



Proximus Reference ULL Offer

Raw Copper and Shared Pair

Annex E Planning and Operations Manual

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1 Introduction

1. This Annex describes the Planning and Operations principles related to the provisioning and repair of the Raw Copper and Shared Pair Services.
2. Both Parties will use at any time their best efforts to ensure an adequate level of service provisioning both between the Parties and towards the End-Users concerned.
3. In the event that difficulties or problems arise in respect of Planning and Operations, the Parties will perform all necessary co-operation and consultation with a view to developing appropriate and workable solutions.
4. All relevant technical documentation, User Guides (e.g. for Multi Service Ordering interface) and order forms (i.e. for pre-provisioning equipment) if any can be retrieved from the secured part of the Proximus wholesale website for this offer.

2 Terminology

5. Certified Technician : technician (employee or subcontractor) who, under the responsibility of the Beneficiary, executes the required tasks to technically activate the End-User line requested by the Beneficiary on the Proximus network. The use of a Certified Technician enables the Beneficiary to execute during the same intervention both the technical activation of the End-User line and the activation of services at End-User's premises. This type of technician is only applicable for the Raw Copper Service, not the Shared Pair Service. The exact scope of activities which may be performed by Certified Technicians is described in the Specific Terms and Conditions relating to Certified Technician, available on the secured part of the Proximus wholesale website.
6. Partner Technician : subcontractor of Proximus who, under the responsibility of Proximus, executes the required tasks to technically activate the End-User line requested by the Beneficiary on the Proximus network. This type of technician implies, on the other hand, the signature of a contract between the Beneficiary and one of the subcontractors of Proximus so that the chosen subcontractor executes during the same intervention both the technical activation of the End-User line and the activation of services at End-User's premises. Such contract will notably cover the terms and conditions agreed between the subcontractor and the Beneficiary regarding the planning and booking of the resource capacity and appointment. The list of the possible subcontractors is documented in the "MSO User Guide" and can be requested by the Beneficiary to its Proximus SPOC in case of interest.
7. Proximus Technician : technician or splicer (employee or subcontractor) who, under the responsibility of Proximus, executes the required tasks to technically activate the End-User line requested by the Beneficiary on the Proximus network.
8. "Small Network Adaptations (SNA)" refer to works executed by splicers during the connection of a new End-User line (valid in repair and provisioning process (installation method "with customer visit splicing included")), while "Splicing Interventions" refer to works executed by splicers during the repair of an existing and active End-User line.
9. Useless End-User visit (provisioning and repair) occurs when the Proximus or Partner Technician is not able to perform his intervention further to Beneficiary's request. A useless End-User visit can happen for the following reasons:
 - End-User absent,
 - End-User absent after call,
 - End-User objects to installation or repair,
 - Cancel requested by End-User,
 - End-User not ready for installation or repair, site not ready,
 - Contact number of End-User incorrect, End-User cannot be contacted after absence,
 - SNA with additional work required on private domain (while order submitted with "Cost estimate not allowed" indication),
 - Wrong installation address.
10. Multiple useless End-User visit (provisioning and repair) occurs when for a third time the Proximus or Partner Technician is not able to perform his intervention further to Beneficiary's request. A useless End-User visit can happen for the following reasons:
 - End-User absent,

- End-User absent after call,
- End-User objects to installation or repair,
- Cancel requested by End-User,
- End-User not ready for installation or repair, site not ready,
- Contact number of End-User incorrect, End-User cannot be contacted after absence,
- SNA with additional work required on private domain (while order submitted with "Cost estimate not allowed" indication),
- Wrong installation address.

3 Acronyms

CHC	Customer Help Center
CSD	Customer Support Desk
CWS	Carrier and Wholesale Solutions
DARE	Diagnosis Analysis and Recovery Engine
FUT	Friendly User Testing
GUI	Graphical User Interface
ISDN	Integrated Service Digital Network
KLIM	Kabel- en Leidingen Informatie Meldpunt
KLIP	Kabel- en Leidingen Informatie Portaal
KVD	Street Cabinet (Kabel Verdelers in Dutch)
LDC	Local Distribution Center
LEX	Local Exchange
MDF	Main Distribution Frame
MSO	Multi Service Ordering
NTP	Network Termination Point
OC	Order Closed
OLO	Other Licensed Operator
OSIRIS	Platform of Brussels Mobility that is dedicated to road worksite coordination in the Brussels-Capital Region
POWALCO	Plateforme Wallonne de Coordination de Chantier
PSTN	Public Switched Telephone Network
QTM	Quality Team Meeting
RGIE/AREI	Règlement Général sur les Installations Electriques / Algemeen Reglement op de Elektrische Installaties
SNA	Small Network Adaptations

SOA	Service Oriented Architecture
SOR	Statement Of Requirements
SPOC	Single Point Of Contact
TEX	Technically Executed
TOC	Technical Order Confirmation
TSI	Technical Situation
ULL	Unbundled Local Loop
XSD	XML Schema Definition

4 Exchange of information

11. This chapter includes some communication guidelines in order to ensure a good interchange of information and to define an effective communication channel that focuses on both improving the comprehension and execution of the processes.

4.1 Points of contact

12. A Key Account Manager acting as Single Point of Contact (SPOC) to Proximus for the Beneficiary will be in charge of all matters regarding the day-to-day management of the present offer.
13. An escalation matrix, documented on the secured part of the Proximus wholesale website, may be used by the Beneficiary in case of unresolved issue requiring the escalation to a higher level than the day-to-day Proximus representatives.

4.2 Preliminary Exchange of Information for the initial setting up

14. Without prejudice to what is stated above, it is recommended that Beneficiary provides a Statement of Requirements (SOR) to Proximus as early as possible in any discussions between Beneficiary and Proximus. The SOR is sent by registered mail to the SPOC of Proximus. After the receipt of the SOR, Proximus shall notify to Beneficiary its observations, if any, concerning the SOR. In particular, when appropriate, Proximus may request additional information to complete the information contained in the SOR. For more information on the SOR, reference is made to Appendix A of this document.

4.3 Quality Team Meeting

15. The "Quality Team Meeting" or "QTM" is a meeting between both Parties to supervise, discuss and examine at a general level the technical and operational application of this offer, in particular, the implementation of the respective obligations of the Parties, as described in this offer.
16. The QTM targets to be organised on a quarterly basis at Beneficiary's request and best convenience. Each Party is entitled to call additional meetings within reasonable notice if judged reasonably useful. Each Party will be represented at the QTM by its SPOC accompanied by any staff as deemed necessary by the relevant Party.
17. In addition to the QTM, the Parties will be allowed to request for the set-up of any other bilateral working group in charge of discussing and agreeing on any technical or operational issues, including more specialized members on the specific topic.

5 Pre-Provisioning of infrastructure

5.1 Ordering

18. Orders are related to Beneficiary dedicated equipment at the Proximus LEXs and LDCs. This equipment consists in Beneficiary Horizontal Blocks and associated Tie Cabling and Splitter Cards. The technical specifications of the ordered infrastructure are described in Annex C. All installations are done by the technicians or subcontractors of Proximus. Forecasts and Ordering are done based on the order units as defined in Annex H.
19. The Beneficiary is recommended to provide Proximus with reasonable and accurate forecasts on Beneficiary Blocks, Tie Cables and Splitter Cards in order to ensure that the planning of resources can be done in the best interest of the Beneficiary. The submission of forecasts by the Beneficiary determines the conditions of delivery time: in case no forecasts are provided, Proximus will deliver services on a best effort basis. Note that in case Colocation cannot be delivered and therefore forecasting and implementation cannot be implemented, the forecast system described below will not be applicable.
20. Forecasts if any and firm orders shall be done through the use of the specific templates provided in Appendix D of this document and on the Proximus wholesale secured website. Templates will be considered as valid only when they are properly completed. In case data is missing or is not correct, the forecast or order will be rejected. In the latter case, Proximus will indicate the reasons of rejection on the template.
21. For the sake of clarity, it is confirmed that for all matters related to the forecasting process, an agreement between the Parties is only binding for Proximus if it is confirmed in writing by the SPOC of Proximus within 5 working days. If there is no reply of the SPOC within this period, the confirmation is considered given.
22. Irrespective of the terms and conditions stated below, Proximus reserves the right to reject forecasts if the volumes requested by the Beneficiary are not in line with reasonable market demands, this is for example a nation-wide ordering spread over several months instead of a one-shot ordering once a year. In the event of such a rejection, Proximus will provide the Beneficiary with the reasons for the rejection and the Parties will need to enter into a good faith discussion for finding a solution to deal with the difficulty that has arisen.

5.2 Prerequisites

23. The Beneficiary can order its blocks through a firm order. A firm order for infrastructure is done for each LEX/LDC. The order form can be downloaded from the Proximus wholesale secured website.
24. A firm order consists of the requested number of order units (see Appendix D) and this for each LEX/LDC. Together with the firm order, the Beneficiary includes the date when he wants the Blocks and associated Tie Cabling to be ready.
25. Having approved a colocation facility is a prerequisite for a Beneficiary to order Horizontal Blocks or Splitter Cards at that Colocation. A Colocation facility is approved according to the terms and conditions of the Colocation documents on the Proximus wholesale secured website.
26. The delivery time of forecasted firm orders for Blocks and Tie Cabling and/or Splitter Cards is 15 working days in cases where sufficient place in the cable trays at the ordered site is available. When construction works are needed the delivery time is 40 working days. The Beneficiary indicates the date he wants the infrastructure to be ready.
27. In very exceptional situations, the theoretic delivery times above may be significantly exceeded. Depending on the situation at the Local Exchange or LDC of Proximus, an extension of the MDF may be of an enormous

extent. Significant delays may also be experienced in case of periods of large demands at once that could not be foreseen and in situations of *force majeure* (e.g. lightning or any other natural disasters causing damage to the Proximus network).

28. In case of conflict between the Beneficiary's documentation and the Proximus documentation regarding the position numbers on the Blocks, Beneficiary can request a reconciliation of its information with the actual situation on the Proximus MDF. For this purpose Beneficiary can take contact with its SPOC. All costs incurred by Proximus to answer such a request will be charged to the Beneficiary. The costs are only due by the Beneficiary if its documentation was incorrect, whereas the faults are not related to a prior incorrect communication of information by Proximus.
29. Proximus will confirm the receipt of every firm order within 4 working days. Within 2 weeks after receiving the firm order Proximus will communicate by email the planned installation date of the ordered Blocks and Tie Cables. When the installation of the Blocks and Tie Cabling is complete, the Beneficiary will receive documentation on the position of its blocks on the MDF and on the references of the positions on the blocks. This information is mandatory to communicate together with each order for a specific loop.

5.3 Forecasting of orders for pre-provisioning of infrastructure

30. The table below includes the specific variables applicable to the forecasting of equipment for pre-provisioning:

Forecasting Specifications			
Forecasted period	6 months		
Submission Recurrence	Monthly		
Submission Content	Total order units per type (see order form)		
Granularity of unit	1		
Forecasted unit	Order units as further defined in Appendix D		
Installation fee "I"	Average activation fee for Raw Copper/Shared Pair		
Effective % charged "E"	100 %		
Deviations	Lower deviation limit	Upper deviation limit	Level of requested detail
$\delta_{\max} =$	-20%	20%	Sub area/Area

6 Ordering of End-User connections - Raw Copper or Shared Pair

6.1 Introduction & Generalities

31. A commercial contract is signed between an End-User and the Beneficiary.
32. Pursuant to the General Terms and Conditions of the present offer, the Beneficiary is entitled to start the order entry via the MSO SOA ordering interface or via the MSO GUI ordering interface as described in the Annex "Business & Operational Support Systems for BRUO and Bitstream" of the present reference offer.
33. Prior to be allowed to use the MSO SOA interface, the Beneficiary has to be compliant with the security requirements defined in the "Security Addendum". This document is available on the secured part of the Proximus wholesale website.
34. To make use of the MSO GUI interface, each employee of the Beneficiary allowed to interact with Proximus Wholesale first needs to register online as described on the Proximus wholesale website.
35. When the initial order is encoded in the MSO GUI, the Beneficiary has to indicate the email address(es) to be used for sending notifications regarding this order throughout its whole lifecycle up to its final status.
36. The order entry process of a specific End-User line covers the activities of both the Beneficiary and Proximus, between the submission of an order to Proximus by the Beneficiary until the confirmation (Technical Order Confirmation message) or the discard of this order to the Beneficiary by Proximus.
37. The order entry process can be split up in 4 main building blocks:
 - Pre-checks including the location, active installation and network feasibility checks, which allow the Beneficiary to get a clear view on the address, installation and Proximus network configuration prior to submitting an End-User line order to Proximus.
 - Order entry including the product options and specifications requested by the Beneficiary.
 - Technical Situation Allocation including the minimum installation method required to proceed further with the request of the Beneficiary.
 - Appointment (date + timeslot) booking.
38. For detailed information on the order entry process, reference is made to the "MSO User Guide" document stored on the secured part of the Proximus wholesale website.

6.2 Pre-Checks

39. During the pre-checks phase, the Beneficiary will be able to perform the following checks:

- **Location Check**: determination and validation of the installation address. It is mandatory for Provide, Change Operator and Move orders.
- **Active Installation Check**: providing information whether an active service is present or not towards the Beneficiary for the given address, to help select the correct detailed address. This step will allow confirming or changing the detailed address.
- **Change of the detailed address**: adding, changing or removing address details (i.e. box, floor, apartment or block number) linked to the address.
- **Network Feasibility Check**: providing network and product information towards the Beneficiary for the given address, including technical information needed by the Beneficiary to have an overview of the potential paths for delivering the service to the End-User.

40. All pre-checks results depend on the user profiles (i.e. right to get some network / product information).

41. After finalization of the mandatory step (if any) in the pre-check phase, the Beneficiary has the possibility to go for ordering.

42. For further details on the pre-checks phase, reference is made to the “MSO User Guide” documented on the secured part of the Proximus wholesale website.

6.3 Order Action Types

43. An order action on a Raw Copper Loop or a Shared Pair or an action on the order itself can be:

a) **Created by the Beneficiary**

- i. Provide: request for activation of a new product or service including the pre-checks.
- ii. Cease: request for de-activation of an existing product or service.
- iii. Change Operator: request for activation of a new product or service, which requires a cease of the End-User’s active service/installation with another Beneficiary (Proximus included).
- iv. Change: request for a modification of an active service within the same root product.
- v. Migrate: request for modification of an active product or service to a new root product.
- vi. Move: request for move of an active without voice product or service to a new installation address. Within the move a change/migrate of the product or service is allowed.
- vii. Amend Due Date: request to update the appointment date and timeslot of a pending order in the provisioning phase. The Amend Due Date is not allowed before the Technical Order Confirmation (TOC) and after the Technically Executed (TEX) messages.
 1. 4 types of Amend Due Date can be used by the Beneficiary:
 - a. Standard Amend Due Date.
 - b. Rush Amend Due Date: see conditions at the end of this section.
 - c. Escalation Amend Due Date: see conditions at the end of this section.
 - d. Plan Not Received Amend Due Date: accepted only if the planned installation method “with customer visit splicing included” can be

rescheduled sooner when plans have been received by Proximus after the prior "Street plans not received" message.

2. 4 types of Amend Due Date weight are possible:
 - a. Light: applicable for the Standard Amend Due Date when the request is performed at least before 12 p.m. of the working day preceding the Appointment Date.
 - b. Heavy: applicable for the Standard Amend Due Date when the request is performed after 12 p.m. of the working day preceding the Appointment Date.
 - c. Free: applicable for the Plan Not Received Amend Due Date and Escalation or Standard Amend Due Date following an appointment missed by Proximus.
 - d. Rush: applicable for the Rush Amend Due Date as described in the conditions at the end of this section.
- viii. Amend Technical Remark: request to update the remark text for the technician to facilitate the installation at End-User's premises of a pending order in the provisioning phase.
- ix. Amend End-User Contact: request to update the End-User contact name and contact phone number on site (preferably a mobile number) of a pending order in the provisioning phase.
- x. Amend Product: request to update the product options and/or profile of a pending order in the provisioning phase.
- xi. Upgrade Installation Method: request to upgrade the minimum installation method before the Technical Order Confirmation. Such action is allowed on "provide-like" and "change" orders (when applicable).
- xii. Cancel: request for cancellation of a started order during the order entry or the provisioning phase, which is allowed until the Technically Executed status. Two types of Cancel weight are possible: Light and Heavy.

b) Created by Proximus (due to an action of another Beneficiary or the End-User)

- i. An auto-order is an order automatically created by Proximus and sent to the Beneficiary as a result of another order impacting the active product or service of this Beneficiary for the same End-User at the same installation address. The following types of auto-order are possible: auto-move, auto-cease (Cease Change Operator) and auto-change.

For detailed information on the notion of root product, reference is made to the "Product Modelling User Guide" document stored on the secured part of the Proximus wholesale website. For further details on the order entry process, reference is made to the "MSO User Guide" also documented on the secured part of the Proximus wholesale website.

Rush Amend Due Date : conditions

44. "Rush Amend Due Date" is an amend due date type requesting the delivery of a new line in minimum 3 working days and maximum 5 working days (subject to the conditions of the points below).
45. "Rush Amend Due Date" is subject to all conditions of regular provisioning, including the presence of the required connectivity to the Proximus network before ordering.
46. "Rush Amend Due Date" is only possible on orders with an appointment date in the future.
47. "Rush Amend Due Date" will be always during working hours.
48. "Rush Amend Due Date" is offered as a service when resources can be found to perform the necessary tasks. In case the Proximus Technician cannot perform the works in the requested timeframe, Proximus will continue the provisioning as a default order and inform the Beneficiary.

49. Any delay for a “Rush Amend Due Date” put in place by Proximus, for instance caused by the absence of the End-User on the Beneficiary requested date, will entitle Proximus to charge the Beneficiary with 50% of the “Rush Amend Due Date” fee. In any case the process will continue and a new Beneficiary requested date will be settled in accordance with the default procedures.
50. The Beneficiary is able to request a rush order by the use of an “amend due date - type Rush” through the MSO interface (GUI or SOA). If the “Rush Amend Due Date” has been accepted, Proximus will provide the Beneficiary with the new appointment date in the “amend due date confirmation message”. If the rush order is not possible, the “Rush amend due date” will be discarded and the initial appointment date will be kept.
51. Per line for which “Rush Amend Due Date” is requested and offered, the installation fee is doubled.
52. Per line for which “Rush Amend Due Date” is requested but cannot be achieved by Proximus for a reason attributable to the latter, the standard installation fee is billed.
53. “Rush Amend Due Date” requested for “overrun orders” will be discarded.

Escalation Amend Due Date : conditions

54. An “Escalation Amend Due Date” can be requested in case of a Proximus fault (e.g. Missed Appointment by a Proximus Technician).
55. “Escalation Amend Due Date” is only possible on orders with an appointment date in the future.
56. Escalations requested for “overrun orders” will be discarded.
57. An escalation order has no additional cost.

6.4 Types of Messages

58. During the order entry and provisioning processes, the Beneficiary will receive various messages. Depending on the type of order and/or the type/number of messages, the order entry can be temporarily put on hold or stopped. Three types of messages are possible:
 - Message for Action: message to ask the Beneficiary to realize a precise action on a pending order to re-start the flow.
 - Message for Information: message sent to communicate intermediate or final information to the Beneficiary.
 - Discard Message: message to inform the Beneficiary that the order entry or provisioning is stopped.

The above types of messages are further explained below and described in detail in the “Message versus action” sheet stored on the secured part of the Proximus wholesale website.

6.5 Message for Action

59. A Message for Action can be sent by Proximus during the order entry or the provisioning phase to inform that the order is temporarily put on hold as an action is required from the Beneficiary to re-start the flow (e.g. via an Appointment Booking after the “Report Work Orders” message).

60. During the order entry the number of Messages for Action, due to an invalid input provided by the Beneficiary, will be limited to 3.
61. A logic of auto-cancel after 12 calendar days will be applicable.
62. For complete information about all possible Messages for Action, reference is made to the "MSO User Guide" and the "Message versus action" sheet, which can be retrieved from the secured part of the Proximus wholesale website.

6.6 Message for Information

63. A Message for Information can be sent by Proximus to inform the Beneficiary on the status of an order and/or on any event occurring on an order. The following Messages for Information are notably distinguished:
- Technical Order Confirmation (TOC): the TOC message is sent to the Beneficiary once the appointment is confirmed and contains information on the installation (service identifier, installation address, appointment date, installation method, ...).
 - Due Date Confirmation: Proximus will use the notification with Subject "Due Date Confirmation" to report the fact that the Due Date of an order of type AUTO has been changed.
 - OLO-tic (information on orders with End-User visit): the OLO-tic is sent after an End-User visit. Based on the situation encountered by the Proximus or Partner Technician, a specific template is filled in to give evidence of the visit and provide useful information. The possibilities are:
 - i. Negative closure during IBK ("Ik Bel de Klant" call),
 - ii. Negative closure at End-User's premises,
 - iii. Positive closure.The OLO-tic is not applicable for work orders performed by a Certified Technician.
 - Technically Executed (TEX): message to indicate that the service is technically activated or deactivated, whether after a remote configuration in case of the installation method "remote" or after a technician intervention. In the latter case, the technician has performed a positive closure of the work order(s). However, administrative tasks have still to be performed in the Proximus systems at this stage of the order lifecycle. The TEX message indicates an intermediate status of the order.
 - Order Closed (OC): message to indicate that all the technical and administrative tasks have been successfully performed. The order is no longer pending in the Proximus systems. This message indicates the final status of the order.
 - Temporarily Impossible: message to inform that the delivery is temporarily impossible. Whenever Proximus has additional information (e.g. planned dates, reason of temporarily impossible) it will be provided in the message towards the Beneficiary. As a result of a message "temporarily impossible" 2 options are possible:
 - The order becomes technically possible: a Message for Action to perform a new appointment booking will be triggered towards the Beneficiary;
 - The order finally becomes technically impossible: a Discard message is triggered towards the Beneficiary.
 - Amend Confirmation with the reason "Due date rescheduled on OLO request by call / e-mail": message triggered when the Beneficiary has requested towards Proximus to perform a manual appointment rebooking instead of using the amend functionalities.

- Installation Address Changed: message to notify a change in the installation address. This message will contain the old and the updated address. The update of the installation address can occur at 2 different stages during the order lifecycle:
 - When the technical services have performed a manual TSI (Technical Situation) assignment (e.g. a “fictitious address” request);
 - When the technician is on site and requests the technical services to change the installation address because it doesn’t exactly match the actual installation address. This is only possible if there is no impact on the main address.
- NP EXEC Trigger: message to inform the Beneficiary that he can perform the EXEC for a Number Portability request.
- Technical Situation Reallocation: message to indicate that the Due Date of an order has been successfully changed after a new allocated technical situation.
- Street Plans received: message to inform the Beneficiary that the plans are available at Proximus for orders with the installation method “with customer visit splicing included”.

64. For complete information about all possible Messages for Information, reference is made to the “MSO User Guide” and the “Message versus action” sheet which can be retrieved from the secured part of the Proximus wholesale website.

6.7 Discard or Cancel Confirmation Message

65. Similarly to the Order Closed message, a Discard or a Cancel Confirmation message indicates a final status of an order (Discarded or Cancelled). The Discard or the Cancel Confirmation message informs the Beneficiary that the order entry or provisioning is stopped, which means that the order has not been executed. The Discard message is for example sent when it is not possible for Proximus to succeed in providing the service based on the existing infrastructure or when the Beneficiary has submitted an incorrect order. The Discard message contains the appropriate discard reason.
66. Proximus reserves the right to refuse orders if the volumes requested by the Beneficiary are not in line with reasonable market demands. In the event of such a refusal, Proximus will provide the Beneficiary with the reasons for the refusal and the Parties will enter into a good faith discussion for finding a solution to deal with the difficulty that has arisen.

6.8 Order Status Check

67. The Beneficiary is able to perform an order status check in the Order status viewer in the MSO GUI.
68. When an order is subject to a new order status, the message related to the order status change will contain the new order status.
69. The exhaustive list of the order statuses is present in the “MSO User Guide” which can be retrieved from the secured part of the Proximus wholesale website.

6.9 Functionalities during the Order Entry

70. The Beneficiary is entitled to provide different values which will trigger a different handling of the order in the ordering and/or provisioning flows. The values can be:

- Fictitious address such as antennas or event lines.
- Manual TSI request towards Proximus at a fixed price, e.g. in case the End-User's building is served by multiple copper introduction cables as indicated in the pre-checks phase.
- Renovated House to inform Proximus that the introduction cable is no longer suitable and that an installation method "with customer visit splicing included" is required.
- New Building to inform Proximus that the introduction cable is not present and that an installation method "with customer visit splicing included" is required.
- Project based ordering: an agreement is made between the Beneficiary and Proximus to start a specific project for which the terms and conditions (including the pricing) have been discussed and concluded on beforehand. Three types can be distinguished: project based ordering on Proximus request, project based ordering on Beneficiary request and mass migrations. Reference is made to the Annex K of the present reference offer for further details on the project based ordering approach used in the context of customized and mass migrations.
- SNA (Small Network Adaptations): in case the Beneficiary indicates as input "not allowed" and the minimum installation method required to perform the activation of the End-User line is "with customer visit splicing included", the order will be discarded.
- Cost estimate: in case work by splicers on the private domain is required, a quotation will be performed and invoiced towards the Beneficiary. If the latter indicates as input "not allowed" the order will be discarded and the quotation will not be performed nor invoiced.
- NTP (Network Termination Point): in case the Beneficiary indicates as input "missing" (the NTP being not present or no longer usable), a customer visit (splicing included or not), entailing the placement and labelling of the NTP, will be required to perform the activation of the End-User line.
- Contact data: the Beneficiary is able to use 4 types of contact data, i.e. the End-User contact (mandatory in all "provide-like" orders and aiming at providing a contact point at End-User side to be used by the technician before the visit), the "SARA SMS" (optional and aiming at requesting Proximus to inform the End-User of the appointment by use of an SMS), the Beneficiary contact (optional and aiming at providing the technician with a contact point at Beneficiary side) and the Beneficiary ISP (optional and aiming at providing the technician with the brand name of the ISP the order is placed for).
- NP Synchro: to enable synchronisation of a fixed Number Portability request towards Proximus and a Provide or Change Operator order.

71. For detailed information about these possible values, reference is made to the "MSO User Guide" which can be retrieved from the secured part of the Proximus wholesale website. When applicable, reference is also made to the Annex "Pricing and Compensations".

7 Provisioning of a Raw Copper Loop or a Shared Pair

7.1 Introduction & Generalities

72. The provisioning process of a specific End-User line covers the activities of both the Beneficiary and Proximus as from the Technical Order Confirmation (TOC) message sent by Proximus to the Beneficiary until the closure of the order as communicated by Proximus through the Order Closed (OC) message.
73. After the Technical Order Confirmation message :
- a. The following **field interventions** will be performed by a Proximus or Partner or Certified Technician, when allowed and requested by the Beneficiary through MSO (GUI or SOA):
 - i. The realization of the necessary preparatory works in the LEX/LDC and/or KVD,
 - ii. The installation at End-User's premises,
 - iii. The end-to-end testing of the End-User line.
 - b. The following **remote interventions** will be performed by Proximus:
 - i. The realization of the necessary documentation to track that the End-User line of the Beneficiary has been provisioned,
 - ii. The remote configuration of the End-User line,
 - iii. After the Technical Execution of the order (TEX message), the sending of an Order Closed message.

7.2 Installation Methods (IM)

74. After the order entry validation, Proximus will return to the Beneficiary the minimum installation method required to perform the activation of the End-User line when no installation method had been given by the Beneficiary as initial input.
75. A downgrade of the installation method (by Proximus or by the Beneficiary) is not allowed.
76. Four (4) installations methods are possible in MSO in function of the successful technical situation allocation and work order creation:
- Remote (in principle, not applicable to an unbundled circuit)
 - i. No work to perform by a Technician in the field
 - ii. No work to perform by a Technician at End-User's premises
 - iii. Remote configuration to perform
 - iv. Upgrade of the installation method is possible
 - Without Customer Visit
 - i. Work to perform by a Technician in the field
 - ii. No work to perform by a Technician at End-User's premises
 - iii. Remote configuration to perform
 - iv. Upgrade of the installation method is possible
 - With Customer Visit
 - i. Work to perform by a Technician in the field
 - ii. Work to perform by a Technician at End-User's premises
 - iii. Remote configuration to perform
 - iv. Upgrade of the installation method is not possible

- v. Can be requested upfront in the order
- With Customer Visit Splicing included (i.e. including Small Network Adaptations)
 - i. Work to perform by a Splicing team in the field
 - ii. Work to perform by a Splicing team at End-User's premises
 - iii. Remote configuration to perform
 - iv. Upgrade of the installation method is not possible

Small Network Adaptations

77. Small Network Adaptations (SNA) are splicing works usually performed during provisioning activities in case no suitable Introduction Cable is available. An Introduction Cable, also referred to as drop wire, is defined as the physical part of an End-User line that connects the Distribution Cable to the End-User's Network Termination Point (NTP). The unavailability of a suitable Introduction Cable means that an Introduction Cable is not present or is not usable as such due to e.g. damage caused by the End-User or a third party (whether at introduction or distribution level), humidity, renovation works by the End-User, ...
78. Proximus will perform Small Network Adaptations by means of (i) installing a new Introduction Cable (i.e. connecting an NTP in the End-User's building/Living Unit to a pair in the nearest possible Distribution Cable in the street) or (ii) intervening on an existing Introduction Cable and/or Distribution Pair. In case Small Network Adaptations are needed, the provisioning of a Raw Copper Loop will include one of the following solutions:
- Realization of a new introduction in the building/Living Unit of the Beneficiary's End-User;
 - Renewal of the introduction in the building/Living Unit of the Beneficiary's End-User;
 - Splicing additional pairs in the existing introduction splice of the building/Living Unit of the Beneficiary's End-User or any other splicing work (splice adaptation, bridge splice, transition splice, ...) to ensure correct provisioning for this End-User;
 - Moving the existing introduction from an existing Distribution Cable to another existing Distribution Cable.
79. Reference is made to the Appendix F for further details on these 4 types of solution.
80. Proximus will provide an Introduction Cable with a maximum length of 100 meters on the public domain to make the connection between the Distribution Cable and the Network Termination Point. In case an Introduction Cable with a length more than 100 meters has to be provided or in case of a public road with a carriageway, Proximus will charge the Beneficiary the relevant price for the extra work. On the private domain, duct and trench must be provided by the Beneficiary.
81. SNA require that a free duct or an open trench is available on the private domain. If neither a free duct nor an open trench is available on the private domain, Proximus can be asked to also perform this part of the work on condition that the Beneficiary agrees to pay the price for that part of the work performed by Proximus. This price will be determined on a case-by-case basis according to a cost estimate if the Beneficiary allows it.
82. In case no more free pairs are available in the Distribution Network, the request for a Raw Copper Loop will be discarded. The construction or trenching of new distribution cabling, new street cabinets or new feeder cabling is outside the scope of the present offer.
83. The Belgian Regions created platforms (e.g. OSIRIS in Brussels, POWALCO in Wallonia) where, among others, the splicing works to be executed by Proximus (employees or subcontractors) on the public domain must be registered. The main goal of these platforms is to coordinate the works of the multiple utility companies on the public domain as well as to manage the authorisation process and the work acceptance with municipalities. Such process imposed by the Public Authorities can extend the time needed for the provisioning of the End-User lines.

84. The provisioning time can also be extended because Proximus is legally obliged to get via the KLIM or KLIP portal the plans of the other utility companies before starting the splicing works. For example, in virtue of the article 192/2 of the RGIE/AREI and in order to ensure the security of Proximus splicers and other individuals, Proximus splicers must consult the plans of the underground electric cables installed by the other utility companies before carrying out any new connection with splicing works. Street plan request obligations are also applicable for the underground cables of any other relevant utility company (e.g. gas) in virtue of sector specific legislation.
85. SNA are always performed by Proximus or a Third Party working for Proximus.
86. The Beneficiary has the possibility to indicate as input in the order entry "SNA not allowed". If "SNA not allowed" is flagged in the order, Proximus will discard the order. The use by the Beneficiary in its order of the SNA indicator "not allowed" is not compatible with specific indications on the Introduction Cable by means of the values "New Building", "Renovated House" or "Manual TSI".
87. In case an SNA is detected during provisioning, Proximus will send to the Beneficiary a Message for Action (with subject "on HOLD") mentioning that an additional intervention is needed. If the Beneficiary answers that message with the amend functionality, the new minimum installation method required "with customer visit splicing included" will be mentioned in the Proximus answer with the related work order(s). The Beneficiary still has at that moment of the "Report Work Orders" Message for Action the possibility to cancel the order.
88. To mitigate the number of SNAs, Proximus has implemented in its systems an SNA avoidance logic aiming at converting an order with the minimum installation method required "with customer visit splicing included" into a single technician or remote installation method thanks to a rule making the link between two separate orders (an order with the action "Provide" and a pending cease order) on a same TSI (when applicable): the provide order will take over the TSI of the pending cease order taking into account the appointment date of both orders.

7.3 Technician Types

89. The Beneficiary is able to select one of the 3 following technician types when the installation method requires an intervention to be performed by a technician:
- Proximus Technician
 - Partner Technician: the selection of this type of technician requires on beforehand the conclusion of a contract between the Beneficiary and one of the possible Proximus subcontractors. The list of the possible subcontractors is documented in the "MSO User Guide" and can be requested by the Beneficiary to its Proximus SPOC.
 - Certified Technician (CT): for detailed information, reference is made to the Certified Technician "Specific Terms and Conditions" and "User Guide" as documented on the secured part of the Proximus wholesale website.
90. When returning the work order(s) towards the Beneficiary, the technician type(s) that are allowed to be selected will be added per work order. For each work order describing technician tasks a technician type is required as input.
91. A change of technician type can be needed due a change of the allocated TSI resulting in the creation of (a) new work order(s).

7.4 End-User Appointment negotiation and (re)booking

92. Based on the input of his End-User ("appointment negotiation"), the Beneficiary is requested to perform date and timeslot booking for each work order to be performed.
93. The Beneficiary is responsible to make sure the appointment date fits his End-User well and to reschedule it if needed. Proximus will only contact the End-User approximately 30 minutes before the intervention to confirm that the technician (or splicing team) is coming (in case of Proximus & Partner Technician).
94. Through the optional "SARA SMS" functionality, the Beneficiary has the possibility to request Proximus to send an SMS to the End-User during the provisioning process in order to inform the latter of the appointment.
95. For more details about the date/timeslot negotiation and booking, reference is made to the "MSO User Guide" which can be retrieved from the secured part of the Proximus wholesale website.

8 Ordering and Provisioning Process flows

96. Reference is made to the Process Flows describing the Ordering and Provisioning Business Processes of the BRUO offer, which can be retrieved from the secured part of the Proximus wholesale website in the section "Operational Documentation" of the Regulated Services menu.

9 Forecasting of orders

97. The forecasted volumes (provide, change operator, change, migrate and move included) are established by sub-area/area and ventilated per Installation Method ("without customer visit", "with customer visit" or "with customer visit splicing included"), all products (Bitstream and BRUO) combined. Orders with the technician type "Certified Technician" or "Partner Technician" are not taken into account in the forecast.
98. The forecasting of orders shall be done in conformance with the procedure as described in Appendix B.

10 Incident Management and Repair

10.1 Incident Management and Repair for Raw Copper Services

99. This chapter describes the responsibilities of Proximus and the Beneficiary in incident management and repair for Raw Copper Services.

10.1.1 Point of Entry for reporting an incident

100. For the reporting of incidents, the Beneficiary will contact Proximus :
- Via the Incident & Repair Management Platform enabling to create a repair case;
 - By call (0800 93122) or by e-mail (080093122@proximus.com) should the Incident & Repair Management Platform not be up and running.

10.1.2 Incident reporting on Raw Copper

101. It is always the Beneficiary that
- 1) reports incidents in the raw copper loop, including Tie Cabling;
 - 2) receives and handles own End-Users' incident reports before reporting some of those incidents to Proximus. Proximus will not take calls directly coming from End-Users of the Beneficiary for incidents in the raw copper loop.

10.1.3 Beneficiary's liabilities in connection with incident reporting

102. For the reporting of incidents, the Beneficiary will contact Proximus :
- via the Incident & Repair Management Platform, as standard solution or,
 - by phone or e-mail, as back-up solution. The phone number to be used by the Beneficiary is 0800/93122 while the e-mail address is 080093122@proximus.com. The Beneficiary will send to this e-mail address an Excel file with the description of the incident.
103. Before creating a repair case through the Proximus Incident & Repair Management Platform, the Beneficiary is required to perform first his own measurements on the line to ensure that the incident is attributable to Proximus. For a Raw Copper Loop, the diagnose tasks and pre-troubleshooting functionalities (DARE) in the Proximus Incident & Repair Management Platform will provide the Beneficiary with information (if any) such as a potential network incident impacting the circuit or a repetitive repair on the same circuit.
104. The Beneficiary is responsible for transmitting all necessary information requested by Proximus. The following information will be included in the repair case (or in the Excel file if applicable) based on the forms available in the Incident & Repair Management Platform :
- Service identifier
 - Technical contact points and phone numbers of the Beneficiary
 - Contact point, phone number, language and availability of the End-User.
 - Incident description (is service fully interrupted or degraded or any other relevant technical details)

105. In the following cases the repair case creation will be rejected:
- Diagnose task is invalid
 - Information in the repair case (or in the Excel file if applicable) is incomplete
 - More than one case is sent in the incident report
106. In addition, the Beneficiary will possibly communicate to Proximus:
- Measurements from equipment on the Beneficiary's side that can help solve the incident (if available).
 - Installation address of the line (optional if the intake is done via the Incident & Repair Management Platform).
 - Any information (not necessarily test results) that shows that the Beneficiary has taken the necessary steps to ensure that the repair case (or Excel file) is submitted in good faith to Proximus.
107. If the Beneficiary wishes to provide Proximus with some results/conclusions of his own tests, he can provide the following information (in such case, communication of point a) is mandatory, other points are not mandatory):

a) Conclusion (structured field providing the Beneficiary's conclusion resulting from his own tests; drop list with only one choice possible):

- Line opened up to NTP
 - Line opened up to main intro *
 - Line opened up to LEX
 - Line in short circuit up to NTP
 - Line in short circuit up to main intro *
 - Line in short circuit up to LEX
 - Stub up to NTP
 - Stub up to main intro *
 - Stub up to LEX
- * only in case of apartment*

b) Length* of line opened/short circuit/stub (location): "xxx" m

*** in meters**

c) Parameters:

- Resistance : "value" + "unity" + "between" *
 - Capacity : "value" + "unity" + "between" *
 - Stub length "value" meters
- * (A/B ? B/A ? A/E ? ...)**

Note that the stub was introduced on BIPT's request: no stubs are however present in the outside local network.

10.1.4 Proximus' liabilities in connection with incident reporting

108. Proximus starts the incident localization and performs repair activities during working or clock hours depending on the contract type.
109. If the Beneficiary has communicated to Proximus measurements from equipment on the Beneficiary's side that could help solve the incident, Proximus will analyze and verify them, and integrate them in its diagnosis process. In this event, Proximus will only be entitled to close the repair case, possibly qualifying it

as “Wrongful Repair Request”, after analysis and verification of those measurements. The results of these will be made available to the Beneficiary through the Incident & Repair Management Platform.

110. The Beneficiary recognizes that:

- If necessary, the Beneficiary is required to disconnect the terminal equipment at the End-User site upon Proximus’ request to allow proper measurements.
- Proximus can also request to the Beneficiary a timeframe for disconnecting the Raw Copper pair at the MDF to the Beneficiary Colocation facilities to do the necessary measurements. Refusal from the Beneficiary to do so will not allow Proximus to verify the line and can be considered as “Wrongful Repair Request”.
- During the repair process the Beneficiary may submit additional information in respect of a specific repair case, cancel a repair case or update a repair case on the same Raw Copper pair.

111. The Proximus repair helpdesk reports the result of the repair activities to the Beneficiary immediately upon the repair intervention.

112. Any additional feedback (repair status, follow-up, ...) or any additional action (such as the creation of another field intervention or the organisation of a “DUO” intervention during which a Beneficiary’s technician and a Proximus technician are going together on site) requested by the Beneficiary during the repair case lifecycle will be taken care of through the Proximus repair helpdesk.

113. Proximus reserves the right to contact and make, in urgent occurrences only, an appointment with the End-User of the Beneficiary for the repair of the raw copper pair.

114. In case of Planned Work on the Proximus network infrastructure or incident alert that can affect the raw copper pair, Proximus shall inform the Beneficiary via the Incident & Repair Management Platform.

10.1.5 Special conditions in connection with Repair

115. When the Beneficiary connects equipment that is not compliant with the requirements set out in the Annex “Technical Specifications” or equipment that causes disturbances in the cables for Proximus and/or other Beneficiaries, Proximus will first request the Beneficiary to disconnect this equipment. In case no action is taken by the Beneficiary, Proximus will disconnect the connection to the cable network, after informing the Beneficiary SPOC of this action, and confirm the completion of this action to the same contact.

116. In case the responsibility for the incident cannot immediately be placed, and where Proximus makes co-ordinated efforts with one or more Beneficiaries, settlement is made or arranged after the conclusion of the repair. Service interruptions due to modifications and maintenance are not included in the SLA on service availability, at the condition that it is done on a non-discriminatory basis and for the normal management of the network and at the condition that the Beneficiary has been informed about a possible interruption of service at least 5 working days beforehand in case the maintenance has a precautionary character.

10.1.6 Repair Request and Feedback

117. The Beneficiary’s repair cases will be answered by the CHC repair helpdesk. Any communication regarding the repair should be directed to the CHC repair helpdesk through the Incident & Repair Management Platform or, as back-up solution, via phone or e-mail. The CHC repair helpdesk representatives will however not accept direct calls/mails from the End-User.

118. In the same line, any follow-up feedback given to the Beneficiary during the repair case lifecycle will be through the CHC repair helpdesk so as to ensure continuity and consistency.

119. The Beneficiary has to provide in each repair case the service identifier (circuit ID) that was provided by Proximus in the Raw Copper Loop provisioning process. The Beneficiary repair case must relate to the type of service for which this loop has been ordered. If the reported incident does not match the service ordered by the Beneficiary as documented, the repair case will be rejected. During the repair process the Beneficiary may also submit additional information for a specific case, cancel a case or update a case.
120. Specific remark on the use of the circuit ID: whenever there is a modification on the installation of a line, the circuit ID identifying the line could change. The “MSO User Guide” document, which can be retrieved from the secured part of the Proximus wholesale website, summarises the cases where the circuit ID changes or remains unchanged.
121. To allow Proximus to contact the End-User approximately 30 minutes before the intervention to confirm that the technician (or splicing team) is coming, the Beneficiary will transmit to Proximus the contact point of the End-User and his/her phone number together with the appointment booking details (if required).
122. The escalation procedure document for the repair can be found on the secured part of the Proximus wholesale website.

10.1.7 SNA and Splicing Interventions (detected during repair)

123. During the repair process it may appear necessary for Proximus to execute Small Network Adaptations (SNA).
124. SNA can occasionally be identified via the repair process. Such cases are very limited and are typically coming from situations where the SNA was not detected during the provisioning process¹.
125. SNA detected during repair is by default limited to lines on which no traffic has been measured within 14 calendar days following the closure of the provisioning.
126. Splicing interventions are all splicing works (e.g. replacement of a damaged cable) performed by splicers during repair interventions. Splicing Interventions do not fall within the Street plan request obligations as imposed by e.g. article 192/2 of the RGIE/AREI. Splicing Interventions have to be notified by Proximus to the regional platforms such as POWALCO and OSIRIS as soon as the work is finished.

10.2 Incident Management and Repair for Shared Pair Services

127. This chapter describes the responsibilities of Proximus and the Beneficiary in incident management and repair for Shared Pair Services. Proximus will be responsible for the repair of the low bandwidth services offered to the End-User. The Beneficiary is responsible for the repair of the high bandwidth services. Proximus' responsibility with respect to the repair of the high bandwidth services is limited to the

¹ Example: an order with the installation method ‘without customer visit’ and for which the indicator ‘Renovated house’ was not used by the Beneficiary whereas the End-User’s house had actually been renovated and split into multiple apartments by the owner.

equipment on the side of Proximus' facilities, i.e. splitters and cabling and to the good working of the low bandwidth services.

10.2.1 Incident reporting to Proximus by the Beneficiary

10.2.1.1 Point of Entry for incident reports

128. For the reporting of incidents, the Beneficiary will contact Proximus :
- via the Incident & Repair Management Platform, as standard solution or,
 - by phone or e-mail, as back-up solution. The phone number to be used by the Beneficiary is 0800/93122 while the e-mail address is 080093122@proximus.com. The Beneficiary will send to this e-mail address an Excel file with the description of the incident.

10.2.1.2 The Beneficiary reports:

129. High bandwidth incidents: it is the Beneficiary's responsibility to do the necessary tests to ensure that the reported incident regarding the high bandwidth service is attributable to Proximus. It is always the Beneficiary that receives own End-Users' incident reports regarding the high bandwidth services before reporting some of those incidents to Proximus.
130. In case the incident cannot be univocally allocated to one of the Parties, Proximus and Beneficiary will proceed to an escalation of the issue whereby both Parties delegate a technical representative who will use all reasonable endeavours to solve the issue.
131. Before creating a repair case through the Proximus Incident & Repair Management Platform, the Beneficiary is required to perform first its own measurements on the shared pair and launch a DARE Pre-Troubleshooting test via the Proximus platform, which will return the line test results, a diagnosis as well as additional information (if any) such as a potential network incident impacting the circuit, an ongoing intervention on the voice part or a repetitive repair on the same circuit. The measurement parameters issued from the tests the Beneficiary has performed on its own equipment may be included in the repair case. To avoid a reject of the repair case due to invalid or incomplete information, the following information will be included in the repair case (or in the Excel file if applicable) based on the forms available in the Incident & Repair Management Platform:
- a. the incident description;
 - b. if available, the measurements from the equipment on the Beneficiary's side that can help solve the incident;
 - c. the service identifier that was provided in the Shared Pair provisioning process;
 - d. the contact point, phone number, language and availability of the End-User;
 - e. the contact point and phone number of the Beneficiary.

10.2.2 Incident reporting to Proximus by the End-User

132. Point of Entry for incident reports:

Proximus will receive direct calls from the End-User of the Beneficiary through the same channels as readily available for the End-User support with respect to the Proximus PSTN/ISDN incident reporting.

133. According to the content of the End-User's incident report, the following scenarios will occur:
- a. Low bandwidth problem: Proximus will start the repair process for PSTN/ISDN.
 - b. High bandwidth problem: Proximus will refer the End-User to the Beneficiary.

10.2.3 Repair Request

134. Proximus starts the incident localization and performs repair activities during working or clock hours depending on the contract type.
135. If the Beneficiary has communicated to Proximus measurements from equipment on the Beneficiary's side that could help solve the incident, Proximus will analyze and verify them, and integrate them in its diagnosis process. In this event, Proximus will only be entitled to close the repair case, possibly qualifying it as "Wrongful Repair", after analysis and verification of those measurements. The results of these will be made available to the Beneficiary through the Incident & Repair Management Platform.
136. The Beneficiary recognizes that:
 - a. if necessary, the Beneficiary is required to disconnect the terminal equipment at the End-User site upon Proximus' request to allow proper measurements;
 - b. Proximus can also request to the Beneficiary a timeframe for disconnecting the Shared Pair Service at the MDF to the Beneficiary Colocation facilities so as to be able to carry out the necessary measurements. Refusal from the Beneficiary to do so will imply that Proximus is not in a position to verify the line and can be considered as "Wrongful Repair Request";
 - c. the Beneficiary's repair request must relate to the type of service for which the Shared Pair Service has been ordered;
 - d. during the repair process the Beneficiary may submit additional information in respect of a specific repair case, cancel a repair case or update a repair case.

10.2.4 Repair Feedback

137. During the incident management and repair process, the communication regarding a repair request includes the following elements:
 - a. the Proximus repair helpdesk reports the result of the repair activities to the Beneficiary immediately upon the repair intervention;
 - b. any additional feedback (repair status, follow-up, ...) or any additional action (such as the creation of another field intervention or the organisation of a "DUO" intervention during which a Beneficiary's technician and a Proximus technician are going together on site) requested by the Beneficiary during the repair case lifecycle will be taken care of through the Proximus repair helpdesk
 - c. Proximus reserves the right to contact and make, in urgent occurrences only, an appointment with the End-User of the Beneficiary for the repair of the shared pair.
 - d. In case of Planned Work on the Proximus network infrastructure or incident alert that can affect the shared pair, Proximus shall inform the Beneficiary via the Incident & Repair Management Platform.

10.2.5 Special conditions in connection with Repair

138. When the Beneficiary connects equipment that is not compliant with the requirements set out in the Annex "Technical Specifications" or equipment that causes disturbances in the cables for Proximus and/or other Beneficiaries, Proximus is entitled to disconnect the Shared Pair Service after prior notification of the Beneficiary.
139. In case of work on the Proximus network infrastructure or incident alert that can affect the Shared Pair Service, Proximus shall inform the Beneficiary via the Incident & Repair Management Platform. Service interruptions due to modifications and maintenance are not included in the SLA on service availability, at the condition that it is done on a non-discriminatory basis and for the normal management of the network and at the condition that the Beneficiary has been informed about a possible interruption of service
 - a. at least 5 working days beforehand in case the maintenance has a precautionary character;
 - b. as soon as possible in case of repair.

10.3 Wrongful Repair Request

140. In case of a repair case where the incident is actually not located on the Proximus network infrastructure and Proximus has performed work for that repair case, useless costs are incurred by Proximus. To encourage the Beneficiary to effectively use the diagnose task functionality provided by Proximus and perform a prior check on the loop and on the connected equipment, Proximus will bill an incentive fee to the Beneficiary. There will be an indication of the repair case reference and the cause of the "Wrongful Repair Request".

10.4 Repair Process flows

141. Reference is made to the Process Flows describing the Repair Business Processes of the BRUO offer, which can be retrieved from the secured part of the Proximus wholesale website in the section "Operational Documentation" of the Regulated Services menu.
142. For detailed information on the Incident & Repair Management Platform supporting these Repair Business Processes, reference is made to the Web GUI (e-Troubleshooting Portal) User Guide and SOA IT Package stored on the secured part of the Proximus wholesale website.

11 Friendly User Testing and Full Commercial Phases

11.1 General

143. The Friendly User Testing Phase is a phase that Proximus strongly recommends the Beneficiary to follow, in order to let the Beneficiary get acquainted with the processes and systems used for the ordering of the services in this offer. Proximus advises to follow the procedure described below as it is a professional and effective way for both Parties and as only this method allows Proximus to deliver support to the Beneficiary in the inter-working between the Proximus network and the Beneficiary equipment.
144. If Beneficiary chooses to do a FUT test, Proximus provides support by a special trained FUT manager that will guide the Beneficiary through the electronic ordering process with its first orders.
145. The Friendly User Test is not mandatory.

11.2 Procedure

146. After the contract signature a FUT handbook will be submitted to the Beneficiary, describing the FUT modalities (possible tests, special Proximus helpdesk and support,...). Together with the FUT handbook, detailed information will be provided on the ordering interface including the list of feedback codes. This test phase will start with the interchange of electronic messages for the ordering. By the end of the phase both Parties need to feel confident that all processes and systems for order provisioning guarantee full service satisfaction. The FUT phase should cover a period of at least 10 working days.
147. In the FUT phase each Beneficiary can connect to one LEX out of a list of possible LEXs provided by Proximus. At this LEX the Beneficiary can obtain a maximum of 1 incremental unit of each type of Beneficiary Blocks. The number of Friendly Users (to be provided by the Beneficiary) is limited to 24 per Beneficiary.
148. The Full Commercial Phase will entirely be based on Beneficiary's firm orders submitted by the Beneficiary. The number of orders must be reasonable and progressive to avoid that the provisioning helpdesk and support services of Proximus are overloaded by large amounts of initial orders.
149. All questions or issues regarding the provisioning of individual End-User lines are to be addressed to the provisioning helpdesk:
 - Mail: llu.car@proximus.com
 - Phone: +32 78 152 232

12 Information on IT projects

150. For any changes initiated by Proximus which can have a significant impact on the IT systems of the Beneficiaries (e.g. a change in the XSD structure, a new type of XML message, a new exchange process), Beneficiaries shall be notified at least 6 months in advance with a high level description of the impact and with a structure of the documentation. Proximus will provide the detailed impact and documentation 3 months prior the start of the modifications.
151. For smaller changes (e.g. new or changed values in an existing XML field, new feedback codes, use of new fields in the existing XSD structure), Beneficiaries shall be notified at least 3 months in advance with a high level description of the impact and with a structure of the documentation. Proximus will provide the detailed impact and documentation 1 month prior the start of the modifications.
152. The BIPT will be informed in any case.
153. Concerning the periods of notice, the BIPT can allow exceptions.

Appendix A: Statement of Requirements, template for the Beneficiary

1 General

154. This appendix includes a non-exhaustive list of items that should be included in the Statements of Requirements (SOR). This template is only a guideline. It is the freedom of both Parties to discuss the content of the SOR.

2 Basic information

2.1 Registered name and address of Beneficiary

Beneficiary name	:
Address	:
Postal code and city	:
Country	:
Telephone number	:
Fax number	:
VAT registration number	:
Trade register	:

2.2 Confidentiality agreement

155. The Parties can choose to sign a confidentiality agreement as part of the SOR. The statements included in this agreement are to be determined by the Parties.

2.3 Key Contacts list

3 Key project dates

	Date required by Beneficiary	Indicative dates from Proximus
Requested date to start Friendly User Test		
Requested bringing into service date of ULL ordering		

4 ULL Products and Services Beneficiary wishes to obtain from Proximus

156. Please indicate which services you wish to obtain from Proximus in scope of ULL by means of the Service Description (SD):

SD	Name	Interest
SD2010	Raw Copper, existing single pair & Small Network Adaptations	Yes/no
SD2030	Raw Copper, connection to physical colocation	Yes/no
SD2035	Raw Copper, connection to distant colocation	Yes/no
SD2040	Raw Copper, Delivering of Tie Cable by Beneficiary	Yes/no
SD2045	Raw Copper, LDC colocation	Yes/no

SD	Name	Interest
SD3010	Shared Pair, existing single pair	Yes/no
SD3030	Shared Pair, connection to physical colocation	Yes/no
SD3035	Shared Pair, connection to distant colocation	Yes/no
SD3040	Shared Pair, Delivering of Tie Cable by Beneficiary	Yes/no
SD3045	Shared Pair, LDC colocation	Yes/no

Note that the activation of a BRUO Shared Pair over ISDN is no longer possible since 01/02/2017.

Appendix B: Description of the Forecasting Process

1 General Principles

157. This chapter describes the forecasting process. The forecasts are prerequisites for the respect by Proximus of the SLA on Slot Availability for orders submitted via the MSO (GUI & SOA) interface. Forecasts are needed to help Proximus plan a reasonable capacity to fulfil Beneficiary's demand.
158. Beneficiaries are guaranteed that Proximus will set-up the necessary resources for the period concerned to meet its market needs.
159. The forecasted volumes (provide, change operator, change, migrate and move included) are established by sub-area/area and ventilated per Installation Method ("without customer visit", "with customer visit" or "with customer visit splicing included"), all products (Bitstream and BRUO) combined. Orders with the technician type "Certified Technician" or "Partner Technician" are not taken into account in the forecast.

	Geographic (sub-)areas
Sub-area 1.1	West-Vlaanderen
Sub-area 1.2	Oost-Vlaanderen & Vlaams-Brabant - west
Sub-area 2.1	Antwerpen
Sub-area 2.2	Vlaams-Brabant - oost & Limburg
Area 3	Brussels (19 municipalities)
Area 4	Hainaut & Brabant wallon
Area 5	Liège, Namur & Luxembourg

160. For the three first series of forecasts of a new Beneficiary, both Parties will enter into good faith discussions about the submitted forecasts and the feasibility to implement the forecasts concerned.

2 Processing of Forecasts

161. Proximus will propose an individual forecast to each Beneficiary, based on the mathematical average of the actual ordered volumes of the Beneficiary over the last 6 months. By the 10th of each month at the latest, Proximus will download on the e-dedicated library of each Beneficiary the individual forecast proposal. This forecast will be elaborated per month, per installation method & per area/sub-area for all BRUO and Bitstream products combined.

162. The Beneficiary is responsible for the accuracy of the forecast. Therefore, the Beneficiary is requested to confirm or modify this forecast by e-mail (to cws.forecasting@proximus.com), at the latest one month prior to the first forecasted period in time. Forecast modifications or confirmation shall be done through the use of the templates provided by Proximus. These templates will only be considered as valid when they are properly completed. In case data is missing or is not correct, the forecast will be rejected (within 5 working days following its reception). In the latter case, the reasons of rejection will be indicated on the template by Proximus.
163. If no confirmation or modification is received by that time, Proximus will consider the proposed forecasted volumes as confirmed. Once confirmed, the forecasted volumes are globalized by Proximus into one basket. Capacity reservation as well as calendar dimensioning is done accordingly to fit the needs of the entire market.

E.g.:

By 10th September 2017, Proximus downloads the Beneficiary X forecast of November 2017 to January 2018 on its e-dedicated library (forecasted volume=mathematical average of the monthly volumes ordered by the Beneficiary X between March and August 2017).

Beneficiary X may send a modified forecast by e-mail to Proximus (cws.forecasting@proximus.com) until 30th September 2017.

Proximus will implement the Beneficiary X modified forecast (or by default the Proximus proposal) in its systems, and use it to determine global overrun and monthly deviations.

3 Deviations between successive forecasts

164. The globalized volumes forecasted by the entire market at month M will be compared with the volumes forecasted at month M-1. For each forecasted month common to the 2 successive forecasts, the maximum deviation between the successive forecasts of this month at month M and at month M-1 will be – 30 % to + 30 %.

4 Deviations between forecasted volumes and actual volumes

4.1 Underrun

165. Underrun occurs when actual ordered volumes are below forecasted volumes. Any underrun mechanism applies to the entire globalized volume of orders of the entire market.
166. A reasonable underrun of the forecasted volumes can be absorbed by Proximus and has no direct consequences for the Beneficiary. A reasonable underrun is considered to be no more than a 20% deviation of the forecasted volume, considered on a monthly basis. In case of severe underrun (i.e. more than 20%) and in case this underrun was caused by a single Beneficiary who excessively increased the volume proposed by Proximus, Proximus reserves the right to limit the allowed modification for the forecast of the following 3 months for that Beneficiary to a level deemed necessary by Proximus.

E.g.: The proposed volume for all Beneficiaries for month X is 1000 (=average of the actual ordered volumes of the last 6 months). Some Beneficiaries send a modification of their forecasted volume via CWS.forecasting@proximus.com and the forecasted volume for all Beneficiaries is confirmed at 1500. The realised volume for month X is finally lower than 1200 (1500-20%=underrun). If among the Beneficiaries that had sent a modification, the realised volumes are more than 20 % under the modified volumes, they will be identified as responsible of the underrun and won't have the possibility to modify the proposed forecasting during the following 3 months.

4.2 Overrun

167. Global Monthly Overrun occurs when actual ordered volumes are above forecasted volumes. Any overrun mechanism applies to the entire globalized volume of orders of the entire market.
168. As from the first order exceeding the globalized forecasted volume, independently of which Beneficiary might be the cause of this overrun, all orders of all Beneficiaries for the remainder of the month will be considered in "overrun". For any order in "overrun", no guarantee on Slot Availability will be offered and they will be carried out by Proximus as soon as possible, according to the remaining capacity available.

Appendix C: Forecasting templates for BRUO and Bitstream End-User Line orders

169. Remarks:

- M_i refers to the month in which the forecasting templates are submitted.
- All quantities (M_1 to M_{12}) are incremental values.

1 “Beneficiary Operations” Forecast

Forecasting Template for BRUO and Bitstream Orders
--

Beneficiary reference:

Edition:

Split: Without Customer Visit, With Customer Visit & With Customer Visit splicing included
--

Reception date:

Telephone Zone	M ₁	M ₂	M ₃	M ₄	M ₅	M ₆	M ₇	M ₈	...	M ₁₂
Sub-area 1.1										
Sub-area 1.2										
Sub-area 2.1										
Sub-area 2.2										
Area 3										
Area 4										
Area 5										

Appendix D: Forecasting and Firm Order templates for pre-provisioning of infrastructure

1 Prerequisite: equipment forecasting template

170. Reference is made to the order template which is used as a basis for the forecasting:

Forecast Form for Pre-Provisioning of Infrastructure Orders								
FROM Customer references	Firm Name	mandatory						
	Address	mandatory						
	City	mandatory						
	Commercial Contact	mandatory						
	Phone	mandatory						
	Fax	mandatory						
	Mobile	mandatory						
TO Proximus Contacts	Signature	mandatory						
	Account Manager	mandatory						
	Proximus NWS/NSC	mandatory						
	Phone	mandatory						
	Fax	mandatory						
	Mobile	mandatory						
	e-mail	mandatory						
Area Reference	Area/Sub-Area Name	FC Month	mmn/yyyy	m	m	m	m	# splitters (*)
NET	product	type	colo type	#	users	m cables	m cables	m cables
AGE	Raw Copper	1 Physical/Co-mingling		400		360		
AGE	Raw Copper	1 Physical/Co-mingling		300		270		
AGE	Raw Copper	1 Physical/Co-mingling		200		180		
AGE	Raw Copper	1 Physical/Co-mingling		100		90		
AGE	Raw Copper	2 Physical/Co-mingling		384		360		
AGE	Raw Copper	2 Physical/Co-mingling		288		270		
AGE	Raw Copper	2 Physical/Co-mingling		192		180		
AGE	Raw Copper	2 Physical/Co-mingling		96		90		
AGE	Raw Copper	2 Physical/Co-mingling		48			180	
AGE	Raw Copper	2 Physical/Co-mingling		24			90	
LEX	Raw Copper	1 Physical/Co-mingling		400		200		
LEX	Raw Copper	1 Physical/Co-mingling		300		150		
LEX	Raw Copper	1 Physical/Co-mingling		200		100		
LEX	Raw Copper	1 Physical/Co-mingling		100		50		
LEX	Raw Copper	2 Physical/Co-mingling		384		200		
LEX	Raw Copper	2 Physical/Co-mingling		288		150		
LEX	Raw Copper	2 Physical/Co-mingling		192		100		
LEX	Raw Copper	2 Physical/Co-mingling		96		50		
LEX	Raw Copper	2 Physical/Co-mingling		48			100	
LEX	Raw Copper	2 Physical/Co-mingling		24			50	
LEX	Raw Copper	2 Physical/Co-mingling		48			30	
LDC	Raw Copper	2 Physical/Co-mingling		48				
AGE	Shared Pair	PSTN Physical/Co-mingling		384		520		384
AGE	Shared Pair	PSTN Physical/Co-mingling		288		390		288
AGE	Shared Pair	PSTN Physical/Co-mingling		192		260		192
AGE	Shared Pair	PSTN Physical/Co-mingling		96		130		96
AGE	Shared Pair	PSTN Physical/Co-mingling		48			260	48
AGE	Shared Pair	PSTN Physical/Co-mingling		24			130	24
AGE	Shared Pair	ISDN Physical/Co-mingling		384		520		384
AGE	Shared Pair	ISDN Physical/Co-mingling		288		390		288
AGE	Shared Pair	ISDN Physical/Co-mingling		192		260		192
AGE	Shared Pair	ISDN Physical/Co-mingling		96		130		96
AGE	Shared Pair	ISDN Physical/Co-mingling		48			260	48
AGE	Shared Pair	ISDN Physical/Co-mingling		24			130	24
LEX	Shared Pair	PSTN Physical/Co-mingling		384		320		384
LEX	Shared Pair	PSTN Physical/Co-mingling		288		240		288
LEX	Shared Pair	PSTN Physical/Co-mingling		192		160		192
LEX	Shared Pair	PSTN Physical/Co-mingling		96		80		96
LEX	Shared Pair	PSTN Physical/Co-mingling		48			160	48
LEX	Shared Pair	PSTN Physical/Co-mingling		24			80	24
LEX	Shared Pair	ISDN Physical/Co-mingling		384		320		384
LEX	Shared Pair	ISDN Physical/Co-mingling		288		240		288
LEX	Shared Pair	ISDN Physical/Co-mingling		192		160		192
LEX	Shared Pair	ISDN Physical/Co-mingling		96		80		96
LEX	Shared Pair	ISDN Physical/Co-mingling		48			160	48
LEX	Shared Pair	ISDN Physical/Co-mingling		24			80	24
LDC	Shared Pair	PSTN Physical/Co-mingling		24			35	24
LDC	Shared Pair	ISDN Physical/Co-mingling		24			35	24
AGE	Raw Copper	1 Distant		400		360		
AGE	Raw Copper	1 Distant		300		270		
AGE	Raw Copper	1 Distant		200		180		
AGE	Raw Copper	1 Distant		100		90		
AGE	Raw Copper	2 Distant		384		360		
AGE	Raw Copper	2 Distant		288		270		
AGE	Raw Copper	2 Distant		192		180		
AGE	Raw Copper	2 Distant		96		90		
AGE	Raw Copper	2 Distant		48			180	
AGE	Raw Copper	2 Distant		24			90	
LEX	Raw Copper	1 Distant		400		200		
LEX	Raw Copper	1 Distant		300		150		

2 Ordering template

171. Reference is made to the order form for blocks, tie cabling & splitters which is available on the secured part of the Proximus wholesale website – section “Operational Documentation” of the Regulated Services menu (BRUO).

Appendix E: Overview of sub-area/areas

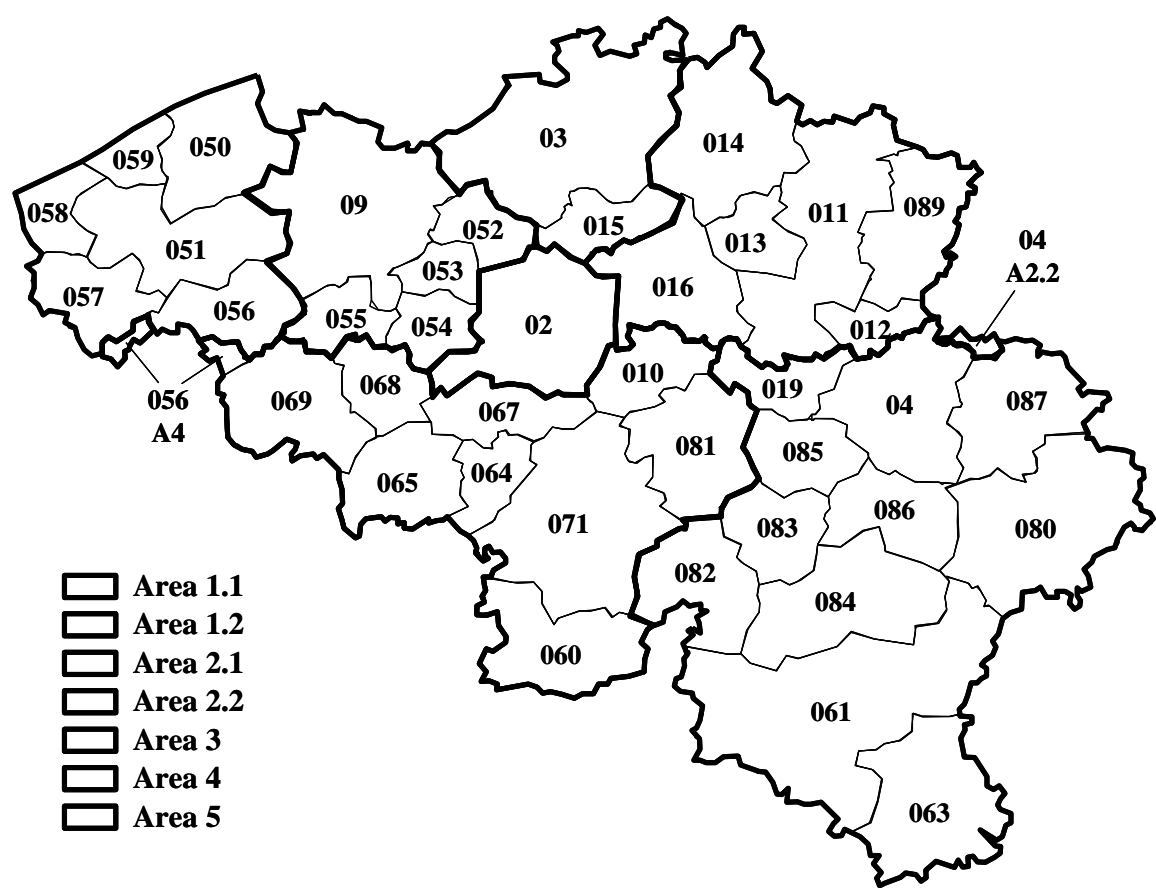


Fig. 8

Appendix F: SNA types

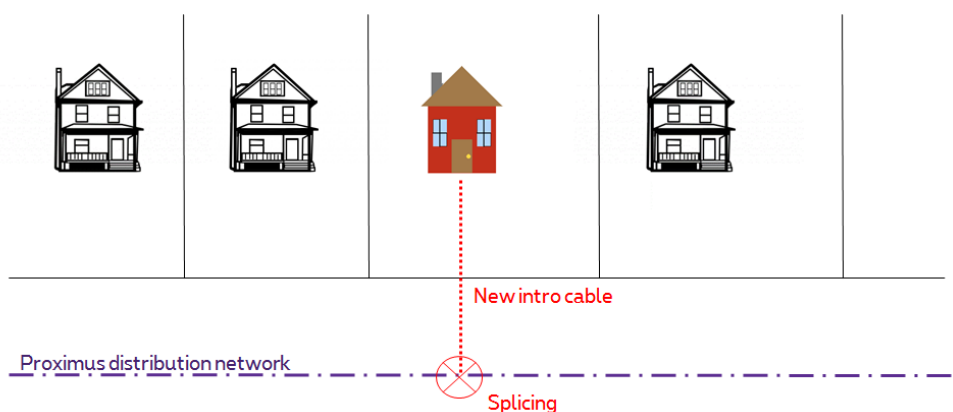
In order to facilitate the understanding of the nature of the splicing work executed in the day-to-day provisioning operations, Proximus will hereby remind and expand upon the four SNA solutions (or types) as set out here-above:

- SNA type 1: Realization of a new introduction in the building/Living Unit of the Beneficiary's End-User;
- SNA type 2: Renewal of the introduction in the building/Living Unit of the Beneficiary's End-User;
- SNA type 3: Splicing additional pairs in the existing introduction splice of the building/Living Unit of the Beneficiary's End-User or any other splicing work (splice adaptation, bridge splice, transition splice, ...) to ensure correct provisioning for this End-User;
- SNA type 4: Moving the existing introduction from an existing Distribution Cable to another existing Distribution Cable.

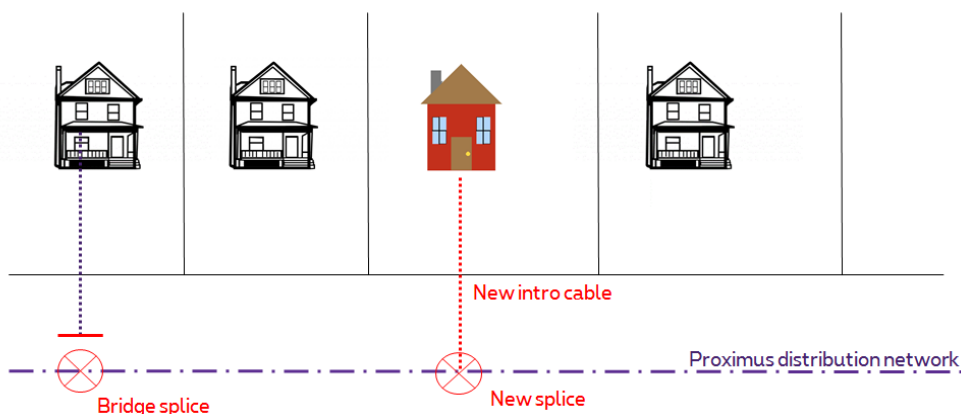
SNA type 1 - Realization of a new introduction in the building/Living Unit of the Beneficiary's End-User

Two sub-types or variants (1A & 1B) can be distinguished as the splicing work will be different:

SNA TYPE 1A



SNA TYPE 1B

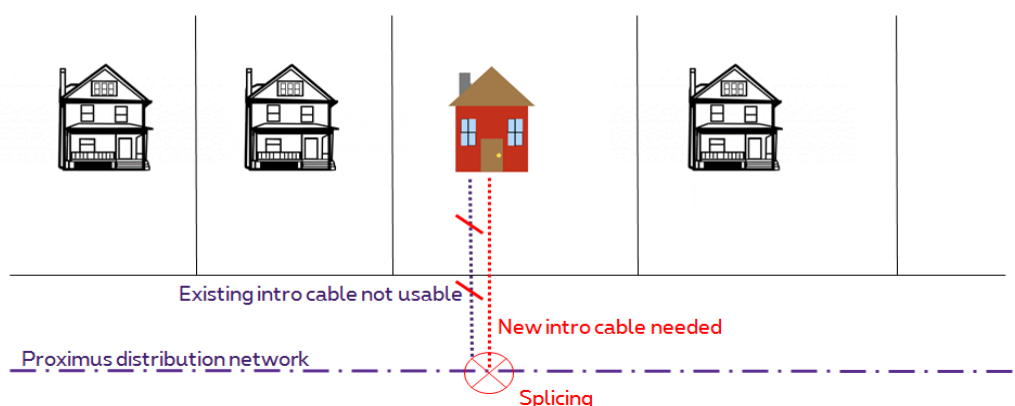


For the sake of clarity, two (2) pits – as e.g. illustrated in the ‘SNA type 1B’ figure here-above – are executed in a certain number of cases. Such SNA variant (i.e. a new splice with in addition a bridge splice aiming at recuperating freed up capacity) is relatively frequent in the Brussels area.

As further documented, other SNA (sub-)types might also require 2 pits. Reference is made to the SNA (sub-)types 3C & 4 hereafter.

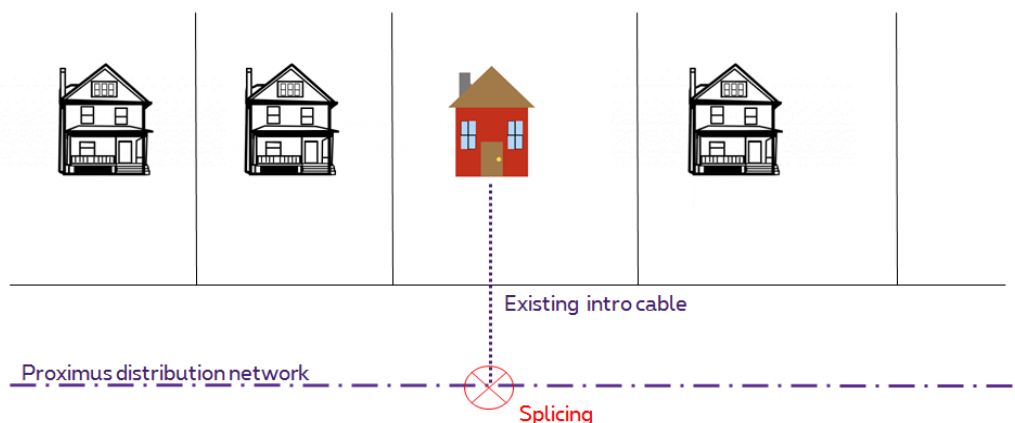
SNA type 2 - Renewal of the introduction in the building/Living Unit of the Beneficiary's End-User

SNA TYPE 2

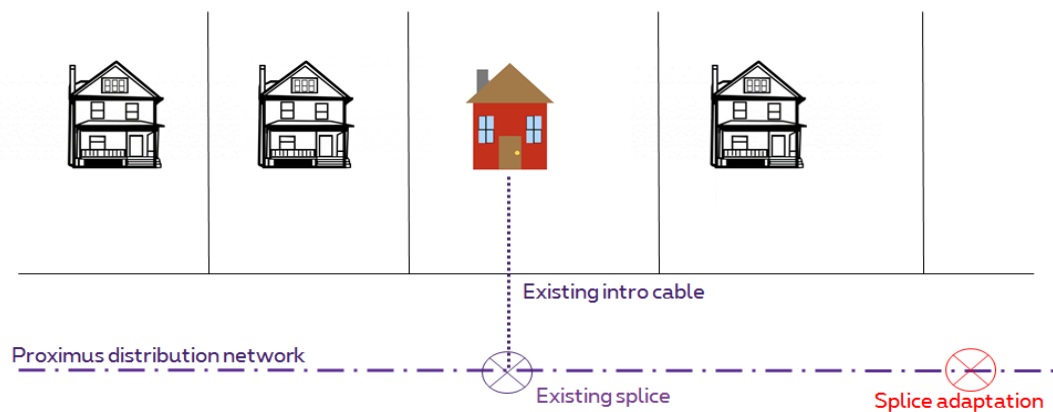


SNA type 3 - Splicing additional pairs in the existing introduction splice of the building/Living Unit of the Beneficiary's End-User or any other splicing work to ensure correct provisioning for this End-User

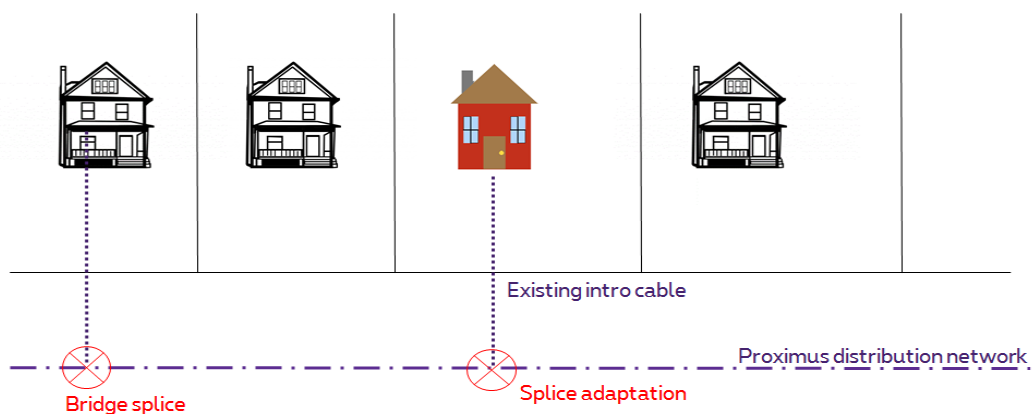
SNA TYPE 3A



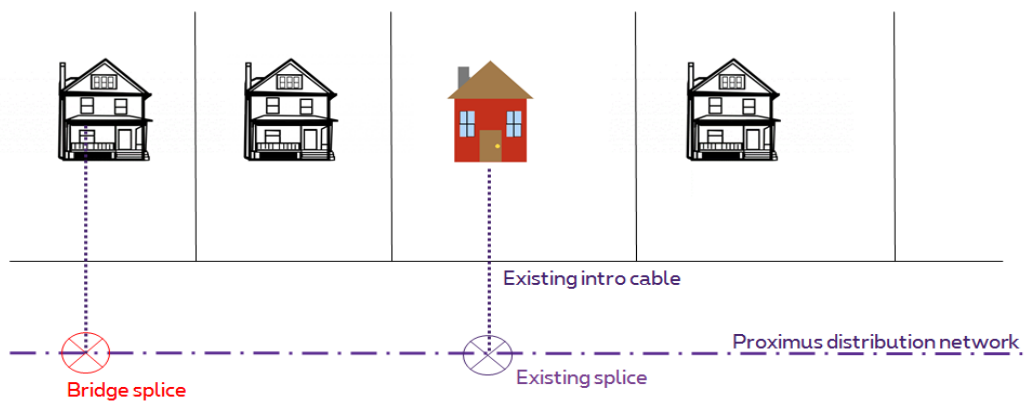
SNA TYPE 3B



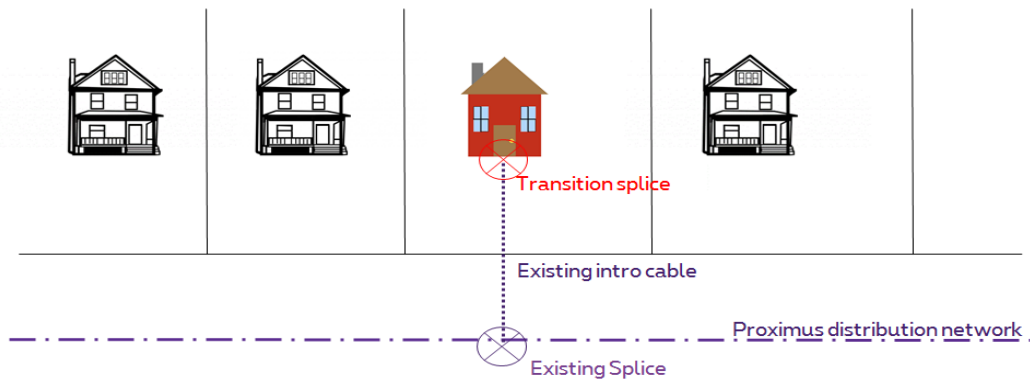
SNA TYPE 3C



SNA TYPE 3D



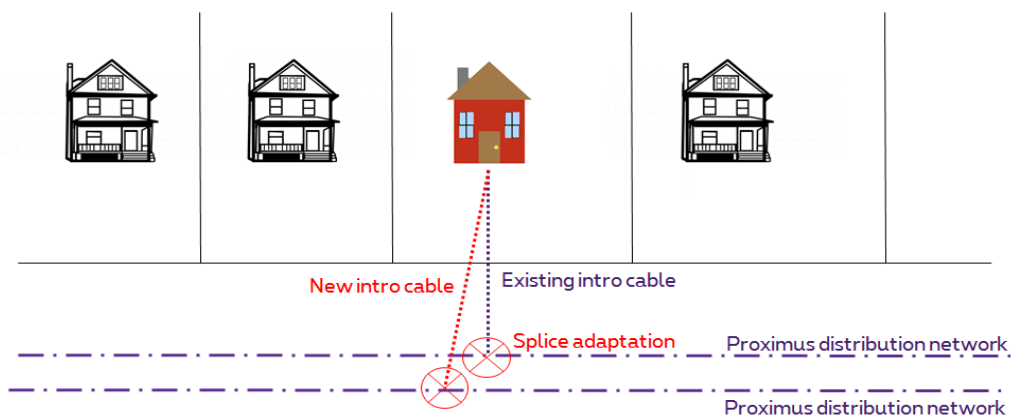
SNA TYPE 3E



For the sake of clarity, a transition splice consists of indoor splicing without digging work (contrary to the other SNA types or variants) to extend the introduction while, as already mentioned above, a bridge splice (also referred to as bridging or “pontage”) entails the recuperation of freed up capacity.

SNA type 4- Moving the existing introduction from an existing Distribution Cable to another existing Distribution Cable

SNA TYPE 4



For the sake of clarity, this SNA type requires two (2) pits or, in some cases, one (1) enlarged pit on the public domain.

The above figures illustrate that the splicing work involved for the 4 SNA types can vary according to the situation encountered by the splicing team in the field. They also help understand that in some cases the End-User might

not notice that splicing work has effectively been executed. In this regard, reference is made to the SNA variants 3B, 3D and 3E here-above.

For the avoidance of doubt, Proximus underlines that an SNA always entails at least one splicing task, whether with digging work (all cases except variant 3E and up to max. 2 pits) or without digging work (variant 3E) on the public domain.

◆◆◆◆◆ End of document ◆◆◆◆◆