



Proximus Reference ULL Offer

For Telecommunications Operators

Main Body

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1. Introduction

1.1 Scope of the Reference Offer for ULL

1. The present Reference Offer for ULL deals with the ULL Services that Proximus offers to a Telecommunications Operator¹, hereafter called "Beneficiary".
2. The ULL Services included in this Reference Offer for ULL encompass the following services, as defined and described below:
 - Raw Copper Services
 - Shared Pair Services
 - Colocation Services
3. For the provision of Colocation Services reference is made to the Colocation Agreement as published on the Proximus wholesale website. A subscription to this agreement is a prerequisite to install equipment in a Proximus building. In other words, the conclusion of a Colocation Agreement constitutes a prerequisite for the provision of Colocation Services to any Beneficiary who wishes to install its equipment in a Proximus building. For the sake of clarity, Colocation Services are to be used in the regulatory framework of the Proximus reference services allowing the right to obtain Colocation (BRIO, BRUO, Bitstream).

1.2 General Principles and Limits of the Reference Offer for ULL

4. The provision of ULL Services is subject to the conclusion of a Raw Copper and/or a Shared Pair agreement between Beneficiary and Proximus according to the General Terms and Conditions.

¹ "Telecommunications Operator" under the present Reference Offer is to be understood as entitled to provide telecommunications services under national legislation, and which is eligible for unbundled access to a local loop. Reference is made to the Annex "General Terms and Conditions" for further details on the eligibility.

5. Proximus will keep the full ownership of the equipment and network elements that belong to it and that have been installed by Proximus or on behalf of Proximus and that are used to provide ULL Services to the Beneficiary.
6. Proximus is not responsible for the content of the communications conveyed using ULL Services.

1.3 Definitions

7. The capitalized terms in the present Reference Offer for ULL have the meaning as defined below:

Active Loop	A Loop terminated in a LEX or an LDC that is actively used by Proximus to provide the Voice Telephony Service to a specific End-User before the unbundling of the loop is asked.
Active Equipment	Equipment which has to be electrically fed (concentrators,...).
ADSL	Asymmetric Digital Subscriber Line.
BIPT	Belgian Institute for Postal services and Telecommunications.
Block	The 100 pair or 48 pair connecting block dedicated to one Beneficiary on which Proximus will connect the ULL Services as ordered by the Beneficiary.
Cable Tray	Cable Tray is used to lead Tie Cabling from the Beneficiary's equipment to the Proximus Main Distribution Frame.
Certified Technician	Any technician employed either by a Beneficiary or by one of Beneficiary's subcontractors, trained and certified by Proximus in order to perform, in place of a Proximus Technician, the installation of BRUO Raw Copper lines.

Colocation Agreement	An agreement concluded between Proximus and a Beneficiary which covers, in particular, the technical, operational, billing, planning and financial conditions for the Colocation Services provided by Proximus to the Beneficiary.
Colocation Area	Part of a Colocation Room allocated to a single Beneficiary.
Colocation Room	Dedicated room in a Proximus building, designated by Proximus, where Beneficiaries can install their equipment.
Co-mingling	<p>Physical Colocation Service whereby the Beneficiary installs its authorized equipment next to or near equipment of Proximus in a Proximus building. The Beneficiary has an accompanied access based on a contract concluded between Beneficiary and a Security Firm agreed by Proximus.</p> <p>Pursuant to the original advice regarding co-mingling, Proximus reserves the right for its free choice regarding the location of the co-mingling area within the Proximus building.</p>
Co-mingling Area	Part of a Co-mingling Zone allocated to a single Beneficiary.
Co-mingling Zone	The spaces selected by Proximus within the Proximus technical building where Co-mingling can be offered.
Colocation Services	Colocation Services as described in the Colocation Agreement that is published on the Proximus wholesale website.
Connection Cable	The cable from the dedicated Beneficiary Blocks to the Proximus Splitter rack.
Connectors	Physical points of connection on which the Extended Tie Cables are terminated in case of Distant Colocation.

Cross Connection Cabinet	Cabinet used in conjunction with Distant Colocation Services at which the Beneficiary Cable is connected to a Proximus Extended Tie Cable.
Demarcation Point (DP)	The point marking the boundary between the Proximus' and the Beneficiary's domain of responsibility.
Distant Colocation	Colocation Service in a Cross Connection Cabinet in the immediate vicinity of a Proximus building.
Extended Tie Cable	The cable from the dedicated Beneficiary Blocks to a Cross Connection Cabinet located in the immediate vicinity of the Proximus building.
gShDSL	Symmetric High bit rate Digital Subscriber Line.
HDSL	High bit rate Digital Subscriber Line.
Introduction Cable	Cable between the Introduction Splice on the Distribution Network and the Network Termination Point at the End-User premises.
IP-DSLAM	Also known as ISAM, standing for IP Digital Subscriber Line Access Multiplexer.
KVD	KabelVerDeler (street cabinet).
LDC Building Colocation	Colocation Service whereby the Beneficiary installs authorized equipment in a Proximus LDC building. This form of Colocation is realized pursuant to the Colocation Offer and, in particular, the LDC Colocation Agreement (Appendix 2, Case 1).

LDC Container Colocation	Colocation Service whereby the Beneficiary installs authorized equipment in a Proximus LDC Container. This form of Colocation is realized pursuant to the Colocation Offer and, in particular, the LDC Colocation Agreement (Appendix 3, Case 2).
LDC Cabinet Colocation	Colocation Service in a Cabinet in the immediate vicinity of a Proximus LDC building or container. This form of Colocation is realized pursuant to the Colocation Offer and, in particular, the LDC Colocation Agreement (Appendix 4, Case 3).
LDC Distant Colocation	Colocation Service in a Cross Connection Cabinet in the immediate vicinity of a Proximus LDC building or container. This form of Colocation is realized pursuant to the Colocation Offer and, in particular, the LDC Colocation Agreement (Appendix 5, Case 4).
Local Loop	A pair of fully metallic continuous unequipped copper wires on the section between the Proximus Main Distribution Frame at the Proximus Local Exchange and the End-User site connected on a Network Termination Point, in some cases realized by means of Small Network Adaptations as defined in Annex E – “Planning and Operations Manual” of the present Reference Offer. The Loop can be a Non-Active Loop (Raw Copper Loop) or an Active Loop (Shared Pair Loop).
LDC	Local Distribution Center.
Non-Active Loop	A Loop that is not actively used by Proximus to provide the Voice Telephony Service to a specific End-User before the unbundling of the loop is asked.
Party	Depending on the context, Proximus and/or the Beneficiary entering into an ULL or Colocation Agreement.
Physical Colocation	Colocation Service whereby the Beneficiary installs authorized equipment in a Proximus building.

Reference Offer (for ULL)	The present offer for ULL Services also referred to as the BRUO offer (Proximus Reference Unbundling Offer).
Request	The Beneficiary's demand concerning the delivery of a Raw Copper Loop or Shared Pair Service as described in this Reference Offer.
ROP	Remote Optical Platform.
SDSL	Symmetric Digital Subscriber Line (an acronym for g.ShDSL).
Services of Electronic Communications	Services as defined in the law on electronic communications of 13/06/2005, art. 2, 5° ("service de communications électroniques" / "elektronische communicatiedienst").
Splitter	Passive element that separates the low frequency part (used for voice) of the loop from the high frequency part of the loop.
Tie Cable	The cable from the dedicated Beneficiary Blocks to the Physical Collocated equipment of the Beneficiary for Raw Copper Services or from the Splitter rack to the Colocation / Co-mingling Area for Shared Pair Services.
Type	Qualification of the loop, determined by spectrum management rules and rules of usage.
ULL Services	ULL Services described in the present Reference Offer for ULL.
Unequipped	Without any type of Active Equipment or specific passive elements like load coils, repeaters or other equipment causing non-continuity in the Raw Copper Loop.

Virtual Colocation

Colocation Service whereby Proximus installs Beneficiary's authorized equipment in a Proximus building. In this case, the Beneficiary has no access to the Proximus building. Proximus will ensure the maintenance and the Beneficiary will manage remotely its equipment.

Working Day

Each day from: 8h00 - 16h30 except Saturday, Sunday, national legal holidays in Belgium and Proximus holidays, i.e. 26 December and 2 January of each calendar year.

xDSL

General term used to cover the various DSL applications (ADSL, ADSL2+, Re-ADSL2, HDSL, SDSL, VDSL2).

1.4 Terminology, Structure and Concepts of the Proximus copper Local Access Networks

8. A good understanding of the structure, terminology and concepts that Proximus currently uses in its copper Local Networks helps the Beneficiary to develop its services based on ULL. A concise overview of the structure and elements used in the Proximus Network is therefore given hereafter. Network information listings are published on the secured website of Proximus.
9. Belgium is divided in 594 Local Networks. As a rule the number of and boundaries of a Local Network are rigid and only exceptionally changed, e.g. to take into account changes in the physical structure of the environment, to correct anomalies, etc.
10. Most Local Networks are still served by a Local Exchange Building (LEX), which is the interconnection point of that Local Network to the Proximus Backbone Network. Each LEX includes the Main Distribution Frame (MDF) of that Local Network, local loop line access equipment and transmission equipment for the connection to the Backbone Network. The Building Outphasing project empties selected Local Exchange Buildings which implies that – except when a small Mini Main Distribution Frame is maintained – local loop line access equipment is no longer usable after the closure of the concerned building.
11. On Street Cabinets (ROPs) in non-Building Outphasing networks, Proximus may deploy ADSL from the ROP instead of ADSL from the LEX. “ADSL from ROP” is incompatible with LEX/LDC-installed (Re)ADSL(2+) services but can co-exist with LEX-installed S(H)DSL services. Therefore a specific Raw Copper service type (Type 3) has been defined which maintains S(H)DSL-based services on BRUO in combination with “ADSL from ROP”.
12. To facilitate and optimize the management and development of a Local Network, the following Concentration Points are used in the Proximus Local Networks:
 - Local Distribution Center (LDC): an active Concentration Point installed typically in a small (prefab) building, containing a distribution frame, local loop line equipment and transmission equipment for relay with the LEX. Two types of LDCs can be distinguished: LDCs that do have copper pairs available from the LDC to the LEX and LDCs that do not have this.
 - Cross Connectable Street Cabinet (KVD – ‘Kabelverdeler’ or ‘Borne’): a Concentration Point containing a cross connect distribution frame.
13. The number of and area served by an LDC or KVD is flexible to allow an optimized development of the Local Network.
14. Above Concentration Points will divide the Local Network into the following network levels:
 - Local junction: the copper cables between the LDC and LEX. These cables may be used:
 - To connect End-Users in or out of the serving area of an LDC to the LEX. These End-Users will be cross connected on the Distribution Frame of the LDC directly towards the LEX, i.e. without using (active) line equipment installed in the LDC.

(Remark: the number of End-Users, which can be directly connected to the LEX, will depend on the capacity of the local junction cable). In some cases, there is no facility to connect such End-Users. Those LDCs are explicitly indicated by Proximus.
 - As bearer of a transmission system to connect the LDC line equipment with the LEX.

- Feeder Network: the copper 'feeder' cables between the LEX or LDC and the KVD.
 - Distribution network: the copper 'distribution' cables in the street, between the KVD or LDC and the Introduction Cable at End-User premises. The KVD or LDC is thus the connection point between the Feeder Network and the Distribution Network except for KVDs whose copper 'feeder' has been removed (e.g. for Building Outphasing or caused by planned infrastructure works).
15. As there is no Concentration Point in the Proximus network 'after' the KVD, the buildings of the End-Users are connected via an Introduction Cable², which is directly spliced on the distribution cables. This splice is referred to as Introduction Splice or Distribution Point.
16. The access line will be terminated at the End-User premises in the Network Termination Point (NTP). Inside a multi-tenant building it may use the so-called 'vertical cabling', i.e. the common cable network, which makes the distribution to the different apartments to reach the NTP in the relevant apartment.
17. Depending on the location of the End-User premises, his access line may be composed out of one or more of the above levels.
18. Occasionally active or passive equipment may be installed on some loops in the Local Networks, mainly:
- Load coils
 - Repeaters

1.5 Practical information

19. Basic information and data regarding the Proximus local network, relevant to ULL Services, are included in Annexes J.
20. Further requests for information concerning the present Reference Offer for ULL can be made in writing by interested Parties at the following Proximus contact point. In particular, in the event of doubt as to the interpretation of the provisions of this Reference Offer, Proximus should be contacted. In the event of doubt and as stated by the BIPT, contacting Proximus is without prejudice to any clarification of the reference offer given by the BIPT.
21. In case of disagreement about the interpretation, one of the Parties can request the BIPT for a decision on the specific case. This decision will be taken within a reasonable term and will take into account the legal framework and the valid advices. The possibility for the Parties to present the BIPT a problem in interpretation will not influence the legal means that remain at the Parties' disposal in case of a conflict.

Proximus
Carrier and Wholesale Solutions
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1030 Brussels

² In some (big) buildings the Distribution or Feeder Cable is directly introduced in the building, without Introduction Splice.

E-mail: wholesale@proximus.com

Website: <https://www.proximus.be/wholesale/>

Tel.: 078-15 22 32

Fax: 02-202 84 83

22. The sharing by Proximus of some types of information (e.g. the addresses of Proximus buildings) is subject to the prior signing of a Non-Disclosure Agreement (included in Annex Jb) by the requesting Party. Furthermore, after prior approval by BIPT, a payment may be due for obtaining certain documents.
23. It is also a right for everyone who has signed a Non-Disclosure Agreement to obtain information via the Proximus website through a secured access. Information on how to access the mentioned website can be obtained at the Proximus contact point mentioned above.
24. This offer is made by Proximus PLC under Belgian Public Law, a Belgian autonomous public enterprise organized under the Law of March 21, 1991, with registered office at B-1030 Brussels, 27 Boulevard du Roi Albert II, VAT BE 0202 239 951 Brussels Register of Legal Entities, exercising its activities under the commercial name Proximus, and referred to as "Proximus" in all the documents that are part of this Reference Offer.

2. Technical Implementation of ULL Services

2.1 Raw Copper

2.1.1 Access to a Raw Copper Loop

2.1.1.1 Access to the existing Raw Copper Loops at LEX level and LDC level

25. Beneficiaries have the right to gain access to an end-to-end Raw Copper Loop at Proximus Local Exchange buildings and Local Distribution Centers (see list of Proximus Local Exchange buildings and Local Distribution Centers on the secured website of Proximus), on the condition that the requested copper pair is unequipped. A pair is equipped when load coils or Active Equipment (coupling, repeaters, correctors, etc.) are present in the relevant circuit/s. Proximus will make an equipped pair unequipped when possible. In case that the equipped pair cannot be made unequipped, this will be proved to the Beneficiary. For the sake of clarity, pairs cannot be made unequipped in case this equipment is dedicated to multiple End-Users or in case this removal does impact in any possible way other services or End-Users. It is further required that the Raw Copper Loop exists and can be used without the need of severe network modification works, which have to be proved to the Beneficiary. In this respect, the Small Network Adaptations performed by Proximus are described in Annex E – “Planning and Operations Manual” of the present Reference Offer.
26. The Beneficiary will have access to a Raw Copper Loop at the Proximus Main Distribution Frame (MDF) on which the Raw Copper Loop is terminated. The access will be realized (see fig.1) by using dedicated Horizontal Blocks per Beneficiary (hereafter called “Blocks”) on the MDF concerned. The Beneficiary’s access to the Raw Copper Loop will be established by connecting Tie Cables, installed on Cable Trays, from the Beneficiary’s dedicated Blocks at the MDF to the Beneficiary’s Collocated equipment in case of Physical or Virtual Colocation, or by connecting Extended Tie Cabling to a Cross Connection Cabinet in the immediate vicinity of the Proximus building, in case of Distant Colocation.
27. The installation and maintenance of the (Extended) Tie Cables and Blocks will be handled by Proximus.
28. The Demarcation Point will be:
 - in case of Physical or Virtual Colocation: the point on the Tie Cable just before it is connected to the Beneficiary’s Collocated equipment;
 - in case of Distant Colocation: the Connectors in a Cross Connection Cabinet in the immediate vicinity of the Proximus Local building.
29. The access to the Raw Copper Loop at the End-User site will be at the Proximus Network Termination Point (NTP).
30. Except with respect to the Proximus interventions for Small Network Adaptations and subject to what is stated below, the installation of a Network Termination Point, where relevant, and the establishment of cross connections in the local access network between the Distribution Cable and the Feeder Cable are part of the provisioning and installation of a Raw Copper Loop under the present Reference Offer. If decided by the Beneficiary, part of the installation can be executed by a Certified Technician chosen by the Beneficiary.
31. The Beneficiary has a right of access to the loop at LDC level. However he may ask for unbundling of the loop starting from the LEX, even if the End-User is (if it is an active loop) in service from the LDC, except where no direct connection to the LEX from the LDC is possible, which has to be proved to the Beneficiary.

2.1.2 Types of Raw Copper Loops

32. The following types of Raw Copper Loops are offered under the present Reference Offer for ULL (for technical details concerning the nature of the signals to be used on each type of Raw Copper Loops, reference is made to the Technical Specifications document that can be found in Annex C):
- **Raw Copper Loops of Type 1:** Basic Raw Copper Loop only to be used for the transmission of signals (including and starting from direct current) within the voice frequency band being PSTN, or Raw Copper Loop only to be used for the transmission of signals for which the binary rate is smaller or equal to 64 kbit/s or for the transmission of signals using ISDN basic access line code.
 - **Raw Copper Loops of Type 2:** Raw Copper Loop to be used according to the rules of the Technical Specifications document (Annex C). The Beneficiary can also use the Raw Copper Loop like Type 1, obviously.
 - **Raw Copper Loops of Type 3:** Raw Copper Loop to be used for S(H)DSL services which are compatible with remote (Re)ADSL(2+) from ROPs. The technical specifications are documented in Annex C. The Beneficiary can also use the Raw Copper loop like Type 1.

When a Raw Copper Type 2 is mentioned in the present document and its Annexes, it must be considered as a Raw Copper of Type 2 or Type 3, except if explicitly otherwise mentioned.

2.2 Shared Pair

2.2.1 Access to the Shared Pair Service

33. Beneficiaries have the right to gain access to the Shared Pair Service at a Proximus Local Exchange Building or at a Proximus Local Distribution Center.
34. The Shared Pair Service requires that the End-User has a subscription for a single line PSTN or ISDN BA Proximus Service. Any modification or a cease of the single line PSTN or ISDN BA Proximus Service requested by the End-User will affect the access to or the price of the Shared Pair Service by the Beneficiary. The specific procedures that are applicable in those circumstances are described in the Planning and Operations document (Annex E).
35. A Shared Pair Service can therefore only be offered on a single, non-loaded and active pair. No load coils or other active equipment can be present in the circuit.
36. In case load coils or other active equipment are present in the circuit, Proximus will proceed with a new pair selection if technically feasible. If this is not feasible, this has to be justified to the Beneficiary.
37. A Shared Pair Service cannot be offered in case of an equivalent ISDN solution configured on a dedicated copper pair.
38. The Beneficiary will have access to the Shared Pair Service at the level of the Main Distribution Frame of the Local Exchange or Local Distribution Center, where Proximus will install and maintain the necessary splitters to split the high frequency that is delivered to the Beneficiary from the low frequency that is used by Proximus.

39. The access to the high bandwidth at the Proximus Network side will be realized on the Proximus Main Distribution Frame (MDF) by using dedicated Blocks per Beneficiary. From there, a pair of physical wires will be connected to the Splitter rack (Connection Cables). From the Splitter rack, connections will be made to the Colocation / Co-mingling Area of the Beneficiary or to the Cross Connection Cabinet in the immediate vicinity of the Proximus building by use of Tie Cables or Extended Tie Cables. In addition, another pair of physical wires will be connected from the Splitter rack to the Blocks dedicated to the Beneficiary to connect the low frequency bandwidth to the Proximus Blocks (see fig.3).

40. The Demarcation Point will be:

- in case of Physical or Virtual Colocation: the point on the Tie Cable just before it is connected to the Beneficiary's Collocated equipment;
- in case of Distant Colocation: the Connectors in a Cross Connection Cabinet in the immediate vicinity of the Proximus Local building.

41. Proximus does no longer accept any new order of BRUO Shared Pair over ISDN, including:

- New orders of BRUO Shared Pair over ISDN,
- Conversion from BRUO Shared Pair over PSTN to BRUO Shared Pair over ISDN,
- Conversion from BRUO Raw Copper Services to BRUO Shared Pair over ISDN,
- Move of BRUO Shared Pair over ISDN.

A global stop-service of the installed park BRUO Shared Pair over ISDN is not yet planned. Currently the stop-service of installed lines of BRUO Shared Pair over ISDN is factually notified in the framework of the Building Outphasing program.

2.2.2 Types of Shared Pair Service

42. The following types of Shared Pair Services are offered under the present Reference Offer for ULL (for technical details concerning the nature of the signals to be used for each type of Shared Pair Service, reference is made to the relevant Technical Specifications document in Annex C):

SPP (Shared Pair Service over PSTN)	The high frequency part on the loop concerned is to be used by the Beneficiary to connect DSL equipment providing DSL services capable of co-existing on the same pair as voice-band services (DSL over PSTN).
SPI (Shared Pair Service over ISDN)	The high frequency part on the loop concerned is to be used by the Beneficiary to connect DSL equipment providing DSL services capable of co-existing on the same pair as ISDN Basic Access services (DSL over ISDN).

43. As mentioned above, Proximus does no longer accept any new order of BRUO Shared Pair over ISDN.

2.3 Spectrum Management and equipment aspects

44. The rules mentioned in Annex C will apply. These rules may be modified or completed on the basis of the proposals of the Task Group Spectrum Management or by decision of BIPT.

2.4 Beneficiary delivered Tie Cabling, Demarcation point and access to the MDF

45. Notwithstanding what is mentioned above, the demarcation point in case of Beneficiary delivered Tie Cabling will be the Beneficiary dedicated Blocks on the MDF in case of Raw Copper and the Splitter rack in case of Shared Pair (Shared Pair With Voice) or Raw Copper + Splitter (Shared Pair Without Voice).
46. In case of Tie Cabling delivered by the Beneficiary, the area where the Demarcation Point is situated (MDF area in case of Raw Copper or the area where the Splitter rack is situated in case of Shared Pair or Raw Copper + Splitter) at the Proximus Local Exchange or Local Distribution Center is in principle accessible to the Beneficiary for maintenance and test purposes. Beneficiary will have to justify the necessity of the planned maintenance and/or tests.
47. Beneficiary will have to substantially indicate the purpose of this access (to be mentioned with the application for guided access).
48. The access will always be with a security escort, at the expenses of the Beneficiary, and pursuant to the conditions for guided access as described in the framework of co-mingling (Physical Colocation with escort access).

3. Ordering of Raw Copper Services

49. Proximus shall deliver access to Raw Copper Loops at the MDF according to the Beneficiary's orders submitted to Proximus in accordance with the rules set out in this Reference Offer.
50. The Beneficiary will order the Tie Cables and Blocks prior to the request of Raw Copper Loops at a particular Proximus Local Exchange building or LDC. If at a certain moment, no more free wires are available in the Tie Cables ordered by the Beneficiary or no more free space is available on the Blocks, the Raw Copper Loop Requests issued by the Beneficiary with respect to the Proximus Local Exchange building or LDC concerned will be discarded, since the provisioning of these Raw Copper Loops cannot be performed.

3.1 Ordering of Raw Copper Loops

51. The terms and conditions for the ordering and provisioning of Raw Copper Loops are defined in "Annex E: Planning and Operations Manual".
52. Proximus will discard a Request for a Raw Copper Loop, in particular but not limited to, in the following cases:
 - if no (Non)-Active Loops are available (in case of a Request for a (Non)-Active Loop), without prejudice of the right of the Beneficiary to have Small Network Adaptations performed by Proximus, according to the conditions as set out in "Annex E – Planning and Operations Manual" and "Annex H – Pricing and Compensations" of the present Reference Offer;
 - if no Migration is possible due to technical constraints in the implementation of the existing End-User connection;
 - if no loop, compatible with the applicable pair selection rules as defined in "Annex C – Technical Specifications", is available;
 - if no positions and/or pairs are available on the Type 1 or Type 2/Type 3 Beneficiary Blocks, Tie Cables and/or Connectors or Extended Tie Cables, depending on the type of colocation.
53. Proximus further reserves the right to discard Beneficiary's Requests for the implementation of a Raw Copper Loop based on wrong format data. Further details can be found in "Annex E: Planning and Operations Manual".
54. When a Discard message is sent to the Beneficiary, the reason of the Discard is provided to the Beneficiary in the message.
55. In case a Migration³ cannot be executed, the Beneficiary's Request will be discarded. However, in that case the Beneficiary has the possibility to send to Proximus a Non-Active Loop Request. In the event that the latter Request cannot be executed either, this Request will also be discarded.

³ See chapter 10: Migrations.

3.2 Ordering of equipment for pre-provisioning

3.2.1 Blocks, Tie Cabling and Cable Tray

3.2.1.1 Blocks, Tie Cabling and Cable Tray delivered by Proximus

56. The equipment that can be ordered by the Beneficiary is described in the relevant Service Descriptions in Annexes B, which contain the standard and non-standard ordering increments.
57. The prices for the Blocks and the Tie Cables are mentioned in Annex H.
58. The Beneficiary will be responsible for all planning and dimensioning of the Blocks and Tie Cables and for the assignment of the positions on the Blocks.
59. The Beneficiary can order its dedicated Blocks through a firm order that is to be placed in accordance with the rules set out below. A firm order contains the requested number of Blocks, per type of Blocks and this for each Local Exchange / LDC. For every Block ordered, the associated number and type of Tie Cables and Cable Tray usage is automatically included. The Beneficiary indicates in its firm order the date at which it wants the Blocks and associated Tie Cabling to be available. This date will be at least 15 days later than the date of the notification of the firm order concerned in case the Beneficiary submitted a forecast, subject to the condition that Cable Trays are present and sufficient place is available on the MDF. If the Beneficiary concerned did not submit a forecast, the delivery date will be 25 days later than the date of the notification of the firm order. In all other cases which must be proved to the Beneficiary, special construction works will be needed and the Beneficiary will need to take into account a delivery time of maximum 40 working days. Proximus will confirm the receipt of every firm order immediately and inform the Beneficiary immediately when the installation of the Blocks and Tie Cabling is completed.
60. In the cases of Distant Colocation, the Tie cables will be ordered as Extended Tie cables. The Beneficiary will order additionally Connectors according to the terms and conditions of the relevant Service Descriptions in Annexes B.

3.2.1.2 Tie Cabling delivered by Beneficiary

61. For each firm order, the Beneficiary can indicate that he will provide Proximus with Tie Cabling himself. The terms and conditions, including the pricing in case the Beneficiary delivers the Tie Cabling can be found in the Annexes B and H. In each individual site, all Tie Cabling of a Beneficiary has to be under the same provisioning regime.

3.2.2 Billing and Accounting with respect to the ordering of Blocks, associated Cables and Cable Trays

62. For Blocks, associated Cables and Cable Trays, the Beneficiary will be requested to pay an upfront fee with the ordering of the equipment and the remaining part of the related cost after the delivery of this equipment. All orders submitted will be handled in line with the conditions determined in the Pricing and Billing & Accounting Annexes of the present Reference Offer.

4. Conditions with respect to Raw Copper Services

63. The Beneficiary is only allowed to use the indicated type of Raw Copper Loop for the purpose described in section 2.1.2.
64. All equipment used by the Beneficiary will comply with the R&TTE Directive or any Directive replacing the latter.
65. For the sake of clarity, it is to be noted that Proximus will not undertake customer care handling of the Beneficiary's End-Users. If Proximus receives requests from the Beneficiary's End-Users due to the inadequate handling of such requests by the Beneficiary, Proximus will not deal with them.

5. Ordering of Shared Pair Services

66. Proximus shall deliver access to the high bandwidth according to Beneficiary's orders submitted to Proximus in accordance with the rules set out in this Reference Offer.
67. The Beneficiary will order the Tie Cables, Connection Cables and Blocks prior to the request of Shared Pair Loops at a particular Proximus Local Exchange Building or Local Distribution Center. If at a certain moment, no more free positions on the Blocks or in the cabling are available, the Shared Pair Loop Requests issued by the Beneficiary with respect to the Proximus LEX or LDC concerned will be discarded, since the provisioning of these Shared Pair Loops cannot be performed.

5.1 Ordering of Shared Pair Loops

68. The terms and conditions for the ordering and provisioning of Shared Pair Loops are defined in "Annex E: Planning and Operations Manual".
69. Proximus will discard a Beneficiary's Request for a Shared Pair Loop, in particular but not limited to, in the following cases:
 - if no single line PSTN or ISDN BA Proximus Service is provided to the End-User concerned;
 - if the line is incompatible with the Proximus pair selection rules;
 - If no positions and/or pairs are available on the Beneficiary Blocks, (Extended) Tie Cables and Connection Cables.
70. Proximus will also discard the Beneficiary's Requests if a new pair selection is reasonably and/or technically not possible over the existing infrastructure, which must be detailed and proved in written form to the Beneficiary.
71. Proximus further reserves the right to discard Beneficiary's Requests for implementation of a Shared Pair Loop based on wrong format data. Further details can be found in "Annex E: Planning and Operations Manual".
72. When a Discard message is sent to the Beneficiary, the reason of the Discard is provided to the Beneficiary in the message.
73. Proximus does no longer accept any new order of BRUO Shared Pair over ISDN.

5.2 Ordering Blocks, associated Cables, Cable Trays and Splitters

5.2.1 Blocks, associated Cables, Cable Trays and Splitters

5.2.1.1 Blocks, associated Cables, Cable Trays and Splitters delivered by Proximus

74. The increments of Blocks, Cables and Splitters are to be ordered by the Beneficiary and will be installed by Proximus according to the terms and conditions of the relevant Service Descriptions in Annexes B.
75. The Beneficiary will be responsible for all planning and dimensioning of the Blocks, Tie Cables, Connection Cables and Splitters as well as for the assignment of the positions on the Blocks. The Beneficiary can order the indicated equipment through a firm order. A firm order contains the requested number of Blocks and Splitters for each Local Exchange and/or LDC. For every Block ordered, the associated number and type of Tie Cables, Connection Cables and Cable Tray usage is automatically included. The Beneficiary indicates in its firm order the date at which he wants the Blocks, associated Cables and Splitters to be available. This date will be at least 15 days later than the date of the notification of the firm order concerned in case the Beneficiary submitted a forecast, subject to the condition that Cable Trays are present and sufficient place is available on the MDF. If the Beneficiary concerned did not submit a forecast, the delivery date will be 25 days. In all other cases which must be proved to the Beneficiary, special construction works will be needed and the Beneficiary will need to take into account a delivery time of maximum 40 working days. Proximus will confirm the receipt of every firm order and inform the Beneficiary when the installation of the Blocks, the associated Cables and Splitters is completed.
76. In respect of the Splitters, it is to be noted that the Splitters have to be defined per number of 24 Splitters as being Splitters for PSTN lines. Proximus no longer accepts orders of Splitters for ISDN lines.

5.2.1.2 Tie Cabling delivered by Beneficiary

77. For each firm order, the Beneficiary can indicate that he will provide Proximus with Tie Cabling himself. The terms and conditions, including the pricing in case the Beneficiary delivers the Tie Cabling, can be found in the Annexes B and H. In a particular site, all Tie Cabling of a Beneficiary has to be under the same provisioning regime.

5.2.2 Billing and Accounting with respect to the ordering of Blocks, associated Cables, Cable Trays and Splitters

78. For Blocks, associated Cables, Cable Trays and Splitters, the Beneficiary will be requested to pay an upfront fee with the ordering of the equipment and the remaining part of the related cost after the delivery of this equipment. All orders submitted will be handled in line with the conditions determined in the Pricing and Billing & Accounting Annexes of the present Reference Offer.

6. Conditions with respect to Shared Pair Services

79. The Beneficiary is only allowed to use the indicated type of Shared Pair Service for the purpose described in section 2.2.2.
80. All equipment used by the Beneficiary will comply with the R&TTE Directive or any Directive replacing the latter.
81. For the sake of clarity, it is to be noted that Proximus will not undertake customer care handling of the Beneficiary's End-Users. If Proximus receives requests from the Beneficiary's End-Users due to the inadequate handling of such requests by the Beneficiary, Proximus will not deal with them. If these End-Users are using the PSTN or ISDN Proximus Service, under a contractual relationship with Proximus, requests about that service will be handled by Proximus.

7. Usage of a unique service identifier in the Operational Processes

82. For Provide and Change Operator orders Proximus will return the service identifier (circuit ID) in the Technical Order Confirmation (TOC) and Order Closed (OC) messages. The circuit ID (CID) identifies the broadband service configured on the copper pair.
83. Communicating such unique service identifier on the bills and contracts sent by the Beneficiary to the End-User for the services provided on the basis of the present Reference Offer will help facilitate the change of operator on the Proximus network. Such communication will allow the End-User to provide the recipient operator with the circuit ID to enable a seamless Change Operator process.
84. To that end, the service identifier is a mandatory input for Change Operator orders. The expected value is the circuit ID. In case the latter is unknown, the expected value is 'UNKNOWN'. Should the circuit ID be unknown, this increases the importance of the validation by the Beneficiary with the End-User of the installation address as determined through the MSO interface during the Pre-Checks phase.
85. For Migrate, Change, Cease and Move orders the service identifier (circuit ID) is a mandatory input in the Provide and Cease parts of the order.
86. As long as the broadband service remains active for the same Beneficiary, the service identifier will remain the same. For further details on the service identifier behavior, reference is made to the "MSO User Guide" documented on the secured wholesale personal page.
87. The Beneficiary will also provide in each repair case the service identifier that was provided by Proximus in the provisioning process.

8. Operation of ULL Services

88. The Beneficiary is given access to Proximus Business & Operational Support Systems (BSS/OSS) for the ordering, installation and repair of ULL Services. Information concerning the way to access the Proximus IT systems (via a GUI or SOA interface) is included in Annex F.
89. In this respect the prices charged (if any) concerning the access to the Proximus IT systems and databases & information retrieval are set out in Annex H (Pricing and Compensations).
90. The rules to be followed when planning and ordering ULL Services as well as launching repair actions on these Services are described in Annex E (Planning & Operations Manual).
91. The quality targets pursued by Proximus in the provisioning and repair of ULL Services and the conditions needed to achieve these quality targets are described in a Service Level Agreement (SLA) to be concluded between Proximus and the Beneficiary. Reference is made to Annexes G (SLAs).

9. Colocation Services

92. Proximus offers the following types of Colocation Services at Proximus Local Exchange buildings: Physical Colocation, Distant Colocation and Virtual Colocation. Depending on the specific situation, Proximus offers either one or all types of Colocation Services.
93. Virtual Colocation is only offered on a project basis in case neither Physical Colocation, nor Distant Colocation, is possible. Both process and implementation will be done on a case by case basis. Virtual Colocation implies that the equipment to be collocated is purchased by the Beneficiary from the same vendor as the one from which Proximus purchases a similar type of equipment for a similar use within Proximus. The equipment to be collocated will be installed by Proximus or by staff working under Proximus' responsibility. The Beneficiary will also make available to Proximus the spare parts, test equipment and the documentation needed to allow Proximus staff to perform the requested maintenance activities.
94. As far as Physical Colocation (with separate room or co-mingling) is concerned, the Beneficiary may receive access to the Proximus premises in two different ways: by badge access (Physical Colocation with separate room) or by escorted access (Physical Colocation under the form of co-mingling). The choice is his.
95. Proximus offers the following types of Colocation Services at Proximus Local Distribution Centers: LDC Building Colocation, LDC Container Colocation, LDC Cabinet Colocation and LDC Distant Colocation. Depending on the specific situation, which has to be proved to the Beneficiary, Proximus offers either one or all types of Colocation Services. The relevant types of colocation are described in the relevant Colocation Agreements.

10. Migrations

96. Reference is made to Annex K of the present Reference Offer.

11. Pricing and Billing of Proximus ULL Services

97. The pricing of ULL Services covered by the present Reference Offer for ULL can be found in Annex H. Information concerning Billing and Accounting for ULL Services is included in Annex D.

12. Evolution of the ULL offer

98. As most of the European operators, Proximus is in the process of adapting and upgrading its telecommunication infrastructure. In particular, Proximus will implement where necessary the modifications resulting from the evolution of international standards (ITU-T and ETSI). These network adaptations may have an impact on the ULL Services offered. In such case, Proximus will respect the same notification timers as those defined in the Annex "Planning & Operations" of the present Reference Offer regarding the IT projects. The BIPT will be informed in any case and can allow exceptions concerning the periods of notice.
99. Proximus has the right to close a Local Exchange Building and stop the provision of ULL Services at that locality. The closing process will respect the following rules:
- Proximus will notify the Beneficiaries of the closure of the Local Exchange Building and will first inform BIPT. The Local Exchange Building will in any case remain open for a period of minimum 2 years after the announcement of the closure to BIPT.
 - When no ULL Services are provided in the building, the Local Exchange Building will in any case remain open for a period of minimum 1 year after the announcement of the closure to BIPT. During this transition period of 1 year, no new demand for colocation will be accepted by Proximus.
 - If Proximus wants to close the Local Exchange Building before the end of the 2 years period foreseen in the first point of this paragraph, an alternative agreement in good faith discussion will be concluded with the concerned Beneficiaries.
100. Proximus activates "ADSL from ROP" to move (Re)ADSL(2+) based services out of a Local Exchange Building that is planned to be closed but also may activate "ADSL from ROP" on ROPs. Activation of "ADSL from ROP" limits the provision of ULL Services that pass the street cabinet served by this ROP to Type 1 and Type 3 ULL Services. The activation process will respect the following rules:

Proximus will notify the Beneficiaries of a planned activation of "ADSL from ROP" at least 6 months beforehand for the following cases:

- ROPs connected to a street cabinet without active BRUO lines;
- activation of (Re)ADSL(2+) on IP-DSLAMs installed in LEXs/LDCs.

Proximus will notify BIPT and the Beneficiaries of a planned activation of "ADSL from ROP" at least 12 months beforehand for:

- ROPs connected to a street cabinet with active BRUO lines, including ADSL services over ULL -type 2 lines.

Proximus will coordinate with the Beneficiary the migration to the ROP of LEX-based ADSL services (e.g. BROBA services or ADSL services over ULL -Type 2 lines).

If Proximus wants to activate "ADSL from ROP" before the end of the notification period, an alternative agreement in good faith discussion will be concluded with the concerned Beneficiaries. Proximus will motivate shortened notification periods that are unavoidable due to external stringent deadlines.

Annexes to the Reference Offer

101. The following annexes have been attached to the present Reference Offer:

Annex A: General Terms and Conditions

Annexes B: Service Descriptions

Annex B1.1: Service Description 2010 – Proximus access to the Raw Copper Loop – Existing single pair & Small Network Adaptations

Annex B1.2: Service Description 2030 – Proximus access to the Raw Copper Loop – Connection to the colocation area – Physical Colocation

Annex B1.3: Service Description 2035 – Proximus access to the Raw Copper Loop – Connection to the colocation area – Distant Colocation

Annex B1.4: Service Description 2040 – Proximus access to the Raw Copper Services – Delivering of Tie Cable by Beneficiary

Annex B1.5: Service Description 2045 – Proximus access to the Raw Copper Loop – Connection to the colocation - Local Distribution Center (LDC)

Annex B2.1: Service Description 3010 – Proximus access to the Shared Pair Service – Existing single pair

Annex B2.2: Service Description 3030 – Proximus access to the Shared Pair Service - Connection to the colocation area – Physical Colocation

Annex B2.3: Service Description 3035 – Proximus access to the Shared Pair Service - Connection to the colocation area – Distant Colocation

Annex B2.4: Service Description 3040 - Proximus access to the Shared Pair Service – Delivering of Tie Cable by Beneficiary

Annex B2.5: Service Description 3045 – Proximus access to the Shared Pair Service – Connection to the colocation - Local Distribution Center (LDC)

Annex C: Technical Specifications

Annexes D: Billing and Accounting documents

Annex D1: Billing and Accounting document

Annex D2: Prepayment Terms and Conditions

Annex E: Planning and Operations Manual

Annex F: Business & Operational Support Systems (BSS & OSS)

Annexes G: Service Level Agreement (SLA)

Annex G1: Basic Service Level Agreement

Annex G2: Improved Service Level Agreement for Repair

Annex H: Pricing and Compensations

Annex I Colocation Agreement

Void - Reference is made to the Colocation Offer

Annexes J: Initial Information available to Operators

Annex K: Migrations to BRUO and Bitstream

Illustration of Access to the RC and SP Services

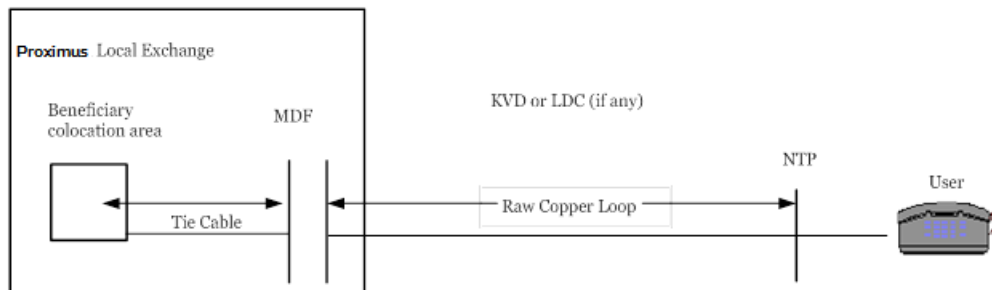
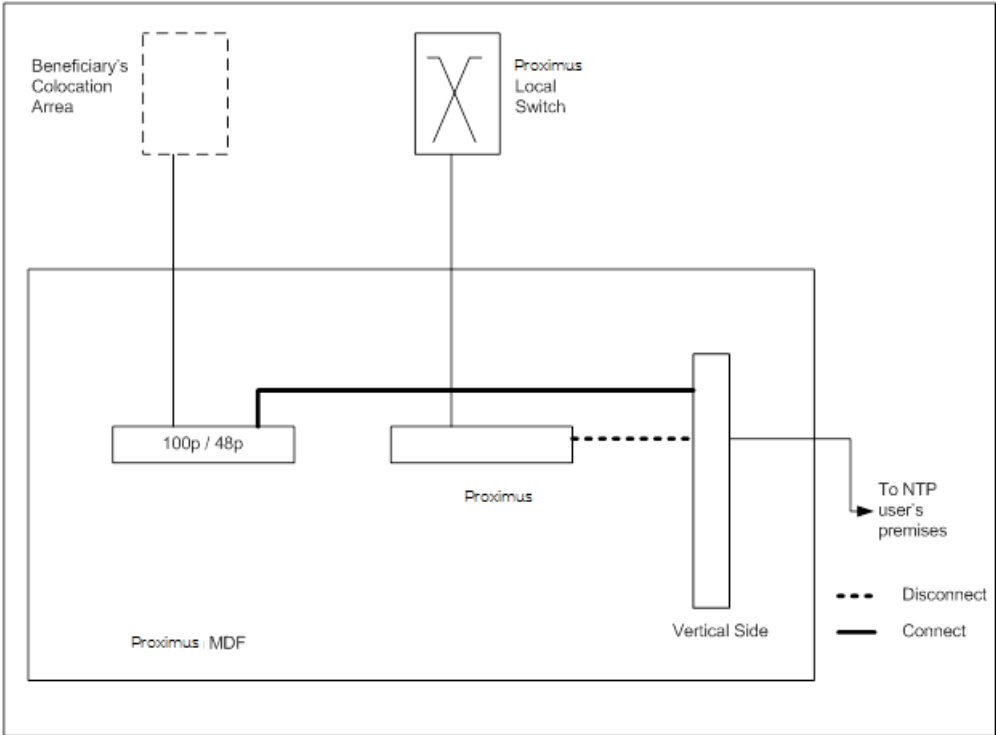


Fig. 1: Access to a Raw Copper Loop



Proximus Local Exchange Building

Fig. 2: Example of access to the Physical Colocation at Proximus MDF

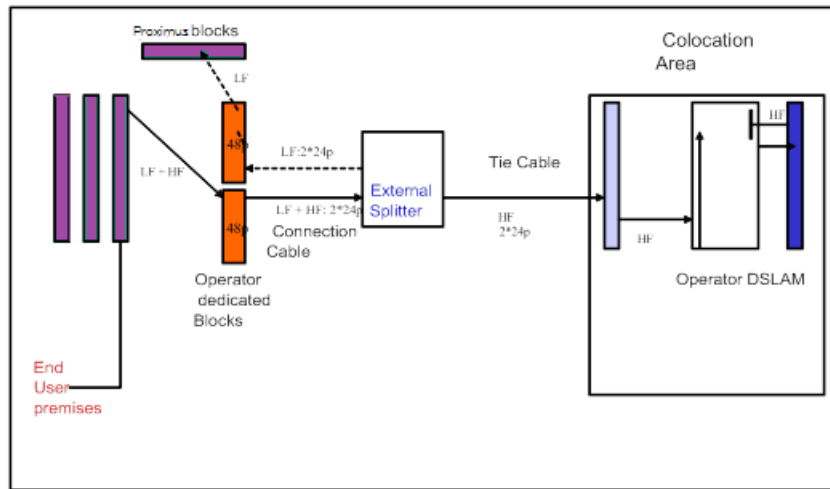


Fig. 3: Example of access to the Shared Pair and Raw Copper + Splitter Services (Splitters provided by Proximus)