOfNumber | (M) | (M) |
| PABXMainTelephoneNumber | (O) | (O) |
| FirstTelephoneNumber | (M) | (M) |
| LastTelephoneNumber | (M) | (M) |
| PresentNRN ²¹ | (O) | (O) |
| NewNRN ²² | (O) | (O) |

²¹ PresentNRN does not exist for the first porting (otherwise it must be filled in).

²² NewNRN is not applicable in the case of porting to the donor provider (otherwise it must be filled in)

| NPReject ::= 'MessageTypeID=18' | | |
|--|------------------|--------------------|
| NPReject | To the RE | From the RE |
| ChargingInfo | (O) | (O) |
| ErrorCode | (M) | (M) |
| ErrorText | (M) | (M) |
| Remarks | (O) | (O) |
| Auxiliary1 | (O) | (O) |
| Auxiliary2 | (O) | (O) |
| Auxiliary3 | (O) | (O) |
| Auxiliary4 | (O) | (O) |
| Auxiliary5 | (O) | (O) |
| Auxiliary6 | (O) | (O) |

5.1.17 NP Error

Direct response to a message received from a Provider. This message is only used by the files interface. For the Stored Procedure Call interface, errors are returned as a result of the sending of a specific message. For errors reported that are not related to a specific message (timer expired), the NP Error occurs as a message in both interfaces, in the files interface and the Stored Procedure Call interface.

SequenceNumber is mandatory for errors reported in messages where sequence numbers are used.

The RE uses this message to report errors in messages sent by the Provider.

If an NP Error is received during an NP Coherent Request flow, all the individual NP Requests or NP Request Confirmations from then on that contain the error must be resent. Preceding messages that had already been accepted do not have to be resent.

| NPErrror ::= 'MessageTypeID=19' | |
|--|--------------------|
| NPErrror | From the RE |
| MessageTypeID | (M) |
| OriginatingMessageTypeID | (O) |
| MessageDateAndTime | (M) |
| EROrderNumber | (O) |
| ProcessID | (O) |
| ParentmessageID | (O) |
| OriginatingOrderNumber | (O) |
| SequenceNumber | (O) |
| TypeOfNumber | (O) |
| PABXMainTelephoneNumber | (O) |
| FirstTelephoneNumber | (O) |
| LastTelephoneNumber | (O) |
| PresentNRN | (O) |
| NewNRN | (O) |
| ErrorCode | (M) |
| ErrorText | (M) |
| Remarks | (O) |
| Auxiliary1 | (O) |
| Auxiliary2 | (O) |
| Auxiliary3 | (O) |
| Auxiliary4 | (O) |
| Auxiliary5 | (O) |
| Auxiliary6 | (O) |

5.2 Mapping between parameters and messages

Given that all messages pass through the RE, the notation X/Y is used to indicate the mandatory or optional parameters in the messages. X is the status of the parameter when sent to the RE, and Y is the status when sent by the RE.

Example: “-/m” signifies that the parameter is not to be sent from the Provider to the RE, but that it must be sent from the RE to the Provider.

| Message | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---------------------------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|
| Parameter | | M | | | | | | | | | | | | | | | | | | |
| MessageTypeID | m/m | m/m | m/- | m/- | -/m | m/m | -/m | -/m | m/- | m/- | -/m | m/m | m/m | m/m | | | m/- | -/m | m/m | -/m |
| OriginatingMessageTypeID | | | | | -/m | | | | | | | | | | | | | | | -/o |
| MessageDateAndTime | m/m | m/m | m/- | m/- | -/m | m/m | -/m | -/m | m/- | m/- | -/m | m/m | m/m | m/m | | | m/- | -/m | m/m | -/m |
| EROrderNumber | -/m | -/m | | | -/m | m/m | -/m | -/m | m/- | m/- | -/m | m/m | m/m | m/m | | | | | m/m | -/o |
| ProcessID | -/m | -/m | | | -/m | m/m | -/m | -/m | | | -/m | m/m | -/m | m/m | | | | | m/m | -/o |
| MessageID | -/m | -/m | | | -/m? | -/m | -/m | -/m | | | -/m | -/m | -/m | -/m | | | | | -/m | |
| ParentMessageID | -/m | -/m | | | -/m | m/m | -/m | -/m | m/- | m/- | -/m | m/m | m/m | m/m | | | | | m/m | -/o |
| OriginatingOrderNumber | m/- | m/- | m/- | m/- | -/o | | | | | | | | | | | | | | | -/o |
| TotalNumberOfRequests | m/m | m/m | | | | m/m | | | | | -/o | | | | | | | | m/m | |
| SequenceNumber | m/m | m/m | | | -/o | m/m | | | m/- | | -/o | o/o | o/o | o/o | | | | | m/m | -/o |
| DonorID | -/m | -/m | | | | -/m | -/m | | | | -/m | | | | | | o/- | | -/m | |
| HolderID | -/m | -/m | | | | -/m | -/m | -/m | | m/- | -/m | | | | | | o/- | | -/m | |
| RecipientID | -/m | -/m | | | | -/m | | | m/- | | -/o | | | | | | | | -/m | |
| RecipientContactName | o/o | o/o | | | | -/o | | | | | -/o | | | | | | | | | |
| RecipientContactTelephone | o/o | o/o | | | | -/o | | | | | -/o | | | | | | | | | |
| RecipientContactFax | o/o | o/o | | | | -/o | | | | | -/o | | | | | | | | | |
| RecipientContactE-mail | o/o | o/o | | | | -/o | | | | | -/o | | | | | | | | | |
| HolderContactName | | | | | | o/o | | | | | -/o | | | | | | | | | |
| HolderContactTelephone | | | | | | o/o | | | | | -/o | | | | | | | | | |
| HolderContactFax | | | | | | o/o | | | | | -/o | | | | | | | | | |
| HolderContactE-mail | | | | | | o/o | | | | | -/o | | | | | | | | | |
| CustomerName | m/m | m/m | | | | | | | | | | | | | | | | | | |
| CustomerSIM | o/o | m/m | | | | | | | | | | | | | | | | | | |
| CustomerStreet | o/o | o/o | | | | | | | | | | | | | | | | | | |
| CustomerLocation | o/o | o/o | | | | | | | | | | | | | | | | | | |
| CustomerCodeAndLocation | o/o | o/o | | | | | | | | | | | | | | | | | | |
| CustomerDocumentIDType | m/m | m/m | | | | | | | | | | | | | | | | | | |
| CustomerDocumentId | m/m | m/m | | | | | | | | | | | | | | | | | | |
| TypeOfNumber | m/m | m/m | m/- | m/- | | -/m | -/m | -/m | | | -/m | | -/m | | | | o/- | | m/m | -/o |
| PABXMainTelephoneNumber | o/o | -/o | o/- | o/- | | -/o | -/o | -/o | | | -/o | | -/o | | | | | | o/o | -/o |
| FirstTelephoneNumber | m/m | m/m | m/- | m/- | | -/m | -/m | -/m | | | -/m | | -/m | | | | o/- | | m/m | -/o |
| LastTelephoneNumber | m/m | m/m | m/- | m/- | | -/m | -/m | -/m | | | -/m | | -/m | | | | o/- | | m/m | -/o |
| Facilities | o/o | o/o | | | | | | | | | | | | | | | | | | |
| PresentNRN | -/o | -/o | | | | -/o | -/m | -/m | | | -/o | | -/o | | | | o/- | | o/o | -/o |
| NewNRN | o/o | o/o | | m/- | | -/o | | -/m | | | -/o | | -/o | | | | | | o/o | -/o |
| ChargingInfo | o/o | o/o | | o/- | | -/o | | -/o | | | -/o | | -/o | | | | | | o/o | |
| 1stPortingTime | m/m | m/m | | | | | | | | | | | | | | | | | | |
| 2ndPortingTime | m/m | m/m | | | | | | | | | | | | | | | | | | |
| 3rdPortingTime | m/m | m/m | | | | | | | | | | | | | | | | | | |
| AgreedPortingTime | | | | | | m/m | | | | | -/m | | | | | | | | | |
| NRNAlterationTime | | | | m/- | | | | | -/m | | | | | | | | | | | |
| UrgentAlteration | | | | m/- | | | | | -/m | | | | | | | | | | | |
| CoordinatedAction | o/o | o/o | | | | | | | | | | | | | | | | | | |
| TerminationDate | | | m/- | | | | -/m | | | | | | | | | | | | | |
| ReturnDate | | | | | | | -/m | | | | | | | | | | | | | |
| ProviderList | | | | | | | | | | | | | -/m | | -/m | | | | | |
| UpdateAction | -/m | -/m | | | | -/m | -/m | -/m | | | -/m | | | | | | | | | |
| ErrorCode | | | | | | | | | | | | | | | | | | | m/m | -/m |
| ErrorText | | | | | | | | | | | | | | | | | | | m/m | -/m |
| Remarks | o/o | o/o | o/- | o/- | | o/o | -/o | -/o | | | -/o | | o/o | | | | | | o/o | -/o |
| DateTimeFrom | | | | | | | | | | | | | | | | | | o/- | | |
| DateTimeTo | | | | | | | | | | | | | | | | | | o/- | | |
| ReportType | | | | | | | | | | | | | | | | | m/- | -/m | | |
| NumberOfRows | | | | | | | | | | | | | | | | | | -/m | | |
| Auxiliary1 | o/o | o/o | o/- | o/- | | o/o | -/o | -/o | | | -/o | | o/o | | | | | | o/o | -/o |
| Auxiliary2 | o/o | o/o | o/- | o/- | | o/o | -/o | -/o | | | -/o | | o/o | | | | | | o/o | -/o |
| Auxiliary3 | o/o | o/o | o/ | o/ | | o/o | -/o | -/o | | | -/o | | o/o | | | | | | o/o | -/o |
| Auxiliary4 | o/o | o/o | o/ | o/ | | o/o | -/o | -/o | | | -/o | | o/o | | | | | | o/o | -/o |

| Message | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|-------------------|-----|-----|----|----|---|-----|-----|-----|---|---|-----|----|-----|----|----|----|----|----|-----|-----|
| Parameter | | M | | | | | | | | | | | | | | | | | | |
| Auxiliary5 | o/o | o/o | o/ | o/ | | o/o | -/o | -/o | | | -/o | | o/o | | | | | | o/o | -/o |
| Auxiliary6 | o/o | o/o | o/ | o/ | | o/o | -/o | -/o | | | -/o | | o/o | | | | | | o/o | -/o |
| EROrderNumberFrom | | | | | | | | | | | | | | | | | | | | o/- |
| EROrderNumberTo | | | | | | | | | | | | | | | | | | | | o/- |

6 Message Parameters

Fixed text indicated in “Value(s)” in this chapter is verified for syntax, without distinguishing between the use of capital/small letters. The validation “FIXED” is the same as “fixed”.

6.1 MessageTypeID

| | |
|-----------|--|
| Use: | Identifier of message type sent. |
| Example: | MessageTypeID=1 |
| Type: | Numerical |
| Length: | Maximum 3 digits |
| Value(s): | 1 = NPRequest 2 = NPReturn 3 = NPNRNAlt 4 = NPERResp 5 = NPReqConf 6 = NPRetConf 7 = NPNRNConf 8 = NPCompl 9 = NPNRNCompl 10 = NPUpdate 11 = NPUpdCompl 12 = NPCancel 13 = NPCanConf 14 = For future use 15 = For future use 16 = NPInfReq 17 = NPERInfResp 18 = NPReject 19 = NPError |
| Remarks: | The RE sends this parameter transparently to all the messages it reroutes. |

6.2 OriginatingMessageTypeID

| | |
|-----------|---|
| Use: | Identifier used by the RE to identify the message type which led to the RE Response. This parameter is used to connect the NP ER Response or an NP Error received by the Provider to the message to which it corresponds. |
| Example: | OriginatingMessageTypeID=5 |
| Type: | Numerical |
| Length: | Maximum 3 digits |
| Value(s): | MessageTypeID valid, see 6.1 |
| Remarks: | This parameter is only used in NP ER Response and as such is always |

| | |
|--|----------------------|
| | generated by the RE. |
|--|----------------------|

6.3 MessageDateAndTime

| | |
|-----------|--|
| Use: | Information regarding the date of the creation of a message. |
| Example: | MessageDateAndTime=2001-06-07 09:50:00 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | |
| Remarks: | The RE substitutes this parameter on all the messages that are sent so that it is not possible to manipulate the date. |

6.4 EROrderNumber

| | |
|-----------|--|
| Use: | Unique order number issued by the RE to identify an order. The EROrderNumber is the same for all individual requests in a coherent request. |
| Example: | EROrderNumber=00020033001234 |
| Type: | Alphanumerical |
| Length: | Maximum 14 characters |
| Value(s): | |
| Remarks: | Only the RE can generate the EROrderNumber, which is never re-used, and will be unique globally. The Provider ID and a numerical sequence are used to construct the EROrderNumber. |

6.5 ProcessID

| | |
|-----------|--|
| Use: | Unique identifier of the process to which a message belongs. |
| Example: | ProcessID=00020033002223 |
| Type: | Alphanumerical |
| Length: | Maximum 14 characters |
| Value(s): | |
| Remarks: | Only the RE can generate the ProcessID, which is never re-used, and will be unique globally. The Provider ID and a numerical sequence are used to construct the ProcessID. |

6.6 MessageID

| | |
|-----------|--|
| Use: | Unique identifier of a message in particular in the RE. |
| Example: | MessageID=00020033000223 |
| Type: | Alphanumerical |
| Length: | Maximum 14 characters |
| Value(s): | |
| Remarks: | Only the RE can generate the MessageID, which is never re-used, and will be unique globally. The Provider ID and a numerical sequence are used to construct the MessageID. |

6.7 ParentMessageID

| | |
|-------------|--|
| Use: | Identifier of the message to which this message is the response. |
| Example: | ParentMessageID=00020033000323 |
| Type: | Alphanumerical |
| Length: | Maximum 14 characters |
| Value(s): | Remarks: Will have the value of zero for the message which starts the flow. |
| Remarks: | <p>The ParentMessageID is taken from the MessageID of the message to which the current message is the response. When a message is re-routed by the RE, the MessageID and ParentMessageID of the message that leaves the RE will be different from those of the message that entered the RE.</p> <p>For the NP Cancel, this parameter is the MessageID of the NP Request Confirmation, NP Return or NP NRN Alteration Confirmation of the action to be cancelled.</p> |
| Validation: | The ParentMessageID used as the identifier in NPCancel must belong to an NP Request Confirmation, NP Return or NP NRN Alteration Confirmation message. |

6.8 OriginatingOrderNumber

| | |
|-----------|---|
| Use: | The order number of the Provider taken from a sequence. |
| Example: | OriginatingOrderNumber=07000001010123 |
| Type: | Alphanumerical |
| Length: | Maximum 14 characters |
| Value(s): | The order number of the Provider taken from a sequence. |
| Remarks: | <p>The Recipient Provider controls the OriginatingOrderNumber exclusively, but the RE verifies the syntax. This signifies that the OriginatingOrderNumber may be re-used when a closed flow is taken up again. There cannot be two active flows started by the same Provider for the same OriginatingOrderNumber.</p> <p>Individual requests within a coherent request will have the same OriginatingOrderNumber.</p> |

6.9 TotalNumberOfRequests

| | |
|-----------|---|
| Use: | The total number of request messages belonging to a coherent request. For one simple request, the value is 1. |
| Example: | TotalNumberOfRequests=4 |
| Type: | Numerical |
| Length: | Maximum 5 digits |
| Value(s): | |
| Remarks: | This parameter is defined by the Recipient Provider in the NP Request request and passed transparently to all the other messages regarding the flow and the specific request within the coherent request. |

6.10 SequenceNumber

| | |
|-----------|---|
| Use: | The sequence number of a request message or a request message related to a coherent request. For a simple request, this value is 1. |
| Example: | SequenceNumber=3 |
| Type: | Numerical |
| Length: | Maximum 5 digits |
| Value(s): | |
| Remarks: | This parameter is defined by the Recipient Provider in the NP Request request and passed transparently to all the other messages regarding the flow and the specific request within the coherent request. |

6.11 DonorID

| | |
|-----------|--|
| Use: | Identification of the Donor Provider of the number. |
| Example: | DonorID=076 |
| Type: | Alphanumerical |
| Length: | 3 characters |
| Value(s): | Provider ID with '0' at the beginning. |
| Remarks: | The RE inserts the Provider ID of the Donor Provider based on the information in the Reference Database. |

6.12 HolderID

| | |
|-----------|--|
| Use: | Identification of the Holding Provider of the number. |
| Example: | HolderID=074 |
| Type: | Alphanumerical |
| Length: | 3 characters |
| Value(s): | Provider ID with '0' at the beginning. |
| Remarks: | The RE inserts the Provider ID of the Holding Provider based on the information in the Reference Database. |

6.13 RecipientID

| | |
|-----------|---|
| Use: | Identification of the Recipient Provider requesting porting. |
| Example: | RecipientID=075 |
| Type: | Alphanumerical |
| Length: | 3 characters |
| Value(s): | Provider ID with '0' at the beginning. |
| Remarks: | <p>This parameter identifies who is requesting porting and who will be the Holding Provider when porting is concluded. The RE inserts the Provider ID of the Recipient Provider based on the originator of the request.</p> <p>For the NP Update: First porting, RecipientID = Recipient provider ID Porting to the Donor, RecipientID = Donor provider ID Subsequent porting, RecipientID = Recipient provider ID</p> <p>For NP Return, RecipientID = Donor</p> <p>For NRN Alteration, RecipientID = Holder</p> |

6.14 ProviderID

| | |
|-----------|---|
| Use: | Identification of the specified Provider. |
| Example: | ProviderID=075 |
| Type: | Alphanumerical |
| Length: | 3 characters |
| Value(s): | Provider ID with '0' at the beginning. |
| Remarks: | This parameter is used to identify the Provider in a report, and is always filled in by the RE. |

6.15 RecipientContactName

| | |
|-----------|---|
| Use: | Contact name at the Recipient Provider. |
| Example: | ContactNameAtRecipient=Jorge |
| Type: | Alphanumerical |
| Length: | Maximum 30 characters |
| Value(s): | Any |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.16 RecipientContactTelephone

| | |
|----------|---|
| Use: | Contact telephone number at the Recipient Provider. |
| Example: | ContactTelephoneAtRecipient=0288339944 |
| Type: | Alphanumerical |

| | |
|-----------|---|
| Length: | Maximum 20 characters |
| Value(s): | Valid telephone number. |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.17 RecipientContactFax

| | |
|-----------|---|
| Use: | Contact fax number at the Recipient Provider. |
| Example: | ContactFaxAtRecipient=0288339944 |
| Type: | Alphanumerical |
| Length: | Maximum 20 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.18 RecipientContactE-mail

| | |
|-----------|---|
| Use: | Contact e-mail address at the Recipient Provider. |
| Example: | ContactE-mailAtRecipient=José@PR.com |
| Type: | Alphanumerical |
| Length: | Maximum 50 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.19 HolderContactName

| | |
|-----------|---|
| Use: | Contact name at the Holding Provider |
| Example: | ContactNameAtHolder=Jorge |
| Type: | Alphanumerical |
| Length: | Maximum 30 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Holding Provider and is not validated by the RE. |

6.20 HolderContactTelephone

| | |
|-----------|---|
| Use: | Contact telephone number at the Holding Provider. |
| Example: | ContactTelephoneAtHolder=0288339944 |
| Type: | Alphanumerical |
| Length: | Maximum 20 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Holding Provider and is not validated by the RE. |

6.21 HolderContactFax

| | |
|-----------|---|
| Use: | Contact fax number at the Holding Provider. |
| Example: | ContactFaxAtHolder=0288339944 |
| Type: | Alphanumerical |
| Length: | Maximum 20 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Holding Provider and is not validated by the RE. |

6.22 HolderContactE-mail

| | |
|-----------|---|
| Use: | Contact e-mail address at the Holding Provider. |
| Example: | ContactE-mailAtHolder=José@PR.com |
| Type: | Alphanumerical |
| Length: | Maximum 50 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Holding Provider and is not validated by the RE. |

6.23 CustomerName

| | |
|-----------|---|
| Use: | The name of the Customer. |
| Example: | CustomerName=Columbano Bordalo Pinheiro |
| Type: | Alphanumerical |
| Length: | Maximum 80 characters |
| Value(s): | Any |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.24 CustomerSIM

| | |
|-----------|---|
| Use: | The SIM-card ID of the Customer=SIM serial number |
| Example: | CustomerSIM=8935101123456789012 |
| Type: | Alphanumerical |
| Length: | 19 characters |
| Value(s): | A SIM identifier in accordance with norm ITU-T E.118. |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.25 CustomerStreet

| | |
|------|-----------------------------|
| Use: | The address of the Customer |
|------|-----------------------------|

| | |
|-----------|---|
| Example: | CustomerStreet=Avenida Oporto, 345 |
| Type: | Alphanumerical |
| Length: | Maximum 60 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.26 CustomerLocation

| | |
|-----------|---|
| Use: | The location of the Customer |
| Example: | CustomerLocation=Lisboa |
| Type: | Alphanumerical |
| Length: | Maximum 35 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.27 CustomerCodeAndLocation

| | |
|-----------|---|
| Use: | The postcode of the Customer |
| Example: | CustomerCodeAndLocation=1099-017 Lisboa |
| Type: | Alphanumerical |
| Length: | Maximum 60 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.28 CustomerDocumentIDType

| | |
|-----------|---|
| Use: | Identifier with indication of the type of document on which the Customer identification is based. |
| Example: | CustomerDocumentIDType=3 |
| Type: | Numerical |
| Length: | Maximum 2 digits |
| Value(s): | 0=Fiscal Number 1=Identity Card 2=Passport 3= Residence Permit 4= Citizen's Card |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.29 CustomerDocumentID

| | |
|------|--|
| Use: | The number of the Customer's identification document |
|------|--|

| | |
|-----------|--|
| Example: | CustomerDocumentID=234567893847 |
| Type: | Alphanumerical |
| Length: | Maximum 12 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and the format is validated by the RE. |

6.30 TypeOfNumber

| | |
|-----------|---|
| Use: | The type of number to be ported |
| Example: | TypeOfNumber=1 |
| Type: | Numerical |
| Length: | Maximum 2 digits |
| Value(s): | 0=Fixed 1=Mobile 2=Non-geographic service number 3=Roaming |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is validated by the RE. |

6.31 PABXMainTelephoneNumber

| | |
|-----------|--|
| Use: | The main telephone number in a number range. |
| Example: | PABXMainTelephoneNumber=253434219 |
| Type: | Alphanumerical |
| Length: | Maximum 20 characters |
| Value(s): | Valid telephone number |
| Remarks: | The information in this parameter is supplied by the Recipient or Holding Provider and is validated by the RE. PABXMainTelephoneNumber is mandatory for a number range. |

6.32 FirstTelephoneNumber

| | |
|-----------|--|
| Use: | The first telephone number in a number range to be ported. |
| Example: | FirstTelephoneNumber=253434219 |
| Type: | Alphanumerical |
| Length: | Maximum 20 characters |
| Value(s): | Valid telephone number |
| Remarks: | The information in this parameter is supplied by the Recipient or Holding Provider and is validated by the RE. |

6.33 LastTelephoneNumber

| | |
|----------|---|
| Use: | The last telephone number in a number range to be ported. |
| Example: | LastTelephoneNumber=253434219 |
| Type: | Alphanumerical |

| | |
|-----------|--|
| Length: | Maximum 20 characters |
| Value(s): | Valid telephone number |
| Remarks: | The information in this parameter is supplied by the Recipient or Holding Provider and is validated by the RE. For simple numbers, the LastTelephoneNumber will be the same as the FirstTelephoneNumber. |

6.34 Facilities

| | |
|-----------|---|
| Use: | |
| Example: | Facilities=1 |
| Type: | Numerical |
| Length: | Maximum 3 digits |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is not validated by the RE. |

6.35 PresentNRN

| | |
|-----------|---|
| Use: | Current information necessary to route a call to this number. |
| Example: | PresentNRN=D084101 |
| Type: | Alphanumerical |
| Length: | Maximum 7 characters |
| Value(s): | For number porting, the first digit will be the hexadecimal D, followed by three digits of the Provider ID and ending with three digits Exchange ID. It does not exist in the first porting, otherwise it is mandatory. |
| Remarks: | The information in this parameter is supplied by the Recipient or Holding Provider and is validated by the RE. The content of this parameter contains the routing information for the switch which currently supports the number or number range. |

6.36 NewNRN

| | |
|-------------|--|
| Use: | Information necessary to route a call to this number after a porting or NRN alteration. |
| Example: | NewNRN=D084101 |
| Type: | Alphanumerical |
| Length: | Maximum 7 characters |
| Value(s): | For number porting, the first digit will be the hexadecimal D, followed by three digits of the Provider ID and ending with three digits Exchange ID. It does not exist for the return or for porting to the Donor Provider, otherwise it is mandatory. |
| Remarks: | The information in this parameter is supplied by the Recipient or Holding Provider and is validated by the RE. The content of this parameter contains the routing information for the switch which will support the number or number range. |
| Validation: | The NewNRN may not be used when porting is to a Donor Provider. (Error |

| | |
|--|-----------|
| | code 103) |
|--|-----------|

6.37 ChargingInfo

| | |
|-----------|---|
| Use: | Special charging information regarding the porting. |
| Example: | ChargingInfo= |
| Type: | Alphanumerical |
| Length: | Maximum 20 characters |
| Value(s): | |
| Remarks: | For future use |

6.38 1stPortingTime

| | |
|-------------|--|
| Use: | The date and time that the Recipient Provider requests as first priority for the porting window. The first, second and third porting windows must all be different, and must be separated by two consecutive working days. |
| Example: | 1stPortingTime =2001-07-20 15:30:00 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | hh:mm:ss must have one of the values 10:30:00, 15:30:00 or 19:30:00 |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is verified if the value is valid by the RE. |
| Validation: | The date may not coincide with a weekend or public holiday. |

6.39 2ndPortingTime

| | |
|-------------|---|
| Use: | The date and time that the Recipient Provider requests as second priority for the porting window. The first, second and third porting windows must all be different, and must be separated by two consecutive working days. |
| Example: | 2ndPortingTime =2001-07-20 10:30:00 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | hh:mm:ss must have one of the values 10:30:00, 15:30:00 or 19:30:00 |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is verified if the value is valid by the RE. |
| Validation: | The date may not coincide with a weekend or public holiday. |

6.40 3rdPortingTime

| | |
|----------|--|
| Use: | The date and time that the Recipient Provider requests as third priority for the porting window. The first, second and third porting windows must all be different, and must be separated by two consecutive working days. |
| Example: | 3rdPortingTime =2001-07-19 15:30:00 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |

| | |
|-------------|--|
| Value(s): | hh:mm:ss must have one of the values 10:30:00, 15:30:00 or 19:30:00 |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is verified if the value is valid by the RE. |
| Validation: | The date may not coincide with a weekend or public holiday. |

6.41 AgreedPortingTime

| | |
|-------------|---|
| Use: | Information on the confirmed porting window during which porting will occur. |
| Example: | AgreedPortingTime=2001-07-20 15:30:00 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | hh:mm:ss must have one of the values 10:30:00, 15:30:00 or 19:30:00 |
| Remarks: | The information in this parameter is supplied by the Holding Provider and is validated by the RE. The parameter will have the porting window that the Provider confirmed to the Recipient Provider. |
| Validation: | The date may not coincide with a weekend or public holiday. |

6.42 NRNAAlterationTime

| | |
|-------------|---|
| Use: | Information on the date and time the NRN of a number will be altered. |
| Example: | NRNAAlterationTime=2001-06-12 14:00:00 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Holding Provider and is validated by the RE. |
| Validation: | The date may not coincide with a weekend or public holiday. |

6.43 UrgentAlteration

| | |
|-----------|---|
| Use: | A parameter notifying if an NRN alteration will occur immediately. |
| Example: | UrgentAlteration=1 |
| Type: | Numerical |
| Length: | 1 digit |
| Value(s): | 0=Normal 1=Urgent |
| Remarks: | UrgentAlteration may only be used for errors in NRN. The information in this parameter is supplied by the Holding Provider and its format is validated by the RE. |

6.44 CoordinatedAction

| | |
|----------|--|
| Use: | A parameter indicating if coordinated action between the Recipient Provider and the Holding Provider is necessary. |
| Example: | Coordinated action to occur in the Customer's home |

| | |
|-----------|--|
| Type: | Alphanumerical |
| Length: | Maximum 35 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Recipient Provider and is passed transparently by the RE. |

6.45 TerminationDate

| | |
|-------------|---|
| Use: | Information on the date the subscription terminated in the Holding Provider. |
| Example: | TerminationDate=2001-06-12 23:59:59?????? |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Holding Provider and its format is validated by the RE. Only the date is considered. |
| Validation: | TerminationDate may not be a date in the future. (Error code 103) |

6.46 ReturnDate

| | |
|-----------|---|
| Use: | Information on the date and time when the number will be returned to the Number Range Owner. |
| Example: | ReturnDate=2001-10-08 23:59:59 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the RE based on the termination date. The ReturnDate is TerminationDate + T18. However, the NP Return Confirmation message where this parameter is found is not distributed by the RE before ReturnDate + T5. If TerminationDate + T18 ends on a weekend or public holiday, the ReturnDate will be the next working day. |

6.47 ProviderList

| | |
|-----------|---|
| Use: | List of Providers that confirm conclusion of an action. |
| Example: | ProviderList=023,034,074,023 |
| Type: | List of alphanumerical values separated by commas |
| Length: | |
| Value(s): | May have the value of zero if no Provider has confirmed the conclusion. |
| Remarks: | This parameter is produced and issued by the RE. |

6.48 UpdateAction

| | |
|----------|--|
| Use: | Indication of the type of database update that will be carried out in relation to a porting or NRN alteration. |
| Example: | UpdateAction=1 |

| | |
|-----------|---|
| Type: | Numerical |
| Length: | 1 digit |
| Value(s): | 0=Removal 1=Creation 2=Alteration |
| Remarks: | Holding Provider = Donor -> Creation Holding Provider ≠ Donor -> Alteration Recipient Provider = Donor -> Removal This parameter is produced and issued by the RE. |

6.49 ErrorCode

| | |
|-----------|--|
| Use: | The error code returned by the RE or the rejection code returned by the Holding Provider. |
| Example: | ErrorCode=305 |
| Type: | Numerical |
| Length: | Maximum 3 digits |
| Value(s): | 100..999 |
| Remarks: | Returns information on any error that has been found. This parameter is produced and issued by the RE or by the Holding Provider. The error code in the rejection message is validated by the RE. Only valid error codes are accepted. |

6.50 ErrorText

| | |
|-----------|---|
| Use: | The error text returned by the RE or the rejection text returned by the Holding Provider. |
| Example: | ErrorText=Invalid value for parameter |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |
| Value(s): | |
| Remarks: | Returns information on any error that has been found. This parameter is produced and issued by the RE or by the Holding Provider. |

6.51 Remarks

| | |
|-----------|--|
| Use: | The remarks parameter is used for testing and tracking purposes, and to specify grounds for rejection of a request when there is no specific error code for the actual reason. This parameter is also used by the RE to return the ID of the holding provider in the case of timer T3 expiration and error code 252. |
| Example: | Remarks=This is a test message |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |
| Value(s): | Any |
| Remarks: | The information in this parameter is supplied by the Recipient or Holding Provider and is passed transparently by the RE also when the messages |

| | |
|--|---|
| | change name in the RE (e.g. NP Complete to NP Update), but they are not removed when the RE is responding e.g. <NP ER Resp> |
|--|---|

6.52 DateTimeFrom

| | |
|-----------|--|
| Use: | Date and time from when the information from a report must be obtained. |
| Example: | DateTimeFrom=2001-03-04 09:00:00 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Provider which requests information from the RE. The RE validates the format of this parameter. |

6.53 DateTimeTo

| | |
|-----------|--|
| Use: | Date and time up to when the information from a report must be obtained. |
| Example: | DateTimeTo=2001-08-05 12:00:00 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Provider which requests information from the RE. The RE validates the format of this parameter. |

6.54 ReportType

| | |
|-----------|--|
| Use: | Type of report requested from the RE. |
| Example: | ReportType=5 |
| Type: | Numerical |
| Length: | Maximum 3 digits |
| Value(s): | 0= Complete Reference Database 1= Information on NRNS for specific numbers 2= History of alterations for numbers or number ranges 3= Requests made 4= Requests cancelled 5= Requests rejected 6= Requests pending confirmation 7= Requests pending execution 8= Completed requests 9= Status of Provider associated to flow 10= Portability information report |
| Remarks: | The information in this parameter is supplied by the Provider which requested information from the RE. The RE validates the format of the parameter. |

6.55 Heading

| | |
|-----------|---|
| Use: | Report heading. To identify columns of a report. |
| Example: | Heading=FirstTelephoneNumber, LastTelephoneNumber,..... |
| Type: | List separated by commas |
| Length: | |
| Value(s): | Parameter names separated by commas. |
| Remarks: | This parameter is produced and issued by the RE. |

6.56 NumberOfRows

| | |
|-----------|---|
| Use: | Indicates the number of rows in a report when sent by the file interface. |
| Example: | NumberOfRows=4 |
| Type: | Numerical |
| Length: | Maximum 10 digits |
| Value(s): | |
| Remarks: | This parameter is produced and issued by the RE. |

6.57 Row1...n

| | |
|-----------|---|
| Use: | Used to identify rows within a report sent by the file interface. |
| Example: | Row3=2345,44444,555,333 |
| Type: | List separated by commas |
| Length: | |
| Value(s): | |
| Remarks: | This parameter is produced and issued by the RE. |

6.58 DateTimeField

| | |
|-----------|---|
| Use: | A generic field indicating a period in time. The meaning depends on the context. Used e.g. in a report to indicate when an action will occur. |
| Example: | DateTimeField=2001-07-25 12:23:30 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Value(s): | |
| Remarks: | This parameter is produced and issued by the RE. |

6.59 Auxiliary1 (Local Loop Number)

| | |
|-----------|---|
| Use: | The information contained in this parameter is supplied by the holding provider when it intends to return the local loop to the ORALL operator. |
| Example: | Auxiliary1=1612345678 |
| Type: | Alphanumerical |
| Length: | Maximum 10 characters |
| Value(s): | Number of address of local loop |
| Remarks: | The content of this parameter is not validated by the RE. |

6.60 Auxiliary2 (Loop HDF Block)

| | |
|-----------|---|
| Use: | The information contained in this parameter is supplied by the holding provider when it intends to return the local loop to the ORALL operator. |
| Example: | Auxiliary2=10 |
| Type: | Alphanumerical |
| Length: | Maximum 2 characters |
| Value(s): | Number identifying the HDF block of the local loop. |
| Remarks: | The content of this parameter is not validated by the RE. |

6.61 Auxiliary3 (Loop HDF Termination)

| | |
|-----------|---|
| Use: | The information contained in this parameter is supplied by the holding provider when it intends to return the local loop to the ORALL operator. |
| Example: | Auxiliary3=100 |
| Type: | Alphanumerical |
| Length: | Maximum 3 characters |
| Value(s): | Number identifying the HDF termination of the local loop. |
| Remarks: | The content of this parameter is not validated by the RE. |

6.62 Auxiliary4

| | |
|-----------|------------------------|
| Use: | For future use |
| Example: | Auxiliary4= |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |
| Value(s): | |
| Remarks: | |

6.63 Auxiliary5

| | |
|-----------|------------------------|
| Use: | For future use |
| Example: | Auxiliary5= |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |
| Value(s): | |
| Remarks: | |

6.64 Auxiliary6

| | |
|----------|------------------------|
| Use: | For future use |
| Example: | Auxiliary6= |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |

| | |
|-----------|--|
| Value(s): | |
| Remarks: | |

6.65 SessionID

| | |
|-----------|---|
| Use: | Unique session reference key. Only for use with the Stored Procedure Call interface to the RE. The application of file transfer passes this parameter automatically to the SPC interface. |
| Example: | SessionID=7000000901 |
| Type: | Numerical |
| Length: | Maximum 10 digits |
| Value(s): | |
| Remarks: | This parameter is produced and issued by the RE, and will be used by the Provider during the entire session. |

6.66 UserID

| | |
|-----------|---|
| Use: | Unique user identification key. Used in conjunction with the login to the RE. |
| Example: | UserID=7000101002 |
| Type: | Numerical |
| Length: | Maximum 10 digits |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Provider which requests access from the RE. The RE validates the format and and the value of this parameter. |

6.67 UserName

| | |
|-----------|---|
| Use: | Submitted by the user via the user login form. Used in conjunction with the login to the RE. |
| Example: | UserName=ER Administrator |
| Type: | Alphanumerical |
| Length: | Maximum 30 characters |
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Provider which requests access from the RE. The RE validates the format and and the value of this parameter. |

6.68 Password

| | |
|----------|--|
| Use: | Submitted by the user via the user login form. Used in conjunction with the login to the RE. |
| Example: | Password=***** |
| Type: | Alphanumerical (encrypted by the browser / server communications protocol) |
| Length: | Maximum 30 characters |

| | |
|-----------|---|
| Value(s): | |
| Remarks: | The information in this parameter is supplied by the Provider which requests access from the RE. The RE validates the format and the value of this parameter. |

6.69 UserDescription

| | |
|-----------|---|
| Use: | Full name of user and description. Returned by the RE in response to a login attempt. Used in conjunction with the login to the RE. |
| Example: | UserDescription=ER Administrator |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |
| Value(s): | |
| Remarks: | This parameter is produced and issued by the RE. |

6.70 LastSuccess

| | |
|-----------|--|
| Use: | Descriptive text of last successful login. Used in conjunction with the login to the RE. |
| Example: | Lastsuccess=Last successful login 2001-12-23 12:00:00 |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |
| Value(s): | |
| Remarks: | This parameter is produced and issued by the RE. |

6.71 LastFailed

| | |
|-----------|--|
| Use: | Descriptive text of last failed login. Used in conjunction with the login to the RE. |
| Example: | LastFailed=Last failed login 2001-12-23 12:00:00 |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |
| Value(s): | |
| Remarks: | This parameter is produced and issued by the RE. |

6.72 Status

| | |
|-----------|--|
| Use: | Status of messages to be obtained from the RE. |
| Example: | Status=0 |
| Type: | Numerical |
| Length: | 1 digit |
| Value(s): | 0 = received; The list contains all the messages not handled in the RE. 1 = transferred; The list contains transferred messages. |
| Remarks: | The information in this parameter is supplied by the Provider which requests access from the RE. The RE validates the format and the value of this |

| | |
|--|---|
| | parameter. If it is not filled in, all the messages to be handled will be selected (0). See section Error! Reference source not found. |
|--|---|

6.73 ERMessage

| | |
|-----------|--|
| Use: | Possible complete text message. Only to be used in conjunction with the Stored Procedure Call interface. The file transfer application sends this parameter automatically. |
| Example: | Message=Unauthorised user |
| Type: | Alphanumerical |
| Length: | Maximum 255 characters |
| Value(s): | |
| Remarks: | This parameter is produced and issued by the RE. |

6.74 ReturnCode

| | |
|-----------|---|
| Use: | In accordance with the table of response codes in section 7. |
| Example: | ReturnCode=217 |
| Type: | Numerical |
| Length: | Maximum 3 digits |
| Value(s): | 100-999 |
| Remarks: | This parameter is produced and issued by the RE. Refers to the error codes table in section Error! Reference source not found. |

6.75 PortationStatus

| | |
|-----------|--|
| Use: | To be used in conjunction with NRN information. |
| Example: | PortationStatus=2 |
| Type: | Numerical |
| Length: | 1 digit |
| Value(s): | 1 = Terminated 2 = Ported |
| Remarks: | This parameter is produced and issued by the RE. |

6.76 EROrderNumberFrom

| | |
|-----------|--|
| Use: | To be used in conjunction with RE Information Request as selection criteria for a range of EROrderNumbers. |
| Example: | EROrderNumberFrom=00020033001234 |
| Type: | Alphanumerical |
| Length: | 14 characters |
| Value(s): | |
| Remarks: | This parameter is filled in by the Provider. |

6.77 EROrderNumberTo

| | |
|-----------|--|
| Use: | To be used in conjunction with RE Information Request as selection criteria for a range of EROrderNumbers. |
| Example: | EROrderNumberTo=00020033001280 |
| Type: | Alphanumerical |
| Length: | 14 characters |
| Value(s): | |
| Remarks: | This parameter is filled in by the Provider. |

7 Error handling

This section addresses the handling of errors, specifying the error codes and describing the verification of errors.

The RE generates errors to the Providers (either by an NP Error message or as a result of the invoking of a Stored Procedure) in two different circumstances:

As a direct response to a message from a Provider – in this situation, the message is set aside by the RE, and there is therefore no change in the status of the flow in the RE (that is, it appears as if the message never existed). The Provider must correct the message and send it again, unless this does not apply (e.g., NP Cancel issued too late). The error code is returned as a result of the invoking of the Stored Procedure or as a parameter in the NP Error message if the files interface is used.

As notification of an error or warning due to the expiration of an internal timer in the RE. The associated flow will remain active or will terminate, depending on the error code. The error code is included as a parameter in the NP Error message.

7.1 Error codes

The error codes are used in NP Error messages or as a result of the invoking of a Stored Procedure (the RE defines the error code). Error codes are also used in NP Reject messages (the Holding Provider defines the error code).

The following table describes how the status of the flows is affected in the RE when an error code is sent to the Provider.

| Error code received by the Provider | How the flow is affected in the RE |
|-------------------------------------|--|
| (error associated with T14 expired) | Associated flow continues |
| 238 | Associated flow is closed |
| 3xx (Rejection) | Associated flow is closed |
| All other error codes | No flow is affected and no flow is started. Message with error is set aside by the RE. |

| Code | Description | RE | Fixed Provider | Mobile Provider |
|------|-------------------------------------|----|----------------|-----------------|
| | Syntax and format errors | | | |
| 100 | | | | |
| 101 | Parameter is missing | ✓ | | |
| 102 | Parameter is present more than once | ✓ | | |
| 103 | Parameter content is illegal | ✓ | | |
| 104 | Parameter content is missing | ✓ | | |
| 105 | Parameter content not unique | ✓ | | |
| 106 | Invalid telephone number | ✓ | | |

| | | | | |
|-----|--|---|--|--|
| 107 | Parameter content is too long | ✓ | | |
| 108 | Illegal index | ✓ | | |
| 109 | Unknown parameter | ✓ | | |
| 110 | File format error | ✓ | | |
| 111 | Section heading is missing | ✓ | | |
| 112 | Reserved for future use | | | |
| 113 | Reserved for future use | | | |
| 114 | Reserved for future use | | | |
| 115 | Reserved for future use | | | |
| 116 | Reserved for future use | | | |
| | Flow and Process errors | | | |
| 200 | The telephone number is present in another flow | ✓ | | |
| 201 | MessageCount value does not match number of messages | ✓ | | |
| 202 | NP Update Complete received before the agreed porting window | ✓ | | |
| 203 | Reserved for future use | ✓ | | |
| 204 | EROrderNumber is in use in another flow | ✓ | | |
| 205 | Provider ID does not exist | ✓ | | |
| 206 | Reserved for future use | | | |
| 207 | Duplicate confirmation received | ✓ | | |
| 208 | EROrderNumber does not exist | ✓ | | |
| 209 | EROrderNumber belongs to a terminated flow | ✓ | | |
| 210 | The telephone number is not part of the flow corresponding to the EROrderNumber | ✓ | | |
| 211 | EROrderNumber and ProcessID do not match | ✓ | | |
| 212 | Reserved for future use | | | |
| 213 | OriginatingOrderNumber is in use in another active flow of the same Provider. | ✓ | | |
| 214 | The ProcessID does not match the ProcessID in the preceding message from ER | ✓ | | |
| 215 | The last telephone number is less than the first telephone number | ✓ | | |
| 216 | Holder or DonorID and telephone number do not match | ✓ | | |
| 217 | HolderID and telephone number do not match | ✓ | | |
| 218 | The date and time is before current date and time | ✓ | | |
| 219 | AgreedPortingTime does not match any requested porting time. | ✓ | | |
| 220 | Numbers or number ranges belonging to different Providers requested within the same coherent request | ✓ | | |
| 221 | Porting request outside valid porting request. | ✓ | | |
| 222 | Number series must match number series in preceding message (e.g. NP Request) | ✓ | | |
| 223 | NRN is not known | ✓ | | |
| 224 | Telephone number not assigned to the donor | ✓ | | |
| 225 | Reserved for future use | | | |
| 226 | NP Complete does not match an NP Request – no NP Request found | ✓ | | |
| 227 | NP Complete does not match an NP Request Confirmation – no NP Confirmation found | ✓ | | |
| 228 | Duplicate NP Complete received | ✓ | | |
| 229 | Reserved for future use | | | |
| 230 | The parameter shall not be present | ✓ | | |
| 231 | Porting requested earlier than T4 working days ahead | ✓ | | |
| 232 | Porting requested earlier than T4M working days ahead | ✓ | | |
| 233 | Porting requested later than T5 working days ahead | ✓ | | |
| 234 | NP Request Confirmation or NP Reject not returned | ✓ | | |

| | | | | |
|-----|--|---|---|---|
| | within T3 (to the holding provider) | | | |
| 235 | Cancellation requested later than T9 working days prior to porting | ✓ | | |
| 236 | NRN Alteration Cancel requested later than T13 before the NRNAlterationTime | ✓ | | |
| 237 | The Provider is not authorized (e.g. to request information) | ✓ | | |
| 238 | Coherent request not received in full within T2 => invalidated | ✓ | ✓ | |
| 239 | Reserved for future use | | | |
| 240 | Invalid message type | ✓ | | |
| 241 | Error in message flow order | ✓ | | |
| 242 | NRN Alteration requested later than T11 working days ahead | ✓ | | |
| 243 | NRN Alteration requested earlier than T12 working days ahead | ✓ | | |
| 244 | NRN Alteration requested outside valid porting window | ✓ | | |
| 245 | Non-existing report type | ✓ | | |
| 246 | SequenceNumber is higher than TotalNumberOfRequests | ✓ | | |
| 247 | Invalid ParentMessageID | ✓ | | |
| 248 | Invalid SequenceNumber | ✓ | | |
| 249 | Invalid ErrorCode | ✓ | | |
| 250 | Telephone number not assigned to any Provider | ✓ | | |
| 251 | Incorrect use of porting windows. ²³ | ✓ | | |
| 252 | NP Request Confirmation or NP Reject not returned within T3 ²⁴ | ✓ | | |
| 253 | Reserved for future use | | | |
| 254 | PABXMainTelephoneNumber is mandatory for a range of numbers. | ✓ | | |
| 255 | Reserved for future use | | | |
| 256 | Reserved for future use | | | |
| 257 | Reserved for future use | | | |
| 258 | Reserved for future use | | | |
| 259 | Reserved for future use | | | |
| | Reasons for rejection | | | |
| 300 | Contract ownership does not match (not applicable to non-identified prepaid subscriptions) | | ✓ | ✓ |
| 301 | Reserved for future use | | | |
| 302 | Number inactive at the Holding Provider ²⁵ | | ✓ | ✓ |
| 303 | Reserved for future use | | | |
| 304 | Change of telephone number is pending | | ✓ | ✓ |
| 305 | National Defence considerations | | ✓ | ✓ |
| 306 | SIM does not exist ²⁶ | | | ✓ |
| 307 | SIM does not match the MSISDN ³ | | | ✓ |
| 308 | SIM is lost/missing ³ | | | ✓ |
| 309 | Number in the storage period | ✓ | ✓ | ✓ |
| 310 | Number is not portable (DP is obliged to explain in the Remarks parameter). ^{27 28} | | ✓ | ✓ |
| 311 | Number related to a Payphone | | ✓ | ✓ |
| 312 | Number related to a temporary access | | ✓ | ✓ |

²³ Not on two working days, not separated by two working days, or two or more windows are the same.

²⁴ Notification to the Recipient Provider, not registered as error.

²⁵ Excluding the quarantine period

²⁶ Only LMS

²⁷ The Holding Provider must explicitly indicate a reason in the Remarks field

²⁸ Payphone numbers, temporary access numbers, and others to be defined

| | | | | |
|-----|---|---|---|---|
| 313 | Identification document does not match (not applicable to non-identified prepaid subscriptions) | | ✓ | ✓ |
| 314 | Reserved for future use | | | |
| 315 | Capacity of the options indicated in the request is exceeded (to be eliminated on 1 January 2010) | | ✓ | ✓ |
| | Stored procedure interface errors | | | |
| 400 | Invalid user name | ✓ | | |
| 401 | Invalid password | ✓ | | |
| 402 | User account locked due to intruder attempt | ✓ | | |
| 403 | Choose another password. You have used it previously. | ✓ | | |
| 404 | New password must be written identical twice | ✓ | | |
| 405 | Reserved for future use | ✓ | | |
| 406 | Session ID does not exist | ✓ | | |
| 407 | User session is terminated | ✓ | | |
| 408 | Message sender identity does not match user identity | ✓ | | |
| 409 | Message ID does not exist | ✓ | | |
| 410 | Wrong message type | ✓ | | |
| 411 | Invalid Provider ID | ✓ | | |
| 416 | User session expired. Log in once more. | ✓ | | |
| 441 | No authorization. | ✓ | | |
| 442 | Logout accepted. | ✓ | | |
| 443 | The user is already logged out. | ✓ | | |
| | Processes and Flows Errors (extended) | | | |
| 412 | Parent Message ID does not exist | ✓ | | |
| 413 | EROrderNumber, ProcessID and ParentMessageID do not match | ✓ | | |
| 414 | Reserved for future use | | | |
| 415 | Reserved for future use | | | |
| 417 | Message is already sent | ✓ | | |
| 418 | Invalid ParentMessageID | ✓ | | |
| 419 | Invalid ProcessID | ✓ | | |
| 420 | Reserved for future use | | | |
| 421 | Invalid date/time format. Must be in the format: YYYY-MM-DD hh:mm:ss | ✓ | | |
| 422 | Error in date. Invalid year %1! | ✓ | | |
| 423 | Error in date. Invalid month %1! | ✓ | | |
| 424 | Error in date. Invalid day %1! | ✓ | | |
| 425 | Error in time. Invalid hour %1! | ✓ | | |
| 426 | Error in time. Invalid minutes %1! | ✓ | | |
| 427 | Error in time. Invalid seconds %1! | ✓ | | |
| 428 | SequenceNumber does not match the SequenceNumber of parent message | ✓ | | |
| 429 | EROrderNumber does not match EROrderNumber of parent message | ✓ | | |
| 430 | Customer information is mandatory for fixed numbers | ✓ | | |
| 431 | CoordinatedAction is mandatory for fixed numbers | ✓ | | |
| 432 | Reserved for future use | ✓ | | |
| 433 | Invalid total number of requests | ✓ | | |
| 434 | Parameter %1! Format is illegal | ✓ | | |
| 435 | Logged in user is not holder of telephone number %1! | ✓ | | |
| 436 | Logged in user is not recipient provider in the request | ✓ | | |
| 437 | NP_Return Cancel must be sent before time of return | ✓ | | |
| 438 | Given time is outside the system calendar. | ✓ | | |
| 439 | Porting windows must be equal for all messages in a coherent request | ✓ | | |
| 440 | NP Cancel Confirmation must be sent within T6 from NP Cancel | ✓ | | |

| | | | | |
|-----|---|---|--|--|
| 444 | EROrderNumber does not match preceding message | ✓ | | |
| 445 | The telephone number is not ported | ✓ | | |
| 446 | NP Complete received before agreed porting window | ✓ | | |
| 447 | Duplicate NP Complete received | ✓ | | |
| 448 | Telephone number already belongs to recipient provider | ✓ | | |
| 449 | Reserved for future use | | | |
| 450 | LastTelephonenumber is within another number series in the coherent request. | ✓ | | |
| 451 | FirstTelephonenumber is within another number series in the coherent request. | ✓ | | |
| 452 | The number block must match the block in quarantine | ✓ | | |
| 453 | Reserved for future use | ✓ | | |
| 454 | NRN Alteration can not be sent for numbers that are in the quarantine period. | ✓ | | |
| 455 | NewNRN must belong to the validated Provider | ✓ | | |
| 500 | The number series must have only one Holder | ✓ | | |
| 501 | All the numbers in a number series must have the same presentNRN | ✓ | | |
| 600 | Conflict between numbers series %1! | ✓ | | |
| 900 | Internal error %1! | ✓ | | |
| 999 | Telephone number not assigned to any provider | ✓ | | |

7.2 Error verification

7.2.1 File format error

Errors detected in the format of files.

7.2.2 Syntax errors

Errors detected when the messages or parameters do not fulfil the specifications.

7.2.3 Semantic errors

Errors detected when the relationship between the messages and flows or between parameters in the same message are corrupted.

7.2.4 Errors found after database search

Errors detected after a message and its parameters are verified in relation to the message flow table and database of number ranges in the RE.

7.2.5 Handling of errors in the ER

Syntax error: NP Error sent to the Provider that sent the message.

Semantics error: NP Error sent to the Provider that sent the message.

Error found after database search: NP Error sent to the Provider that sent the message.

7.2.6 Handling of errors in the Provider

Syntax error: The Provider shall immediately inform the RE by telephone or e-mail that a syntax error has occurred.

Semantics error: The Provider shall immediately inform the RE by telephone or e-mail that a semantics error has occurred.

Error found after database search: If the error is the result of incomplete verification at the RE, the Provider shall immediately inform the RE by telephone or e-mail that a data error has occurred.

7.2.7 Syntax verification

After receiving a message, the RE verifies all the message parameters in search of missing mandatory parameters and parameters which are not permitted in the message in accordance with section 5, format of parameters, and in accordance with section 6, and applies the error code mentioned in section 7.1 on “Errors of format and syntax”, 100 onwards.

If a mandatory parameter is missing, an NP Error with the cause of error 101 will be returned to the sender of the message. Parameters which should not be present in the message (neither optional nor mandatory) will lead to an NP Error with the error code 230 and are returned to the sender of the message.

7.2.8 Semantic verification

When a message passes syntax verification, the RE then carries out semantic verification.

7.2.8.1 Semantic verification in messages

The message must be the first valid message or the next in a flow. Otherwise, an NP Error with the error code 241 is returned to the sender of the message.

Semantic verification carried out in the messages is as follows:



| | NP Request | NP Return | NP NRN Alteration | NP ER Response | NP Request Confirmation | NP Return Confirmation | NP NRN Alteration Conf. | NP Complete | NP NRN Alteration Complete | NP Update | NP Update Complete | NP Cancel | NP Cancel Confirmation | NP Portability Information | NP Portability Information Conf. | NP Information Request | NP ER Information Response | NP Reject | NP Error |
|---|------------|-----------|-------------------|----------------|-------------------------|------------------------|-------------------------|-------------|----------------------------|-----------|--------------------|-----------|------------------------|----------------------------|----------------------------------|------------------------|----------------------------|-----------|----------|
| NP Update Complete received before agreed porting window | | | | | | | | | | | 202 | | | | | | | | |
| NP Update Complete received after agreed porting window | | | | | | | | | | | 203 | | | | | | | | |
| Duplicate NP Confirmation received | | | | | 207 | 207 | 207 | | | | | | | | | | | | |
| NP Complete does not match NP Request - NP Request not found | | | | | | | | 226 | 226 | | | | | | | | | | |
| NP Complete does not match NP Request Confirmation - NP Confirmation not found | | | | | | | | 227 | 227 | | | | | | | | | | |
| Duplicate NP Complete received | | | | | | | | 228 | 228 | | | | | | | | | | |
| NP Request Confirmation not sent in 0 | | | | | 234 | | | | | | | | | | | | | | |
| Request Cancellation requested after 0 working days before porting | | | | | | | | | | | | 235 | | | | | | | |
| NRN Alteration Cancel requested T13 before NRNAlterationTime | | | | | | | | | | | | 236 | | | | | | | |
| Provider is not authorized (e.g. to request information) | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 | 237 |
| Coherent request not received in full within T2 => invalidated | 238 | | | | | | | | | | | | | | | | | | |
| Error in message flow order | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 | 241 |
| Message already sent | | | | | | | | | | | | 417 | | | | | | | |
| NP Return Cancel must be sent before the return date | | | | | | | | | | | | 437 | | | | | | | |
| NP Cancel Confirmation must be sent in T6 counting from NP Cancel | | | | | | | | | | | | | 440 | | | | | | |
| NP Complete received before agreed porting | | | | | | | | 446 | | | | | | | | | | | |
| Duplicate NP Complete received | | | | | | | | 447 | | | | | | | | | | | |
| NP NRN Alteration may not be sent for numbers that are in the quarantine period | | | 454 | | | | | | | | | | | | | | | | |



7.2.8.2 Semantic verification in parameters

In a message, the relationship between the parameters and the data is verified in relation to the consistency in accordance with the following tables:

| NPRequest | Possible error codes |
|---------------------------|---|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrderNumber | 444 (for the second and subsequent requests of a coherent request) |
| ProcessID | 419 (for the second and subsequent requests of a coherent request) |
| MessageID | n/a |
| ParentMessageID | n/a |
| OriginatingOrderNumber | 213 |
| TotalNumberOfRequests | 246, 433 |
| SequenceNumber | 246 |
| DonorID | n/a |
| HolderID | n/a |
| RecipientID | 436 |
| RecipientContactName | |
| RecipientContactTelephone | |
| RecipientContactFax | |
| RecipientContactE-mail | |
| CustomerName | 430 |
| CustomerSIM | |
| CustomerStreet | 430 |
| CustomerLocation | 430 |
| CustomerCodeAndLocation | 430 |
| CustomerDocumentIDType | 430 |
| CustomerDocumentID | 430 |
| TypeOfNumber | |
| PABXMainTelephoneNumber | 200, 216, 224, 250, 448, 452, 500, 999 |
| FirstTelephoneNumber | 200, 216, 220, 224, 250, 448, 451, 452, 500, 600, 999 |
| LastTelephoneNumber | 200, 215, 216, 220, 224, 250, 448, 450, 452, 500, 600, 999 |
| Facilities | |
| PresentNRN | n/a |
| NewNRN | 223, 455 |
| ChargingInfo | n/a |
| 1stPortingTime | 218, 221, 231, 232, 233, 251, 421, 422, 423, 424, 425, 426, 427, 438, 439 |
| 2ndPortingTime | 218, 221, 231, 232, 233, 251, 421, 422, 423, 424, 425, 426, 427, 438, 439 |
| 3rdPortingTime | 218, 221, 231, 232, 233, 251, 421, 422, 423, 424, 425, 426, 427, 438, 439 |
| CoordinatedAction | 431 |
| UpdateAction | n/a |
| Remarks | |

| NPRReturn | Possible error codes |
|-------------------------|---|
| MessageTypeID | |
| MessageDateAndTime | 421, 422, 423, 424, 425, 426, 427 |
| OriginatingOrderNumber | 213 |
| TypeOfNumber | |
| PABXMainTelephoneNumber | 200, 216, 224, 250, 435, 445 |
| FirstTelephoneNumber | 200, 216, 224, 250, 435, 445 |
| LastTelephoneNumber | 200, 215, 216, 224, 250, 435, 445 |
| TerminationDate | 103 é usado se a data é uma data no futuro, 421, 422, 423, 424, 425, 426, 427 |
| Remarks | |

| NPNRNAIt | Possible error codes |
|-------------------------|---|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| OriginatingOrderNumber | 213 |
| TypeOfNumber | |
| PABXMainTelephoneNumber | 200, 216, 224, 250, 435, 445 |
| FirstTelephoneNumber | 200, 216, 224, 250, 435, 445 |
| LastTelephoneNumber | 200, 215, 216, 224, 250, 435, 445 |
| NewNRN | 455 |
| ChargingInfo | |
| NRNAlterationTime | 218, 221, 242, 243, 244, 421, 422, 423, 424, 425, 426, 427, 438 |
| UrgentAlteration | |
| Remarks | |

| NPReqConf | Possible error codes |
|---------------------------|--|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrderNumber | 208, 209, 211, 413, 429, 444 |
| ProcessID | 419 |
| MessageID | n/a |
| ParentMessageID | 247 |
| TotalNumberOfRequests | 246, 433 |
| SequenceNumber | 246, 428 |
| DonorID | n/a |
| HolderID | n/a |
| RecipientID | n/a |
| RecipientContactName | n/a |
| RecipientContactTelephone | n/a |
| RecipientContactFax | n/a |
| RecipientContactE-mail | n/a |
| HolderContactName | |
| HolderContactTelephone | |
| HolderContactFax | |
| HolderContactE-mail | |
| TypeOfNumber | n/a |
| PABXMainTelephoneNumber | n/a |
| FirstTelephoneNumber | n/a |

| NPReqConf | Possible error codes |
|---------------------|---|
| LastTelephoneNumber | n/a |
| PresentNRN | n/a |
| NewNRN | n/a |
| ChargingInfo | n/a |
| AgreedPortingTime | 218, 219, 421, 422, 423, 424, 425, 426, 427 |
| UpdateAction | n/a |
| Remarks | |

| NPCmpl | Possible error codes |
|--------------------|--|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrderNumber | 208, 209, 429, 444 |
| ParentMessageID | 247 |
| SequenceNumber | 248, 428 |
| RecipientID | 205 |

| NPNRNCompl | Possible error codes |
|--------------------|--|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrderNumber | 208, 209 |
| ParentMessageID | 247 |
| HolderID | 205 |

| NPUpdCompl | Possible error codes |
|--------------------|--|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrderNumber | 208, 209, 211, 413, 444 |
| ProcessID | 211, 214, 413 |
| MessageID | n/a |
| ParentMessageID | 247, 413 |
| SequenceNumber | 248, 428 |
| ProviderList | n/a |

| NPCancel | Possible error codes |
|-------------------------|--|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrderNumber | 208, 209 |
| ProcessID | n/a |
| MessageID | n/a |
| ParentMessageID | 247 |
| SequenceNumber | 248, 428 |
| TypeOfNumber | n/a |
| PABXMainTelephoneNumber | n/a |
| FirstTelephoneNumber | n/a |
| LastTelephoneNumber | n/a |
| PresentNRN | n/a |
| NewNRN | n/a |

| NPCancel | Possible error codes |
|-----------------|-----------------------------|
| ChargingInfo | n/a |
| Remarks | |

| NPCanConf | Possible error codes |
|--------------------|--|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrderNumber | 208, 209, 211, 413, 444 |
| ProcessID | 211, 214, 413 |
| MessageID | n/a |
| ParentMessageID | 247, 413 |
| SequenceNumber | 248, 413 |
| ProviderList | n/a |

| NPPortInf | Possible error codes |
|----------------------|--|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrdernumberFrom | 208 |
| EROrdernumberTo | 208 |
| DonorID | 205, 216 |
| HolderID | 205, 216 |
| TypeOfNumber | |
| FirstTelephoneNumber | 216 |
| LastTelephoneNumber | 216 |
| PresentNRN | |
| DateTimeFrom | 421, 422, 423, 424, 425, 426, 427 |
| DateTimeTo | 421, 422, 423, 424, 425, 426, 427 |
| ReportType | |

| NPReject | Possible error codes |
|-------------------------|--|
| MessageTypeID | |
| MessageDateAndTime | 218, 421, 422, 423, 424, 425, 426, 427 |
| EROrderNumber | 208, 209, 211, 413 |
| ProcessID | 211, 214, 413 |
| MessageID | n/a |
| ParentMessageID | 247, 413 |
| TotalnumberOfRequests | 246, 433 |
| SequenceNumber | 246, 428 |
| DonorID | n/a |
| HolderID | n/a |
| RecipientID | n/a |
| TypeOfNumber | |
| PABXMainTelephoneNumber | 210, 224, 250, 999 |
| FirstTelephoneNumber | 210, 224, 250, 600, 999 |
| LastTelephoneNumber | 210, 224, 250, 600, 999 |
| PresentNRN | |
| NewNRN | 223 |
| ChargingInfo | |
| ErrorCode | 249 |

| NPreject | Possible error codes |
|-----------------|-----------------------------|
| ErrorText | |
| Remarks | |

8 Interface Specification

8.1 Introduction

This section describes the interconnection interfaces between the Providers and the RE. Both the physical interface and the logic interface are described below.

8.2 Physical interface with the RE

Data communication between the Data Centre and the Providers / ICP-ANACOM is supplied by a Cisco 2650 router, with support to IPSEC and 3DES encryption. The router is configured with two synchronous interfaces, with speeds up to 2 Mbps, supplying Frame-Relay access to the Providers, if the broadband requirements are modified (around 64kbps). The router may be updated with additional interfaces.

To provide complete hardware redundancy a pair of routers was provided to support the links with the Providers / ICP-ANACOM. The main Cisco 2650 router, as described below, supports the Frame-Relay links with the Providers / ICP-ANACOM. The second router, in the event of failure of the main router or the link, will activate backup links via a Primary Rate ISDN (PRI) circuit. The bandwidth of the backup link may be from a minimum of 64Kbps to 128Kbps or more, using Multilink PPP, as necessary.

To provide greater flexibility, the second router is also a Cisco 2650, and both routers have exactly the same configuration. In this case, with the appropriate configuration, the second router can easily act as a substitute when necessary, by simply connecting the synchronous port, without compromising the ISDN backup service. In this way, the shortest time of lack of availability may be guaranteed in any type of intervention.

8.2.1 Providers / ICP-ANACOM – Data centre, main and secondary router

| Ref. | Description | Qty |
|----------------|--|--------|
| CISCO2650 | High Performance 10/100 Modular Router w/ Cisco IOS IP s/w | 1 |
| CAB-ACE | Power Cord Europe | 1 |
| S26CK2-12105T | Cisco 2600 Series IOS IP PLUS IPSEC 3DES | 1 |
| MEM2650-32U48D | 32 TO 48MB DRAM Factory Upgrade for the Cisco 265x | only 1 |
| MEM2600-8U16FS | 8 to 16 MB Flash Factory Upgrade for the Cisco 2600 Series | 1 |
| NM-1CE1U | 1-Port Channelized E1/ISDN-PRI Unbalanced Network Module | 1 |
| VWIC-1MFT-E1 | 1-Port RJ-48 Multiflex Trunk - E1 | 1 |
| AIM-VPN/BP | VPN AIM encryption accelerator for the 2600 | 1 |
| CAB-E1-BNC | E1 Cable BNC 75ohm/Unbal 5m | 1 |

8.2.2 Link to Disaster Recovery Centre

As it is unlikely that the Disaster Recovery Centre will have to function as the active data centre, it is reasonable to supply non-permanent link circuits, with one important exception: a link between the two data centres which will allow the databases to be synchronised, and a link to the Operation and Management Centre.

Again, for the above reason, this equipment which receives the links does not require any special type of redundancy. Thus, the data link between the data centre and the Providers / ICP-ANACOM is supplied by a Cisco 2650 router, with support to IPSEC and 3DES encryption, similar to the 2650 in the data centre, but with only one ISDN Primary Rate ISDN (PRI) circuit. A Cisco 2610 router with a synchronous interface and two BRI interfaces closes the circuits of the main data centre (Frame-Relay circuit of 128Kbps) and of the Management

Centre, with two BRI interfaces. For backup these circuits provide all the connectivity necessary.

Again, to provide maximum flexibility, both the routers have exactly the same configuration.

| Ref. | Description | Qty |
|----------------|--|--------|
| CISCO2650 | High Performance 10/100 Modular Router w/ Cisco IOS IP s/w | 1 |
| CAB-ACE | Power Cord Europe | 1 |
| S26CK2-12105T | Cisco 2600 Series IOS IP PLUS IPSEC 3DES | 1 |
| MEM2650-32U48D | 32 TO 48MB DRAM Factory Upgrade for the Cisco 265x | only 1 |
| MEM2600-8U16FS | 8 to 16 MB Flash Factory Upgrade for the Cisco 2600 Series | 1 |
| NM-1CE1U | 1-Port Channelized E1/ISDN-PRI Unbalanced Network Module | 1 |
| AIM-VPN/BP | VPN AIM encryption accelerator for the 2600 | 1 |
| CAB-E1-BNC | E1 Cable BNC 75ohm/Unbal 5m | 1 |

8.2.3 Location of frame relay link

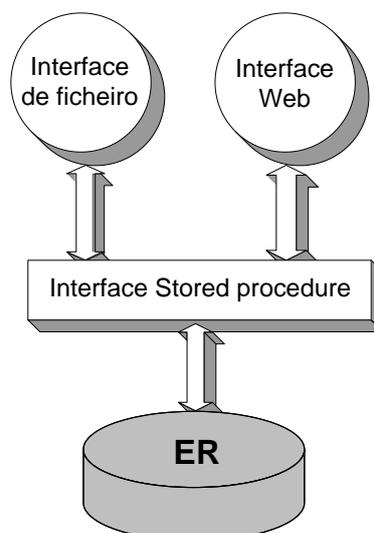
CPD Edinfor
 Rua Particular EDP, à Rua Cidade de Goa, 11
 2686-964 Sacavém
 PPCA phone number: 219408100

8.3 Logic interface

There are three types of logic interface with the RE, a Stored Procedure Call interface, a file interface for the sending and receipt of messages and obtaining of information, and a WEB interface only for obtaining information.

The Stored Procedure Call interface is the main interface with the application of the RE, and the files interface and WEB are solutions which use the Stored Procedure Call interface.

To exchange messages, the best control and least possibility of errors will be obtained using the Stored Procedure Call interface directly. The reason for this is that when the Stored Procedure Interface is used communication between the customer and the server is synchronous unlike the files interface where communication between the customer and the server is asynchronous.



8.3.1 Stored procedure call Interface

8.3.1.1 General

A library of stored procedures is supplied to be included in the Providers' BackOffice with the RE system. This interface is based on stored procedures on Sybase Adaptive Server. The Sybase stored procedures may be called up by most application development tools, via a link interface to the database such as ODBC, JDBC and Sybase Open Client Library. A stored procedure may return a result to the invoking application. This chapter defines the stored procedure library for the messages and the exchange of reference with the RE system.

8.3.1.2 Polling

It is recommended that the RE is consulted about new messages every 60 seconds.

8.3.1.3 General definition of procedure call

8.3.1.3.1 Return Codes Value

After the execution of a stored procedure is concluded, one of the following codes is present in the response to the calling application. Negative error codes are specific to Sybase:

- >0 ER errors generated in accordance with Section **Error! Reference source not found**. Error codes
- 0 OK
- 1 Missing object
- 2 Datatype error
- 3 Process was chosen as deadlock victim
- 4 Permission error
- 5 Syntax error
- 6 Miscellaneous user error
- 7 Resource error, such as out of space
- 8 Non-fatal internal problem
- 9 System limit was reached
- 10 Fatal internal inconsistency
- 11 Fatal external inconsistency
- 12 Table or index is corrupt
- 13 Database is corrupt
- 14 Hardware error

8.3.1.3.2 Specific Errors of the Stored procedure Interface

The following error codes are to be used in conjunction with the login and change of password, and validation of the invocation of the stored procedure.

| Cod. | Description | RE | Fixed Provider | Mobile Provider |
|------|---|----|----------------|-----------------|
| | Stored procedure interface errors | | | |
| 400 | Invalid user name | ✓ | | |
| 401 | Invalid access code | ✓ | | |
| 402 | Account locked due to intruder attempt | ✓ | | |
| 403 | Access code already used previously. Choose another please. | ✓ | | |
| 404 | New access code must be written twice | ✓ | | |
| 405 | Reserved for future use | ✓ | | |
| 406 | Session ID does not exist | ✓ | | |

| | | | | |
|-----|--|---|--|--|
| 407 | Session terminated ²⁹ | ✓ | | |
| 408 | Message sender identity does not match user identity ³⁰ | ✓ | | |
| 409 | MessageID does not exist ³¹ | ✓ | | |
| 410 | Wrong message type ³² | ✓ | | |
| 411 | Invalid Provider ID ³³ | ✓ | | |
| 416 | User session expired. Log in once more. | ✓ | | |
| 441 | Not authorized. | ✓ | | |
| 442 | Logout accepted. | ✓ | | |
| 443 | The user is already logged out. | ✓ | | |

8.3.1.3.3 Parameter names

All the parameters used in the RE solution have a prefix added to their name in accordance with the direction of the data flow in the procedures call interface:

- @ip_ Inbound Parameter, the variable is treated as read-only within the procedures
- @op_ Outbound Parameter, the variable is treated as read/write within the procedures

8.3.1.4 Stored Procedures available

The following stored procedures are available in the RE solution:

```
ssp_user_login
ssp_user_logout
ssp_ER_InfReq_get
ssp_msg_get
ssp_msg_out
ssp_msg_in
ssp_provider_get
```

8.3.1.5 Session management procedures

All the processes that will interact with the RE systems must acquire a SessionID. All invocation of procedures must include a SessionID. This will be validated against the identification of the invoker and the status of the referred session will belong to the procedure caller.

8.3.1.5.1 Initiating a session with the RE system

A SessionID object is typically obtained via the ssp_user_login procedure. When the identification matches the authentic information supplied, a SessionID is assigned and returned to the caller.

²⁹ The user session will terminate after a predefined period of inactivity. The user must login again.

³⁰ The sender of the message must represent the current Service Provider (for example, identified as Recipient or Donor)

³¹ This error is returned if the user tries to obtain a message from an inexistent MessageID.

³² This is returned if the user specifies an incorrect MessageTypeID when obtaining a message

³³ A user may only obtain messages addressed to the Provider that the user represents

| | | |
|-----------------------|--|--|
| ssp_user_login | <p>This procedure is called up to identify and authenticate a user login to the RE system.</p> <p>This procedure also calls up the ssp_session_create procedure which creates and manages the session that the connected user will use during the whole of the period that the session is in use.</p> | |
| Name | Description | Commentary |
| @ip_UserName | Submitted by the user via the login screen | varchar(30) |
| @ip_Password | Submitted by the user via the login screen | varchar(30) (encrypted by the browser / server communication protocol) |
| @op_SessionID | Unique session reference key | numeric(10) |
| @op_UserID | Unique user identification key | numeric(10) |
| @op_UserDescription | Full name of user and description | varchar(255) |
| @op_LastSuccessful | Descriptive text of last successful link | varchar(255) |
| @op_LastFailed | Descriptive text of last failed link | varchar(255) |
| @op_Message | Possible text message | varchar(255) |
| @op_ReturnCode | In accordance with the result codes table | int |

8.3.1.5.2 *Ending a session with the RE system*

When the work is finished the session must be closed and completed with the `ssp_user_logout` procedure call. This removes the user from the list of current active users (otherwise the user is removed after a certain period of time).

| | | |
|------------------------|--|-----------------|
| ssp_user_logout | <p>This procedure is called up to disconnect the user from the RE system, and complete the work session.</p> <p>This procedure also calls up the ssp_session_complete procedure which, in turn, closes the session that the user has been using during the whole session.</p> | |
| Name | Description | Comments |
| @ip_SessionID | Unique session reference key | numeric(10) |
| @op_Message | Possible text message | varchar(255) |
| @op_ReturnCode | In accordance with the result codes table | int |

Example:

```
declare @tmp_SessionID numeric(10)
```

```

declare @tmp_ReturnCode int
-- Log in
Exec ssp_user_login
    @ip_UserName = 'pedro',
    @ip_Password = 'rbk4ever',
    @op_SessionID = @tmp_SessionID output,
    @op_ReturnCode = @tmp_ReturnCode output
-- carry out work
....
-- log out
Exec ssp_user_logout
    @ip_SessionID = @tmp_SessionID ,
    @op_ReturnCode = @tmp_ReturnCode output

```

8.3.1.6 Information request

8.3.1.6.1 Read information available at the ER

The following procedure is used to read information saved at the RE. This may be NRN information or information on the status of portings.

| ssp_ER_InfReq_get | This procedure returns the result with information available at the RE. | |
|--------------------------|--|--------------|
| Common parameters | Description | Data type |
| @ip_SessionID | Unique session reference key | numeric(10) |
| @ip_ReportType | See section 6.54 | smallint |
| @ip_TypeOfNumber | Type of number to be obtained | tinyint |
| @ip_FirstTelephoneNumber | Telephone phone number to be obtained. If null, all are selected. | varchar(20) |
| @ip_LastTelephoneNumber | Telephone phone number to be obtained. If null, all are selected. | varchar(20) |
| @ip_PresentNRN | | char(7) |
| @ip_DateTimeFrom | Start of the interval within which alterations are obtained. If null, there is no start to the interval. | datetime |
| @ip_DateTimeTo | End of the interval within which alterations are obtained. If null, there is no end to the interval. | datetime |
| @ip_EROrderNumberFrom | First EROrderNumber to be listed. If null, all are selected from and including the first EROrderNumber. | char(14) |
| @ip_EROrderNumberTo | Last EROrderNumber to be listed. If null, all are selected to and including the last EROrderNumber. | char (14) |
| @ip_HolderID | Holding Service Provider. If null, all are selected . | char(3) |
| @ip_DonorID | Donor Service Provider. If null, all are selected. | char(3) |
| @ip_max_rows | Maximum number of output rows. If null, all rows will be returned. | Integer |
| @op_Message | Written procedure message. Penultimate parameter in the list of parameters. | varchar(255) |
| @op_errorlevel_id | Call Returncode. | int |
| @op_errorcode_id | Call Returncode. | int |

The entry parameters available for each type of report are listed in the following table.

| ReportType | NRN Information | | | Porting requests information | | | | | | | |
|--------------------------------|-----------------|---|---|------------------------------|---|---|---|---|---|---|----|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Entry parameters | | | | | | | | | | | |
| @ip_SessionID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| @ip_ReportType | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| @ip_TypeOfNumber | | ✓ | ✓ | | | | | | | | |
| @ip_FirstTelephoneNumber | | ✓ | ✓ | | | | | | | | |
| @ip_LastTelephoneNumber | | ✓ | ✓ | | | | | | | | |
| @ip_PresentNRN | | ✓ | | | | | | | | | |
| @ip_DateTimeFrom | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| @ip_DateTimeTo | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| @ip_EROrderNumberFrom | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| @ip_EROrderNumberTo | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| @ip_OriginatingOrderNumberFrom | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| @ip_OriginatingOrderNumberTo | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| @ip_HolderID | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| @ip_DonorID | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |

The result varies according to the report type. The table below shows the relationship between the columns in the result and type of report.

NOTE: A new column (7) must be added to give the report “Request pending execution” with the AgreedPortingTime filled in (adding the entry parameters of report 6 – “Request pending confirmation”).

| ReportType | NRN Information | | | Porting requests information | | | | | | | |
|------------------------------|-----------------|---|---|------------------------------|---|---|---|---|---|---|----|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Columns in the result | | | | | | | | | | | |
| MessageTypeID | | | | | | | | | | | ✓ |
| MessageDateAndTime | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| DateTimeField | | | | | | | | | | ✓ | ✓ |
| EROrderNumber | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ProcessID | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| MessageID | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| TotalNumberOfRequests | | | | ✓ | | | ✓ | ✓ | | | |
| SequenceNumber | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | |
| DonorID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| HolderID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| ProviderID | | | | | | | | | | ✓ | |
| PortationStatus | | | ✓ | | | | | | | | |
| CustomerName | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| TypeOfNumber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| PABXMainTelephoneNumber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| FirstTelephoneNumber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| LastTelephoneNumber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| PresentNRN | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| NewNRN | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| DateTimeFrom | ✓ | ✓ | ✓ | | | | | | | | |
| DateTimeTo | ✓ | ✓ | ✓ | | | | | | | | |
| 1stPortingTime | | | | ✓ | | | ✓ | ✓ | | | |

| ReportType | NRN Information | | | Porting requests information | | | | | | | |
|-----------------------|-----------------|---|---|------------------------------|---|---|---|---|---|---|----|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Columns in the result | | | | | | | | | | | |
| 2ndPortingTime | | | | ✓ | | | ✓ | ✓ | | | |
| 3rdPortingTime | | | | ✓ | | | ✓ | ✓ | | | |
| AgreedPortingTime | | | | | | | | ✓ | ✓ | | ✓ |
| NRNAlterationTime | | | | | | | | | | | ✓ |
| ReturnDate | | | | | | | | | | | ✓ |
| UpdateAction | | | | | | | | | | | ✓ |
| ErrorCode | | | | | | ✓ | | | | | |
| ErrorText | | | | | | ✓ | | | | | |

Example 1:

The following call obtains a full report of the ported numbers:

```
ssp_ER_InfReq_get
  @ip_SessionID = 2099302,
  @ip_ReportType = 000,
  @op_Message = @message output,
  @op_ReturnCode = @ReturnCode output
```

The result consists of defining the above fields for the report type 000.

Example 2:

The following call obtains the complete history from 1 January 2002 to 15 January 2002:

```
ssp_ER_InfReq_get
  @ip_SessionID = 2099302,
  @ip_ReportType = 003,
  @ip_DatetimeFrom = "2002-01-02 00:00:00",
  @ip_DatetimeTo = "2002-01-02 00:00:00",
  @op_Message = @message output,
  @op_ReturnCode = @ReturnCode output
```

The result consists of defining the above fields for the report type 3.

Example 3:

The following call returns all the requests submitted to the current Provider. The current Provider is deduced from the SessionID.

```
ssp_ER_InfReq_get
  @ip_SessionID = 2099302,
  @ip_ReportType = 004,
  @ip_DatetimeFrom = "2002-10-01 00:00:00",
  @ip_DatetimeTo = "2002-10-01 00:00:00",
  @op_Message = @message output,
  @op_ReturnCode = @ReturnCode output
```

The result consists of defining the above fields for the report type 4.

8.3.1.6.2 *Message reception sequence*

The reception application in the Provider's BackOffice system carries out the following steps to obtain messages to be handled:

Open a session on the database (invoking ssp_user_login)

Obtain a list of messages to handle (invoking ssp_msg_get)

Read each message one by one.

Close the session on the database (invoking ssp_user_logout)

8.3.1.6.3 *Message Status*

Each message at the RE has a field called "transferstatus" to monitor the status of the messages in the transfer to the Provider's BackOffice system. The following values are possible:

Received: Received by the RE

Transferred: Message transferred to the Provider's BackOffice system.

When a message is received in the RE, the status is "received". When the Provider's BackOffice system reads the message calling up the correct procedure for the message type, the message receives the status of "transferred".

8.3.1.6.4 *Obtain list of messages to be handled*

The ssp_msg_get procedure returns the list of messages from the RE. The parameters decide the selection of messages to be returned.

| ssp_msg_get | This procedure returns the list of messages from the RE. The parameters decide the selection of messages to be returned. | |
|------------------------|---|--------------|
| Name | Description | Data type |
| @ip_SessionID | Unique session reference key | numeric(10) |
| @ip_MessageDateAndTime | Date of the messages on the list is greater or equal to this date. If null, all the dates are selected. | datetime |
| @ip_Status | Status of the messages to be returned. The following values are accepted: 0: received: the list contains all the messages not dealt with at the RE. 1: transferred: The list contains transferred messages. If not defined, all the messages not handled are selected (0). | tinyint |
| @ip_MessageID | If defined, the message indicated is selected for the list. If null, all the identifiers are selected. | char(14) |
| @ip_MessageTypeID | If defined, only the message type indicated is selected for the list. If null, all message types. | smallint |
| @op_Message | Possible text message | varchar(255) |

| ssp_msg_get | This procedure returns the list of messages from the RE. The parameters decide the selection of messages to be returned. | |
|----------------|--|-----------|
| Name | Description | Data type |
| @op_ReturnCode | In accordance with the result codes table | int |

The following fields are returned in the result:

| Field | Data type | Description |
|--------------------|-----------|---|
| MessageID | char(14) | ID of the message |
| MessageTypeID | int | ID of the message type. Message types are defined in section 5. |
| MessageDateAndTime | datetime | Timestamp for receipt of the message in the RE. |

8.3.1.6.5 Read messages at the RE

This procedure picks up all the parameters possible as entry parameters. The result varies depending on the message type and according to the table at the end of this section.

The result for each message type is described in the results matrix at the end of this section. If a column has no value, the value NULL is returned for that column.

The values of the message fields are returned both in the result and in the corresponding exit parameters. The data may be obtained by using both the result or the exit parameters. Use of the exit parameters is recommended.

| ssp_msg_out | This procedure returns the information from a message from the RE. | |
|--|--|--|
| Common Parameters | Description | Data type |
| @ip_SessionID | Unique session reference key. Position 1 in the list of parameters. | numeric(10) |
| @ip_MessageID | Message ID to be obtained. Position 2 in the list of parameters. | char(14) |
| @ip_MessageTypeID | Message type identifier. This value corresponds to the table in section 6.1. | smallint |
| @op_MessageDateAndTime @op_EROrderNumber @op_ProcessID @op_ParentMessageID @op_OriginatingOrderNumber @op_TotalNumberOfRequests @op_SequenceNumber @op_DonorID @op_HolderID @op_RecipientID @op_RecipientContactName @op_RecipientContactTelephone @op_RecipientContactFax @op_RecipientContactEmail @op_HolderContactName @op_HolderContactTelephone | See section 6 for a description of each of the parameters. | datetime char (14) char (14) char (14) char(14) int int char(3) char(3) char(3) varchar(30) varchar(20) varchar(20) varchar(50) varchar(30) varchar(20) |

| ssp_msg_out | This procedure returns the information from a message from the RE. | |
|------------------------------|--|--------------|
| Common Parameters | Description | Data type |
| @op_HolderContactFax | | varchar(20) |
| @op_HolderContactEmail | | varchar(50) |
| @op_CustomerName | | varchar(80) |
| @op_CustomerSIM | | char(19) |
| @op_CustomerStreet | | varchar(60) |
| @op_CustomerLocation | | varchar(35) |
| @op_CustomerCodeAndLocation | | varchar(60) |
| @op_CustomerDocumentIDType | | tinyint |
| @op_CustomerDocumentID | | varchar(12) |
| @op_TypeOfNumber | | tinyint |
| @op_PABXMainTelephoneNumber | | varchar(20) |
| @op_FirstTelephoneNumber | | varchar(20) |
| @op_LastTelephoneNumber | | varchar(20) |
| @op_Facilities | | smallint |
| @op_PresentNRN | | char(7) |
| @op_NewNRN | | char(7) |
| @op_ChargingInfo | | varchar(20) |
| @op_1stPortingTime | | datetime |
| @op_2ndPortingTime | | datetime |
| @op_3rdPortingTime | | datetime |
| @op_AgreedPortingTime | | datetime |
| @op_NRNAlterationTime | | datetime |
| @op_UrgentAlteration | | tinyint |
| @op_CoordinatedAction | | varchar(35) |
| @op_TerminationDate | | datetime |
| @op_ReturnDate | | datetime |
| @op_ProviderList | | varchar(255) |
| @op_UpdateAction | | tinyint |
| @op_ErrorCode | | int |
| @op_ErrorText | | varchar(255) |
| @op_Remarks | | varchar(255) |
| @op_Auxiliary1 | | varchar(10) |
| @op_Auxiliary2 | | varchar(2) |
| @op_Auxiliary3 | | varchar(3) |
| @op_Auxiliary4 | | varchar(255) |
| @op_Auxiliary5 | | varchar(255) |
| @op_Auxiliary6 | | varchar(255) |
| @op_Message | Written procedure message | varchar(255) |
| @op_ReturnCode | Call Returncode. | int |
| @op_OriginatingMessageTypeID | Originating messagetypeID | int |

The corresponding result depends on the message type. The results matrix is shown below. A ✓ indicates that the message type possesses that column.

In the Stored Procedure Call interface, messages 4, 16 and 17 are implemented as synchronous responses and are not read or written by the general procedures ssp_msg_in and ssp_msg_out. Message 17 is the result of ssp_ER_InfReq_Get in the section 8.3.1.6.1.

| Message | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 18 | 19 |
|----------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|
| Column in the result | | | | | | | | | | | | | | | | |
| MessageTypeID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MessageDateAnd | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| Message | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 18 | 19 |
|----------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|
| Column in the result | | | | | | | | | | | | | | | | |
| Time | | | | | | | | | | | | | | | | |
| EROrderNumber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ProcessID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| MessageID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ParentMessageID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| OriginatingOrder Number | ✓ | ✓ | ✓ | | | | | | | | | | | | | ✓ |
| TotalNumberOfR equests | ✓ | | | ✓ | | | | | ✓ | | | | | | ✓ | |
| SequenceNumbe r | ✓ | | | ✓ | | | | | ✓ | | | | | | ✓ | ✓ |
| DonorID | ✓ | ✓ | | ✓ | ✓ | | | | ✓ | | | | | | ✓ | |
| HolderID | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | | | ✓ | |
| ReceipientID | ✓ | | | ✓ | | | ✓ | | ✓ | | | | | | ✓ | |
| RecipientContact Name | ✓ | | | ✓ | | | | | ✓ | | | | | | | |
| RecipientContact Telephone | ✓ | | | ✓ | | | | | ✓ | | | | | | | |
| RecipientContact Fax | ✓ | | | ✓ | | | | | ✓ | | | | | | | |
| RecipientContact E-mail | ✓ | | | ✓ | | | | | ✓ | | | | | | | |
| HolderContactNa me | | | | ✓ | | | | | ✓ | | | | | | | |
| HolderContactTel ephone | | | | ✓ | | | | | ✓ | | | | | | | |
| HolderContactFa x | | | | ✓ | | | | | ✓ | | | | | | | |
| HolderContactE- mail | | | | ✓ | | | | | ✓ | | | | | | | |
| CustomerName | ✓ | | | | | | | | | | | | | | | |
| CustomerSIM | ✓ | | | | | | | | | | | | | | | |
| CustomerStreet | ✓ | | | | | | | | | | | | | | | |
| CustomerLocatio n | ✓ | | | | | | | | | | | | | | | |
| CustomerCodeAn dLocation | ✓ | | | | | | | | | | | | | | | |
| CustomerDocum entIDType | ✓ | | | | | | | | | | | | | | | |
| CustomerDocum entId | ✓ | | | | | | | | | | | | | | | |
| TypeOfNumber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| PABXMainTeleph oneNumber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| FirstTelephoneNu mber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| LastTelephoneNu mber | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| Facilities | ✓ | | | | | | | | | | | | | | | |
| PresentNRN | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| NewNRN | ✓ | | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |

| Message | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 18 | 19 |
|----------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|
| Column in the result | | | | | | | | | | | | | | | | |
| ChargingInfo | ✓ | | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | | | | ✓ | |
| 1stPortingTime | ✓ | | | | | | | | | | | | | | | |
| 2ndPortingTime | ✓ | | | | | | | | | | | | | | | |
| 3rdPortingTime | ✓ | | | | | | | | | | | | | | | |
| AgreedPortingTime | | | | ✓ | | | | | ✓ | | | | | | | |
| NRNAlterationTime | | | ✓ | | | ✓ | | | | | | | | | | |
| UrgentAlteration | | | ✓ | | | ✓ | | | | | | | | | | |
| CoordinatedAction | ✓ | | | | | | | | | | | | | | | |
| TerminationDate | | ✓ | | | ✓ | | | | | | | | | | | |
| ReturnDate | | | | | ✓ | | | | | | | | | | | |
| ProviderList | | | | | | | | | | ✓ | | ✓ | | | | |
| UpdateAction | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | | | | | | |
| ErrorCode | | | | | | | | | | | | | | | ✓ | ✓ |
| ErrorText | | | | | | | | | | | | | | | ✓ | ✓ |
| Remarks | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| Auxiliary1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| Auxiliary2 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| Auxiliary3 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| Auxiliary4 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| Auxiliary5 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| Auxiliary6 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | ✓ | ✓ |
| Message | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ReturnCode | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

The message column contains the text corresponding to the ReturnCode. If the returncode is 0 the message column is NULL.

An example of the use of the procedure to obtain an NPRequest message:

Declare

```

@MessageDateAndTime datetime,
@EROrderNumber char(14),
@ProcessID char(14),
@MessageID char(14),
@ParentMessageID char(14),
@TotalNumberOfRequests int,
@SequenceNumber int,
@DonorID char(3),
@HolderID char(3),
@RecipientID char(3),
@RecipientContactName varchar(30),
@RecipientContactTelephone varchar(20),
@RecipientContactFax varchar(20),
@RecipientContactEmail varchar(50),
@CustomerName varchar(80),
@CustomerSIM char(19),
@CustomerStreet varchar(60),
@CustomerLocation varchar(35),

```

```

@CustomerCodeAndLocation varchar(60),
@CustomerDocumentIDType tinyint,
@CustomerDocumentID varchar(12),
@TypeOfNumber tinyint,
@PABXMainTelephoneNumber varchar(20),
@FirstTelephoneNumber varchar(20),
@LastTelephoneNumber varchar(20),
@Facilities tinyint,
@PresentNRN char(7),
@NewNRN char(7),
@ChargingInfo varchar(255),
@1stPortingTime datetime,
@2ndPortingTime datetime,
@3rdPortingTime datetime,
@CoordinatedAction varchar(35),
@UpdateAction tinyint,
@Remarks varchar(255),
@Auxiliary1 varchar(10),
@Auxiliary2 varchar(2),
@Auxiliary3 varchar(3),
@Auxiliary4 varchar(255),
@Auxiliary5 varchar(255),
@Auxiliary6 varchar(255),
@message varchar(255),
@ReturnCode int,
exec ssp_msg_out
@ip_SessionID = 2099302,
@ip_MessageTypeID = 1, -- NPRequest
@ip_MessageID = 301,
@op_MessageDateAndTime = @MessageDateAndTime output,
@op_EROrderNumber = @EROrderNumber output,
@op_ProcessID = @ProcessID output,
@op_MessageID = @MessageID output,
@op_ParentMessageID = @ParentMessageID output,
@op_TotalNumberOfRequests = @TotalNumberOfRequests output,
@op_SequenceNumber = @SequenceNumber output,
@op_DonorID = @DonorID output,
@op_HolderID = @HolderID output,
@op_RecipientID = @RecipientID output,
@op_RecipientContactName = @RecipientContactName output,
@op_RecipientContactTelephone = @RecipientContactTelephone output,
@op_RecipientContactFax = @RecipientContactFax output,
@op_RecipientContactEmail = @RecipientContactEmail output,
@op_CustomerName = @CustomerName output,
@op_CustomerSIM = @CustomerSIM output,
@op_CustomerStreet = @CustomerStreet output,
@op_CustomerLocation = @CustomerLocation output,
@op_CustomerCodeAndLocation = @CustomerCodeAndLocation output,
@op_CustomerDocumentIDType = @CustomerDocumentIDType output,
@op_CustomerDocumentID = @CustomerDocumentID output,
@op_TypeOfNumber = @TypeOfNumber output,
@op_PABXMainTelephoneNumber = @PABXMainTelephoneNumber output,
@op_FirstTelephoneNumber = @FirstTelephoneNumber output,
@op_LastTelephoneNumber = @LastTelephoneNumber output,
@op_Facilities = @Facilities output,

```

@op_PresentNRN = @PresentNRN output,
 @op_NewNRN = @NewNRN output,
 @op_ChargingInfo = @ChargingInfo output,
 @op_1stPortingTime = @1stPortingTime output,
 @op_2ndPortingTime = @2ndPortingTime output,
 @op_3rdPortingTime = @3rdPortingTime output,
 @op_CoordinatedAction = @CoordinatedAction output,
 @op_UpdateAction = @UpdateAction output,
 @op_Remarks = @Remarks output,
 @op_Auxiliary1 = @Auxiliary1 output,
 @op_Auxiliary2 = @Auxiliary2 output,
 @op_Auxiliary3 = @Auxiliary3 output,
 @op_Auxiliary4 = @Auxiliary4 output,
 @op_Auxiliary5 = @Auxiliary5 output,
 @op_Auxiliary6 = @Auxiliary6 output,
 @op_Message = @message output,
 @op_ReturnCode = @ReturnCode output,
 @op_OriginatingMessageTypeID = OriginatingMessageTypeID

8.3.1.7 Message sending sequence

The sending application in the Service Provider's BackOffice system must carry out the following steps to receive the message to be handled:

- 1 Open a session on the database (invoking ssp_user_login)
- 2 Write/send the messages (invoking ssp_msg_in)
- 3 Disconnect from the database (invoking ssp_user_logout)

8.3.1.7.1 Write a message at the RE

To write a message at the RE, the ssp_msg_in procedure is used. The message type and all the fields that belong to the message type are given as parameters to the procedure, in the sequence given for the message type. Internally at the RE, the name of the parameters receives the prefix "@ip_".

Values corresponding to the parameters which are N/A from the Providers to the RE but mandatory from the RE to the Providers are generated automatically by the system. Null parameters may be filled in with "null" or skipped.

| | | |
|---|--|---|
| ssp_msg_in | This procedure writes the information of a message at the RE. | |
| Common parameters | Description | Data type |
| @ip_SessionID | Unique session reference key. Position 1 in the list of parameters. | numeric(10) |
| @ip_MessageTypeID | Identifier of the message type. The value corresponds to the table in chapter 6.1. | smallint |
| @ip_MessageDateAndTime @ip_EROrderNumber @ip_ProcessID @ip_ParentMessageID @ip_OriginatingOrderNumber @ip_TotalNumberOfRequests @ip_SequenceNumber @ip_DonorID @ip_HolderID @ip_RecipientID @ip_RecipientContactName @ip_RecipientContactTelephone | See chapter 6 | datetime char(14) char(14) char(14) char(14) int int char(3) char(3) char(3) varchar(30) varchar(20) |

| | | |
|------------------------------|---|--------------|
| ssp_msg_in | This procedure writes the information of a message at the RE. | |
| Common parameters | Description | Data type |
| @ip_RecipientContactFax | | varchar(20) |
| @ip_RecipientContactEmail | | varchar(50) |
| @ip_HolderContactName | | varchar(30) |
| @ip_HolderContactTelephone | | varchar(20) |
| @ip_HolderContactFax | | varchar(20) |
| @ip_HolderContactEmail | | varchar(50) |
| @ip_CustomerName | | varchar(80) |
| @ip_CustomerSIM | | char(19) |
| @ip_CustomerStreet | | varchar(60) |
| @ip_CustomerLocation | | varchar(35) |
| @ip_CustomerCodeAndLocation | | varchar(60) |
| @ip_CustomerDocumentIDType | | tinyint |
| @ip_CustomerDocumentID | | varchar(12) |
| @ip_TypeOfNumber | | tinyint |
| @ip_PABXMainTelephoneNumber | | varchar(20) |
| @ip_FirstTelephoneNumber | | varchar(20) |
| @ip_LastTelephoneNumber | | varchar(20) |
| @ip_Facilities | | smallint |
| @ip_PresentNRN | | char(7) |
| @ip_NewNRN | | char(7) |
| @ip_ChargingInfo | | varchar(255) |
| @ip_1stPortingTime | | datetime |
| @ip_2ndPortingTime | | datetime |
| @ip_3rdPortingTime | | datetime |
| @ip_AgreedPortingTime | | datetime |
| @ip_NRNAlterationTime | | datetime |
| @ip_UrgentAlteration | | tinyint |
| @ip_CoordinatedAction | | varchar(35) |
| @ip_TerminationDate | | datetime |
| @ip_ReturnDate | | datetime |
| @ip_ProviderList | | varchar(255) |
| @ip_UpdateAction | | tinyint |
| @ip_ErrorCode | | int |
| @ip_ErrorText | | varchar(255) |
| @ip_Remarks | | varchar(255) |
| @ip_Auxiliary1 | | varchar(10) |
| @ip_Auxiliary2 | | varchar(2) |
| @ip_Auxiliary3 | | varchar(3) |
| @ip_Auxiliary4 | | varchar(255) |
| @ip_Auxiliary5 | | varchar(255) |
| @ip_Auxiliary6 | | varchar(255) |
| @op_EROrderNumber | Generated by the RE for messages which initiate a porting flow. | char(14) |
| @op_ProcessID | Generated by the RE for messages which initiate a process flow. | char(14) |
| @op_MessageID | Message ID of the message sent. Last position in the list of parameters. | char(14) |
| @op_Message | Written procedure message. | varchar(255) |
| @op_ReturnCode | Call Returncode. | int |
| @op_OriginatingMessageTypeID | Message type of the message that was successfully or unsuccessfully sent to the | int |

| | | |
|------------------------|---|-----------|
| ssp_msg_in | This procedure writes the information of a message at the RE. | |
| Common parameters | Description | Data type |
| | RE. | |
| @op_MessageDateAndTime | ER Timestamp of the message. | datetime |

The following fields are returned with the result:

| Field | Data type | Description |
|--------------------------|--------------|-----------------|
| MessageDateAndTime | datetime | See table below |
| EROrderNumber | char(14) | See table below |
| ProcessID | char(14) | See table below |
| MessageID | char(14) | See table below |
| Message | varchar(255) | See table below |
| ReturnCode | int | See table below |
| OriginatingMessageTypeID | int | See table below |

Example of the use of the procedure for sending a message.

```
exec ssp_msg_in
    @ip_SessionID = 2099302,
    @ip_MessageTypeID = 1, -- NPRequest
    @ip_MessageDateAndTime = "2001-12-07 13:40:23",
    @ip_EROrderNumber = null,
    @ip_ProcessID = null,
    @ip_ParentMessageID = null,
    @ip_OriginatingOrderNumber = "08300000001001",
    @ip_TotalNumberOfRequests = "1",
    @ip_SequenceNumber = "1",
    @ip_DonorID = null,
    @ip_HolderID = null,
    @ip_RecipientID = null,
    @ip_RecipientContactName = "Paulo",
    @ip_RecipientContactTelephone = "234576587",
    @ip_RecipientContactFax = "234576589",
    @ip_RecipientContactEmail = "paulo@customercare.pt"
    @ip_CustomerName = "Alexis Monte",
    @ip_CustomerSIM = "89351011000824000570"
    @ip_CustomerStreet = null,
    @ip_CustomerLocation = null,
    @ip_CustomerCodeAndLocation = null,
    @ip_CustomerDocumentIDType = 0,
    @ip_CustomerDocumentID = "AF345Q123"
    @ip_TypeOfNumber = 1,
    @ip_PABXMainTelephoneNumber = null,
    @ip_FirstTelephoneNumber = "54942349988",
    @ip_LastTelephoneNumber = "54942349988",
    @ip_Facilities = 0,
    @ip_PresentNRN = null,
    @ip_NewNRN = "D083001",
    @ip_ChargingInfo = null,
    @ip_1stPortingTime = "2001-08-10 10:30:00",
```

```

@ip_ 2ndPortingTime = "2001-08-10 15:30:00",
@ip_ 3rdPortingTime = "2001-08-10 19:30:00",
@ip_ CoordinatedAction = null,
@ip_ UpdateAction = null,
@ip_ Remarks = "VIP customer"
@ip_ Auxiliary1 = null,
@ip_ Auxiliary2 = null,
@ip_ Auxiliary3 = null,
@ip_ Auxiliary4 = null,
@ip_ Auxiliary5 = null,
@ip_ Auxiliary6 = null,
@ip_ Message = null,
@op_ EROrderNumber = @EROrderNumber output
@op_ ProcessID = @ProcessID output
@op_ MessageID = @MessageID output
@op_ Message = @message output,
@op_ ReturnCode = @ReturnCode output,
@op_ OriginatingMessageTypeID = @OriginatingMessageTypeID output
@op_ MessageDateAndTime = @MessageDateAndTime output

```

8.3.1.8 Obtain Providers

The stored procedure `ssp_provider_get` returns all the active Providers.

| | | |
|-------------------------------|--|-------------|
| <code>ssp_provider_get</code> | This stored procedure returns the list of Service Providers from the RE. The parameters indicate the selection of messages returned. | |
| Name | Description | Data type |
| <code>@ip_SessionID</code> | Unique session reference key | numeric(10) |
| <code>@op_ReturnCode</code> | In accordance with the Result Codes table | int |

The following fields are returned in the result:

| Field | Data type | Description |
|--------------------------|--------------|--|
| <code>provider_id</code> | smallint | Identification of the Service Provider |
| <code>name</code> | varchar(255) | Name of Service Provider |

8.3.2 Files interface

8.3.2.1 General

The interface based on files is supplied by the RE system for the integration of the existing Service Providers with systems based on files to the RE. The files interface supplies all the functions necessary for interacting with the RE. This chapter specifies the files that may be used to communicate with the RE via the files interface.

8.3.2.2 Polling

It is recommended that the existence of new messages in the RE be checked every 60 seconds.

8.3.2.3 Exchange of files

Each Provider that uses the files interface with the RE is given exclusive access to an allocated directory in the RE FTP server. Files are transferred between the RE and the Provider’s BackOffice system by FTP. The customer does not need to be connected to the database.

A File Handler application runs in the RE. The File Handler periodically checks for new messages, which are processed using the stored procedure interface. The RE responds and exit messages are made available to the Provider. Typically a File Handler process is allocated to each Provider.

Two directories are made available at the RE, one for upload (to the RE), and another for download (to the Service Provider’s BackOffice).

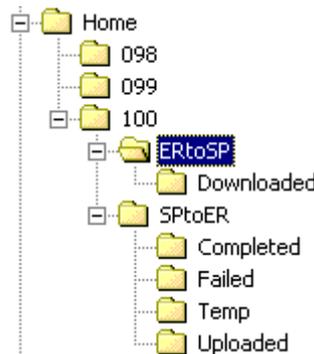
8.3.2.3.1 Convention of names and file structure

Two different types of file are defined.

| File type | Convention | Example |
|-------------|--|--------------------------|
| Transaction | <providerID>_<timestamp>_<sequence number>.txt | 100_20010719203010_0.txt |
| Log | <date>.log | 2001-04-01.log |

Log files are only for internal use. A log file is created each day, and each event is recorded in the file.

Transactions files are located in different directories. The following is the typical structure:



| Directory | Description |
|--------------|---|
| Home | The base directory at the FTP server. Contains the base directory for each Service Provider. |
| <providerID> | Base directory of the Service Provider |
| ERtoSP | Contains the transactional files addressed to the Service Provider, but not yet transferred. |
| Downloaded | Contains the transactional files of the Service Provider which have already been transferred. The Service Provider is responsible for moving the transferred files to this directory. |
| SPtoER | Directories structure for files uploaded by the Service Provider to the RE. |
| Completed | Contains transactional files which have been successfully processed by the ER |
| Failed | Contains transactional files which failed during processing. |
| Temp | The Service Provider uses this directory to upload transactional files to the RE. When uploading finishes, the file is moved to the Uploaded Directory, by the Service Provider. |

| | |
|----------|---|
| Uploaded | Contains transactional files being processed by the RE. |
|----------|---|

Transactional files are defined in chapter 8.3.2.4.1.

A typical scenario for the sending of a message is as follows:

- 1 Provider 100 creates a transactional file containing an NP Request.
- 2 The Provider connects to the RE FTP server.
- 3 The file is uploaded to the RE FTP server, in the directory /home/100/SptoER/Temp.
- 4 When file uploading is completed, the file is moved to the directory/home/100/SptoER/Uploaded.
- 5 The File Handler searches in the base directories, and finds a transactional file containing the NP Request.
- 6 The File Handler interprets the file, and invokes the stored procedure ssp_msg_in to send the message. The message is re-routed to the Holding Provider (for example, placing it in the ERtoSP directory which belongs to the Holding Provider – by another File Handler process). The login process is carried out initially (the File Handler operates on behalf of the Provider).
- 7 The procedure call ssp_msg_in returns the identifiers generated by the RE. The File Handler creates an RE Response message, which is encapsulated in a transactional file. This file is placed in the directory/home/100/ERtoSP. The uploaded message is moved to the directory/home/100/SptoER/Completed.
- 8 The Provider may upload the transactional file which contains the RE Response message (and the identifiers generated). After uploading the file the Provider moves the file to /home/100/ErtoSP/Downloaded.
- 9 When the Holding Provider sends an NP Request Confirmation message to the RE, the File Handler retrieves this message, which is in turn encapsulated in a new transactional file (other messages which have arrived may also be retrieved and encapsulated). The transactional file is placed in the directory ERtoSP.
- 10 The Provider finally uploads the new transactional file. After uploading, the file is moved to the directory/home/100/ErtoSP/Downloaded. The Provider extracts the information from the transactional file.

8.3.2.4 File format

8.3.2.4.1 Transactional files

Transactional files which are sent to and from the RE are structured as follows (EBNF notation):

```

transfile ::= header message+ trailer
header ::= headerhdr headerinfo
headerhdr ::= '[Header]' le
message ::= messagehdr messageinfo report*
messagehdr ::= '[Message]' le
report ::= reporthdr reportinfo
reporthdr ::= '[Report]' le
trailer ::= Trailerhdr trailerinfo
trailerhdr ::= '[Trailer]' le

```

Transactional files are sent as simple text files using the ISO 8859-1 characters range, and are structured as INI files as used in Microsoft Windows 3.1, 3.11, 95 and others. An example of the structure of the transactional file is shown below.

```

< Start of file >
[Header]

```

... Header information
 [Message]
 ... Transaction message
 [Message]
 ... Transaction message
 [Trailer]
 ... Trailer information
 < End of file >

The [Header] will always be the first section of the transactional file, and the [Trailer] will always be the last section of the transactional file.

The content of the [Header] is everything between the keyword [Header] and the first keyword [Message].

The content of the [Message] is everything between the keyword [Message] and the next keyword [Message] or the keyword [Trailer].

The [Message] may contain a [Report]. The content of the [Report] is everything between the keyword [Report] and the next keyword [Message] or the keyword [Trailer]. Only one report may be present for each message.

The content of the [Trailer] is everything between the keyword [Trailer] and the end of the file.

The RE processes the transactions in the order in which they are received and as quickly as possible, without unnecessary delays.

Files that are exchanged between the Provider and the RE are text files. The fields are separated by full-stop and comma and end of line. A field may only contain “printable characters”. This means, for example, that an end of line is not authorized in a field.

8.3.2.5 Parameters in the Header

8.3.2.5.1 [Header]

| | |
|-----------|---|
| Use: | Signals the start of the Header section |
| Example: | [Header] |
| Type: | fixed text |
| Length: | n/a |
| Valor(s): | none |
| Remarks: | |

8.3.2.5.2 *FileDateAndTime*

| | |
|-----------|--|
| Use: | Information about when the message was created in Central European Time. |
| Example: | FileDateAndTime=2001-01-19 13:35:34 |
| Type: | Datetime (YYYY-MM-DD hh:mm:ss) |
| Length: | 19 characters |
| Valor(s): | |
| Remarks: | |

8.3.2.6 Parameters in the Message

8.3.2.6.1 [Message]

| | |
|------|-----------------------------------|
| Use: | Signals the start of the message. |
|------|-----------------------------------|

| | |
|-----------|------------|
| Example: | [Message] |
| Type: | fixed text |
| Length: | n/a |
| Valor(s): | none |
| Remarks: | |

8.3.2.6.2 *Message Parameters*

For details of the parameters of the message, please see section 6, message parameters.

8.3.2.7 **Information in the report**

8.3.2.7.1 *[Report]*

| | |
|-----------|---------------------------------|
| Use: | Signals the start of the report |
| Example: | [Report] |
| Type: | fixed text |
| Length: | n/a |
| Valor(s): | none |
| Remarks: | |

8.3.2.8 **Examples of files**

8.3.2.8.1 *Example in message file*

A typical message sent from the Provider will have the following format:

```
[Header]
FileDateAndTime=2001-07-19 13:35:34
[Message]
MessageTypeID=12
MessageDateAndTime=2001-07-15 16:20:30
EROrderNumber=20010830000012
[Message]
MessageTypeID=5
MessageDateAndTime=2001-07-15 16:21:30
EROrderNumber=20010840000010
ProcessID=20010714000015
ParentMessageID=20010714000016
TotalNumberOfRequests=1
SequenceNumber=1
HolderContactName=Luis
HolderContactTelephone=234345678
AgreedPortingTime=2001-08-01 10:30:00
[Trailer]
MessageCount=2
```

8.3.2.8.2 *Example of a message file with report*

This example shows the message “NP ER Information Response”, containing information on NRNs.

```
[Header]
FileDateAndTime=2001-07-19 13:35:34
[Message]
MessageTypeID=17
MessageDateAndTime=2001-07-19 13:34:34
ReportType=1
```

NumberOfRows=3
 [Report]
 Heading=FirstTelephoneNumber,LastTelephoneNumber,NRN,HolderID,EROrderNumber,PortingTime
 Row1=234354780, 234354789,089,101,10100000005689,2001-07-19 12:00:00
 Row2=334354780, 334354780,067,098,09810000005689,2001-07-20 12:00:00
 Row3=434354780, 434354781,003,130,13000000005689,2001-07-19 10:00:00
 [Trailer]
 MessageCount=1

8.3.2.9 Infer messages, NP ER Response and NP Error

NP ER Response and NP Error are not considered messages with regard to the Stored Procedure Call Interface. The identifiers generated by the RE are synchronously returned by the invocation of the procedure. For the files interface, these identifiers must be re-routed to the user via a text file. To connect the RE Response to the message (sent via ER), some additional parameters are necessary. This is defined in sections 5.1.4 and 5.1.19. (Compare with subsection 8.3.1.7.1 Stored Procedure Call). The additional parameters are inferred by the File Handler, based on the processed message.

8.3.2.9.1 Example: infer parameters

Message sent (NP Request):
 MessageTypeID=1
 ParentMessageID=null
 OriginatingOrderNumber=00010001333489
 TotalNumberOfRequests=1
 SequenceNumber=1
 HolderContactName=Luis
 HolderContactTelephone=234345678
 AgreedPortingTime=2001-08-01 10:30:00
 ...

Response from the RE (received by the File Handler):

MessageDateAndTime=2001-07-15 16:20:30
 EROrderNumber=20010830000012
 ProcessID=20010714000015
 MessageID=20010714000016

The values of the parameters above are generated by the RE. The remaining parameters, in accordance with section 5.1.4, are inferred by the File Handler:

MessageTypeID=1
 SequenceNumber=1

9 WEB Interface for RE

The RE provides a WEB interface for providers to obtain information held by the RE.

The information available via this interface is the same information that is available via the NP Information Request message in the administrative procedures described earlier in this document.

9.1 Functionality supplied

The WEB interface supplies the following information in a user-friendly interface:

9.1.1 Log-on

The log-on consists of the ProviderID, UserID and UserPassword.

9.1.2 User management

Each Provider has the possibility to manage its own users. User management consists of:

- Adding new users
- Defining user profiles
 - User
 - Keyword
 - Permits
- Change of user profile
- Removal of users

9.1.3 Information request

9.1.3.1 NRN Information

The Providers may request information on:

- The complete reference database
- Information on NRNs for specific numbers
- Alteration history for numbers or number ranges

9.1.3.2 Porting requests information

The Providers may request information on:

- Porting requests submitted by the actual Provider
- Porting requests cancelled by the actual Provider
- Porting requests submitted by the actual Provider and rejected by the Donor/Holding Provider
- Pending porting requests submitted by the actual Provider
- Concluded porting requests
- Status of a specific porting, including list of Providers that have provided an Update Complete

10 Validation of number blocks and information on NRNs

The RE checks the numbers and NRN against its tables of number ranges and NRN. The ICP-Anacom is responsible for providing the correct information on number ranges (National Numbering Plan on its site) and is responsible for informing the Portabil when alterations occur. The correct information on associated NRN is the responsibility of the Service Providers.

- the RE verifies if the number(s) requested belongs to the holding provider
- the RE verifies if the NRN indicated does in fact belong to the recipient provider

Information to be supplied by ANACOM will include:

- Allocation of number ranges to providers;
- Allocation of company codes for the NRN to providers.

11 Translation Table for Messages and Parameters

See appendices 1, 2 and 3 for translation tables.

Appendix 1 – Translation of Message Names

| Message Name in English | Message Name in Portuguese |
|---|----------------------------|
| NP Request | PN_PedidoPortabilidade |
| NP Return | PN_RetornoNumero |
| NP NRN Alteration | PN_AlteracaoNRN |
| NP ER Response | PN_RespostaER |
| NP Request Confirmation | PN_ConfPedidoPortabilidade |
| NP Return Confirmation | PN_ConfRetornoNumero |
| NP NRN Alteration Confirmation | PN_ConfAlteracaoNRN |
| NP Complete | PN_Conclusao |
| NP NRN Alteration Complete | PN_AlteracaoNRNconcluida |
| NP Update | PN_Actualizacao |
| NP Update Complete | PN_ActualizacaoConcluida |
| NP Cancel | PN_Cancelamento |
| NP Cancel Confirmation | PN_ConfCancelamento |
| NP Portability Information | PN_Informacao |
| NP Portability Information Confirmation | PN_ConfInformacao |
| NP Information Request | PN_PedidoInformacao |
| NP ER Information Response | PN_RespostaInfoER |
| NP Reject | PN_Rejeicao |
| NP Error | PN_Erro |

Appendix 2 – Translation of Parameter Names

| Parameter Name in English | Parameter Name in Portuguese |
|---------------------------|------------------------------|
| 1stPortingTime | DataHoraPortacao1 |
| 2ndPortingTime | DataHoraPortacao2 |
| 3rdPortingTime | DataHoraPortacao3 |
| AgreedPortingTime | DataHoraPortacaoAcordada |
| Auxiliary1 | Auxiliar1 |
| Auxiliary2 | Auxiliar2 |
| Auxiliary3 | Auxiliar3 |
| Auxiliary4 | Auxiliar4 |
| Auxiliary5 | Auxiliar5 |
| Auxiliary6 | Auxiliar6 |
| ChargingInfo | InfoFacturacao |
| CoordinatedAction | AccaoCoordenada |
| CustomerCodeAndLocation | CodPostalCliente |
| CustomerDocumentID | DocIDcliente |
| CustomerDocumentIDType | TipoDocIDcliente |
| CustomerLocation | LocalidadeCliente |
| CustomerName | NomeCliente |
| CustomerSIM | SIMcliente |
| CustomerStreet | MoradaCliente |
| DateTimeFrom | DataHoraInicial |
| DateTimeTo | DataHoraFinal |
| DonorID | IDdoador |
| EROrderNumber | NumeroOrdemER |
| EROrderNumberFrom | NumeroOrdemER desde |
| EROrderNumberTo | NumeroOrdemER até |
| ErrorCode | CodigoErro |
| ErrorText | DescricaoErro |
| Facilities | Facilidades |
| FirstTelephoneNumber | NumTelefoneInicial |
| HolderContactE-mail | EmailContactoDetentor |
| HolderContactFax | FaxContactoDetentor |
| HolderContactName | NomeContactoDetentor |
| HolderContactTelephone | TelefoneContactoDetentor |
| HolderID | IDdetentor |
| LastTelephoneNumber | NumTelefoneFinal |
| MessageDateAndTime | DataHoraMensagem |
| MessageID | IDmensagem |
| MessageTypeID | IDtipoMensagem |
| NewNRN | NRNnovo |
| NRNAlterationTime | DataHoraAlteracaoNRN |
| NumberOfRows | NumLinhas |

| Parameter Name in English | Parameter Name in Portuguese |
|---------------------------|------------------------------|
| ProviderList | ListaPrestadores |
| OriginatingMessageTypeID | IDtipoMensagemOrigem |
| OriginatingOrderNumber | NumeroOrdemPrestador |
| PABXMainTelephoneNumber | NumTelefonePrincipalPPCA |
| ParentMessageID | IDmensagemAntecessora |
| PresentNRN | NRNactual |
| ProcessID | IDprocesso |
| RecipientContactE-mail | EmailContactoReceptor |
| RecipientContactFax | FaxContactoReceptor |
| RecipientContactName | NomeContactoReceptor |
| RecipientContactTelephone | TelefoneContactoReceptor |
| RecipientID | IDreceptor |
| Remarks | Observacoes |
| ReportType | TipoRelatorioPedido |
| ReturnDate | DataRetorno |
| SequenceNumber | NumeroSequencial |
| TerminationDate | DataTerminacao |
| TotalNumberOfRequests | NumTotalPedidos |
| TypeOfNumber | TipoNumero |
| UpdateAction | TipoAccaoNRN |
| UrgentAlteration | AlteracaoUrgente |

Appendix 3 – Translation of Error Texts

| Error code | English Text | Portuguese Text |
|------------|---|--|
| 101 | Parameter %1! is missing | Falta um Parâmetro %1! |
| 102 | Parameter is present more than once | Parâmetro está presente mais do que uma vez |
| 103 | Parameter content is illegal: %1! | Conteúdo do parâmetro inválido: %1! |
| 104 | Parameter content is missing | Conteúdo do parâmetro em falta |
| 105 | Parameter content not unique | Conteúdo do parâmetro não é exclusivo |
| 106 | Invalid telephone number | Número de telefone inválido |
| 107 | Parameter content is too long: %1! | Conteúdo do parâmetro demasiado extenso |
| 108 | Illegal index | Valor de índice inválido |
| 109 | Unknown parameter | Parâmetro desconhecido |
| 110 | File format error | Erro no formato do ficheiro |
| 111 | Section heading is missing | Falta uma secção |
| 200 | The telephone number is present in another active flow | O número de telefone está presente num outro fluxo activo |
| 201 | MessageCount value does not match number of messages | O valor do contador de mensagens não corresponde ao número de mensagens |
| 202 | NP Update Complete received before the agreed porting window | PN_ActualizacaoConcluida recebido antes da janela de portação acordada |
| 203 | Reserved for future use | Reservado uso futuro |
| 204 | EROrderNumber is in use in another flow | NumeroOrdemER está em uso noutra fluxo |
| 205 | Provider ID does not exist | ID do Prestador não existe |
| 206 | Reserved for future use | Reservado uso futuro |
| 207 | Duplicate Confirmation received | Recebida confirmação duplicada |
| 208 | EROrderNumber %1! does not exist | NumeroOrdemER não existe |
| 209 | EROrderNumber belongs to a terminated flow | NumeroOrdemER pertence a um fluxo já terminado |
| 210 | The telephone number is not part of the flow corresponding to the EROrderNumber | O número de telefone não é parte do fluxo correspondente a NumeroOrdemER |
| 211 | EROrderNumber and ProcessID do not match | NumeroOrdemER and IDprocesso não correspondem |
| 212 | Reserved for future use | Reservado uso futuro |
| 213 | OriginatingOrderNumber is in use in another active flow of the same provider | NumeroOrdemPrestador está em uso noutra fluxo activo do mesmo Prestador |
| 214 | The ProcessID does not match the ProcessID in the preceding message from ER | O IDprocesso não corresponde ao IDprocesso na mensagem anterior da ER |
| 215 | The last telephone number is less than the first telephone number | O último número de telefone é inferior ao primeiro número de telefone |
| 216 | Holder or DonorID and telephone number do not match | IDdetentor ou IDdoador and número de telefone não correspondem |
| 217 | HolderID and telephone number do not match | Iddetentor and número de telefone não correspondem |
| 218 | The date and time is before current date and time | A data e hora escolhidos são anteriores ao instante presente |
| 219 | AgreedPortingTime does not match any requested porting time | DataHoraPortacaoAcordada não coincide com nenhuma das janelas acordadas |
| 220 | Reserved for future use | Reservado uso futuro |

| Error code | English Text | Portuguese Text |
|-------------------|---|--|
| 221 | Porting requested outside valid porting window. | Pedido de portabilidade fora da janela de portabilidade válida |
| 222 | Number series must match number series in preceeding message | A série de números deve corresponder à série de números na mensagem anterior (por ex. PN_PedidoPortabilidade) |
| 223 | NRN is not known | NRN não é conhecido |
| 224 | Telephone number not assigned to the donor | Número de telefone não atribuído ao PDo |
| 225 | Reserved for future use | Reservado uso futuro |
| 226 | NP Complete does not match an NP Request - no NP Request found | PN_Conclusao não corresponde a um PN_PedidoPortabilidade - nenhum PN_PedidoPortabilidade encontrado |
| 227 | NP Complete does not match an NP Confirmation - no No Confirmation found | PN_Conclusao não corresponde a um PN_ConfPedidoPortabilidade - nenhum PN_ConfPedidoPortabilidade encontrado |
| 228 | Duplicate NP Complete received | Recebido PN_Conclusao em duplicado |
| 229 | Reserved for future use | Reservado uso futuro |
| 230 | The parameter shall not be present | O parâmetro não pode estar presente |
| 231 | Porting requested earlier than T4 working days ahead | Pedido de portabilidade submetido em tempo inferior a T4 dias úteis, em relação à primeira janela de portabilidade pretendida |
| 232 | Porting requested earlier than T4M working days ahead | Pedido de portabilidade submetido em tempo inferior a T4M dias úteis, em relação à primeira janela de portabilidade pretendida |
| 233 | Porting requested later than T5 working days ahead | Pedido de portabilidade submetido em tempo superior a T5 dias úteis, em relação à primeira janela de portabilidade pretendida |
| 234 | NP Request Confirmation or NP Reject not returned within T3 (to the holding provider) | PN_ConfPedidoPortabilidade ou PN_Rejeicao não respondido dentro de T3 (para o prestador detentor) |
| 235 | Cancellation requested later than T9 working days prior to porting | Cancelamento de pedido de portabilidade requerido após T9 antes da DataHoraPortacaoAcordada |
| 236 | NRN Alteration Cancel requested later than T13 before the NRNAlterationTime | Cancelamento de alteração de NRN requerido após T13 antes da DataHoraAlteracaoNRN |
| 237 | The Provider is not authorized (e.g. to request information) | Prestador não autorizado (ex. a pedir informação) |
| 238 | Coherent requests not received in full within T2 minutes => invalidated | Pedido coerente não totalmente recebido dentro de T2 => rejeição. |
| 239 | Reserved for future use | Reservado uso futuro |
| 240 | Invalid message type | Tipo de mensagem inválido |
| 241 | Error in message flow order | Erro na ordem da mensagem no fluxo |
| 242 | NRN Alteration requested later than T11 working days ahead | Alteração de NRN pedida mais tarde do que T11 dias de trabalho adiante |
| 243 | NRN Alteration requested earlier than T12 working days ahead | Alteração de NRN pedida mais cedo do que T12 dias de trabalho adiante |
| 244 | NRN Alteration requested outside valid porting window | Pedido alteração de NRN fora da janela de portação |
| 245 | Non-existing report type | Tipo de relatório não existente |
| 246 | SequenceNumber is higher than TotalNumberOfRequests | NumeroSequencial é mais elevado do que NumTotalPedidos |
| 247 | Invalid ParentMessageID | IDmensagemAntecessora inválido |

| Error code | English Text | Portuguese Text |
|-------------------|---|--|
| 248 | Invalid SequenceNumber | NumeroSequencial inválido |
| 249 | Invalid ErrorCode | CodigoErro inválido |
| 250 | Telephonenumber not assigned to any provider | Número de telefone não está atribuído a nenhum prestador |
| 251 | Incorrect use of porting windows | Uso incorrecto das janelas de portabilidade |
| 252 | NP Request Confirmation or NP Reject not returned within T3 | PN_ConfPedidoPortabilidade ou PN_Rejeicao não respondido dentro de T3 |
| 253 | Reserved for future use | Reservado uso futuro |
| 254 | PABXMainTelephoneNumber is mandatory for a range of numbers | O NumTelefonePrincipalPPCA é obrigatório para blocos de números |
| 300 | Contract ownership does not match (not applicable to non identified prepaid subscriptions) | Titularidade não corresponde (não aplicável a pré-pagos não identificados) |
| 301 | For future use | Reservado uso futuro |
| 302 | Number inactive at the holding provider | Número inactivo no PD (excluindo periodo de quarentena) |
| 303 | For future use | Reservado uso futuro |
| 304 | Change of telephone number is pending | 305 Pedido de alteração de número pendente |
| 305 | National Defence considerations | Questões de defesa nacional |
| 306 | SIM does not exist | SIM não existe |
| 307 | SIM does not match the MSISDN | SIM não corresponde ao MSISDN |
| 308 | SIM is lost/missing | SIM perdido/extraviado |
| 309 | Number in the storage period | Número em tempo de guarda |
| 310 | Number is not portable | Número não é portátil (PD é obrigado a explicitar no parâmetro Observacoes) |
| 311 | Number related to a Payphone | Número referente a um Posto Público |
| 312 | Number related to a temporary access | Número referente a um aceso temporário |
| 313 | Document identification number not match (not applicable to non identified prepaid subscriptions) | Número do documento de identificação não corresponde (não aplicável a pré-pagos não identificados) |
| 315 | Capacity of the options indicated in the request is exceeded (to be eliminated on 1 st of January of 2010) | Excedida a capacidade nas opções indicadas no pedido (a ser eliminada a 1 de Janeiro de 2010) |
| 400 | Invalid user name | Nome inválido do utilizador |
| 401 | Invalid password | Código de acesso inválido |
| 402 | User account locked due to intruder attempt | Conta bloqueada devido a tentativa de intrusão |
| 403 | Choose another password. You have used it previously | Código de acesso já usado anteriormente. Escolha outro s.f.f. |
| 404 | New password must be written identical twice | O novo código de acesso deve ser escrito duas vezes |
| 405 | User has already logged out | O utilizador está fora do sistema (logged out) |
| 406 | Session ID does not exist | ID de sessão (Session ID) não existe |
| 407 | User session is terminated | Sessão terminada |
| 408 | Message sender identity does not match user identity | O remetente da mensagem não é o mesmo que o utilizador |
| 409 | Message ID %1! does not exist | A mensagem %1 não existe! |
| 410 | Wrong message type | Tipo de mensagem errado |
| 411 | Invalid provider ID | Código de prestador inválido |
| 412 | Parent Message ID does not exist | IDmensagemAntecessora não existe |

| Error code | English Text | Portuguese Text |
|-------------------|--|--|
| 413 | EROrderNumber, ProcessID and ParentMessageID do not match | NumeroOrdemER, IDprocesso, IDmensagemAntecessora não estão relacionados |
| 414 | Original message is already handled | A mensagem original já foi processada |
| 415 | Message type is not valid as a new message or a response in this case. | Tipo de mensagem não é válido como mensagem nova ou resposta neste caso. |
| 416 | User session is expired. Log in once more | A sessão de trabalho expirou. Faça 'login' outra vez. |
| 417 | Message %1! is already sent | A mensagem %1! foi enviada |
| 418 | Invalid ParentMessageID | IDmensagemAntecessora inválido |
| 419 | Invalid ProcessID | IDprocesso inválido |
| 420 | No messages can be sent in this order | Não podem ser enviadas mensagens neste pedido |
| 421 | Invalid date/time format. Must be on the format YYYY-MM-DD hh:mm:ss | Formato de data/hora inválido. Tem que usar: YYYY-MM-DD hh:mm:ss |
| 422 | Error in date. Invalid year %1! | Erro na data. Ano inválido %1! |
| 423 | Error in date. Invalid month %1! | Erro na data. Mês inválido %1! |
| 424 | Error in date. Invalid day %1! | Erro na data. Dia inválido %1! |
| 425 | Error in time. Invalid hour %1! | Erro na hora. Hora inválida %1! |
| 426 | Error in time. Invalid minutes %1! | Erro na hora. Minutos inválidos %1! |
| 427 | Error in time. Invalid seconds %1! | Erro na hora. Segundos inválidos %1! |
| 428 | Sequence number does not match the sequence number of the parent message | NumeroSequencial não coincide com o NumeroSequencial na mensagem antecessora |
| 429 | EROrderNumber does not match the sequence number of the parent message | NumeroOrdemER não coincide com o NumeroOrdemER na mensagem antecessora |
| 430 | Customer information is mandatory for fixed numbers | A informação de cliente é obrigatório para os números fixos |
| 431 | CoordinatedAction is mandatory for fixed numbers | AccaoCoordenada é obrigatório para os números fixos |
| 432 | Reserved for future use | Reservado uso futuro |
| 433 | Invalid total number of requests | Número total de pedidos inválido |
| 434 | Parameter %1!. Format is illegal | Formato ilegal no parâmetro %1! |
| 435 | Logged in user is not holder for telephonenumber %1!. | O utilizador não é o Detentor do número %1!. |
| 436 | Logged in user is not recipient provider for the order. | O utilizador não é o Receptor no pedido |
| 437 | NP Return Cancel must be sent before time of return | PN_Cancelamento do Retorno tem de ser enviado antes da hora de Retorno |
| 438 | Given time is outside the system calendar. | A data/hora escolhida está fora do calendário. |
| 439 | Porting windows must be equal for all messages in a coherent request. | Janelas de portação tem que ser igual em todas as mensagens de um pedido coerente. |
| 440 | NP Cancel Confirmation must be sent within T6 from NP Cancel | PN_ConfCancelamento deve ser enviado em T6 desde o PN_Cancelamento |
| 441 | No authorization. | Não autorizado. |
| 442 | Logout accepted. | Logout aceite. |
| 443 | The user is already logged out. | O utilizador já terminou a sessão. |
| 444 | ER ordernumber does not match preceeding message | NumeroOrdemER não coincide com a mensagem antecessora. |
| 445 | The telephone number is not ported | O número de telefone não está portado. |
| 446 | NP Complete received before porting window | PN_Conclusao recebido antes da janela de portação |

| Error code | English Text | Portuguese Text |
|-------------------|---|---|
| 447 | Duplicate NP Complete received | Recebido PN_Conclusao em duplicado |
| 448 | The telephone number already belongs to requesting provider | O número de telefone já pertence ao prestador receptor |
| 449 | Reserved for future use | Reservado uso futuro |
| 450 | The LastTelephonenumber is within another numberseries in the coherent request. | O TelefoneFinal pertence a outra serie de um pedido coerente |
| 451 | The FirstTelephonenumber is within another numberseries in the coherent request. | O Telefonelnicial pertence a outra serie de um pedido coerente |
| 452 | The number series requested ported must match exactly the number series in quarantine | O bloco de números tem de coincidir com o bloco em quarentena |
| 453 | Reserved for future use | Reservado uso futuro |
| 454 | NP NRN Alteration can not be sent for numbers that are in the quarantine period. | O número de telefone está no periodo de quarentena. Um PN_AlteracaoNRN não pode, por isso, ser enviado. |
| 455 | NewNRN must belong to the requesting provider | O NRNnovo tem de pertencer ao prestador que foi validado |
| 500 | The number series must have only one Holder | O bloco tem de ter um único detentor |
| 501 | All the numbers in a number series must have the same presentNRN | Todos os números de uma gama têm que ter o mesmo NRNactual |
| 600 | Conflict between number series: %1! | Conflicto entre series de números %1! |
| 900 | Internal error %1! | Erro interno %1! |
| 999 | Telephone number is not assigned to any holder | Número de telefone não está atribuido a nenhum prestador |