



PROXIMUS REFERENCE INTERCONNECT OFFER

VoIP Interconnection offer

Valid as from 15/03/2018

Table of contents

Table of contents.....	2
1 Introduction.....	4
1.1 Scope of the VoIP Interconnection offer	4
1.2 Limits of the VoIP Interconnection offer	5
2 VoIP Interconnect Architecture	6
2.1 General.....	6
2.2 VoIP Interconnect Architecture	6
2.3 List of Access Points offered by Proximus.....	7
3 Technical conditions.....	8
4 VoIP Interconnect Transport products.....	9
4.1 Responsibilities for the dimensioning the VoIP Interconnections	9
4.2 Implementation of VoIP Interconnect links	10
4.2.1 Customer-sited Interconnect Link (CSIL).....	10
4.2.2 Proximus-sited Interconnect Link (PSIL).....	10
5 Services.....	11
5.1 Terminating services	11
5.1.1 Calls to Proximus geographic numbers and split charging numbers. 11	
5.1.2 Calls to Emergency Services	11
5.2 Collecting Services	12
5.3 Access Service to particular Value Added Services	12
5.4 Calls to Proximus Mobile Numbers	13
6 Quality of the interconnect service	13
6.1 Traffic management	13
6.2 Speech quality	14
7 Evolution of the Interconnect offer.....	14
8 Organized planning for Interconnect Services.....	14
8.1 Testing Planning.....	15

8.2	Transition period.....	16
9	Financial Guarantees.....	17
9.1	General Principle – Prepayment.....	17
9.2	Sufficient Creditworthiness.....	17
9.3	Payment failure.....	18
9.4	Netting Agreement.....	18
	ANNEX 1 Practical Information.....	19
	ANNEX 2 Pricing.....	20
	ANNEX 3 Planning & Operations.....	21
	ANNEX 4 Service Level Agreement.....	22
	ANNEX 5 Definitions.....	23

1 Introduction

1.1 Scope of the VoIP Interconnection offer

The present VoIP Interconnect Offer (hereafter “Offer”) deals with the interconnect services Proximus offers to parties notified as Telecommunications Operator (hereafter “Operator” or “OLO”), in order to allow end-users connected to the public voice network of that Operator to communicate with end-users connected to Proximus’ Network via the IP protocol.

A party notified as Telecommunications Operator means an Operator which fulfils all conditions required by the Regulatory Framework for electronic communication and which provides at least the activities for which the Operator is requesting the services included in the present Offer.

This offer is addressed to Operators having obtained numbering capacity from BIPT and having at least two Access Points available in Belgium.

The present Offer only deals with the introduction of voice interconnection between networks based on IPv6 protocol. The interconnection offer described in the BRIO dated 2006 (and its several addenda) remains applicable for interconnection based on TDM¹ technology.

The Interconnect Services included in this Offer encompass the following services, as defined and described below and under the technical conditions referred to in this document:

- Terminating Services for :
 - Calls to Proximus geographic numbers
 - Calls to Proximus Split Charging Numbers
 - Calls to Emergency Numbers
 - Calls to Proximus mobile numbers on Proximus’ mobile network
- Collecting Access Services providing access to the following services offered by the Operator:
 - Basic telephony services by means of a CSC/CPS
 - Access Service for Calls to Value Added Services of the Operator
- VoIP Interconnect Transport Products

On a commercial basis Proximus offers other interconnect services such as transit services for calls between fixed or mobile networks. These services are not described in this Offer.

¹ Time Division Multiplexing

1.2 Limits of the VoIP Interconnection offer

The conditions for Interconnection contained in the present Offer are applicable as from the date mentioned on the first page (for the prices reference is made to the Pricing annex which is part of the present Offer). Modifications can be made to these prices or conditions subject to the conditions set out in the applicable regulatory framework if any. Such modifications will be included in this Offer through the publication of a new version of this Offer or by mean of an addendum or by publishing an updated version of the Annex Pricing.

For the sake of clarity, this Offer does not cover the following calls:

- Calls to Proximus numbers (geographic and non-geographic) which are ported to other Networks.
- Calls to Proximus Mobile number which are ported out to other Mobile Networks.

These calls can be covered via a commercial agreement with Proximus related to transit services.

As a more general rule, this Offer does not consider aspects related to number portability.

Each Interconnect Agreement concluded with an Operator may include specific services negotiated between the two Parties which are not covered in the present Offer. Examples of such specific services, which Proximus can offer at the request of the Operator, are the conveyance of calls generated by the Operator's customers to the networks or facilities of other operators or of service providers with whom Proximus has appropriate contractual relations or access to Operator Assistance Services. The list of available services can be obtained by the Operator after the signing of a confidentiality agreement.

Any interconnect service supplied by an Operator to Proximus will be included in the Interconnect Agreement between Proximus and that Operator on the basis of the agreement reached between these Parties.

Proximus is not responsible for the content of the communications conveyed through its Interconnect Services.

This Offer only applies to services that are explicitly referred to in this Offer. In case particular applications are indicated in the definition of some services (see Annex Definitions), it is only applicable for the applications concerned. In the event of a request for interconnection, in respect of services that are not explicitly defined and covered by this Offer, or that are intended to be used for other applications than the ones described in this Offer, Proximus will examine and indicate to the requesting Party whether the conditions set out in the present Offer apply to the services concerned or whether there are objective criteria differentiating the different services at issue, or whether this service is not considered to be in the scope of the present Offer.

2 VoIP Interconnect Architecture

2.1 General

The Proximus Network has been divided for VoIP Interconnection purposes into 3 Access Areas (fig.1). Proximus provides in each Access Area 2 Access Points. VoIP Interconnection to Proximus' Network is only possible at sites where Access Points are located.

The sites in the Operator's public Network at which VoIP Interconnection to that Network is possible, are also considered as "Access Points". Where necessary to avoid confusion, a distinction is made in the present Offer between "Proximus Access Points" and "Operator Access Points".

The interconnection of networks is implemented by means of an Interconnect Link. The Demarcation Point is located on the Interconnect Link at the connection panel and is the physical point where both Networks are interconnected and represents as such the boundary between the domains of responsibility of Proximus and the interconnected Operator.

Each of the Access Points are fully controlled by the Operator concerned. The technical requirements of the equipment at the Demarcation Point are defined in the "Technical Specifications".

2.2 VoIP Interconnect Architecture

The network of Proximus and the Operator will be interconnected via at least two (2) Interconnect Links, this can be a Customer-Sited Interconnect Link and/or a Proximus-Sited Interconnect Link (see sect. 4).

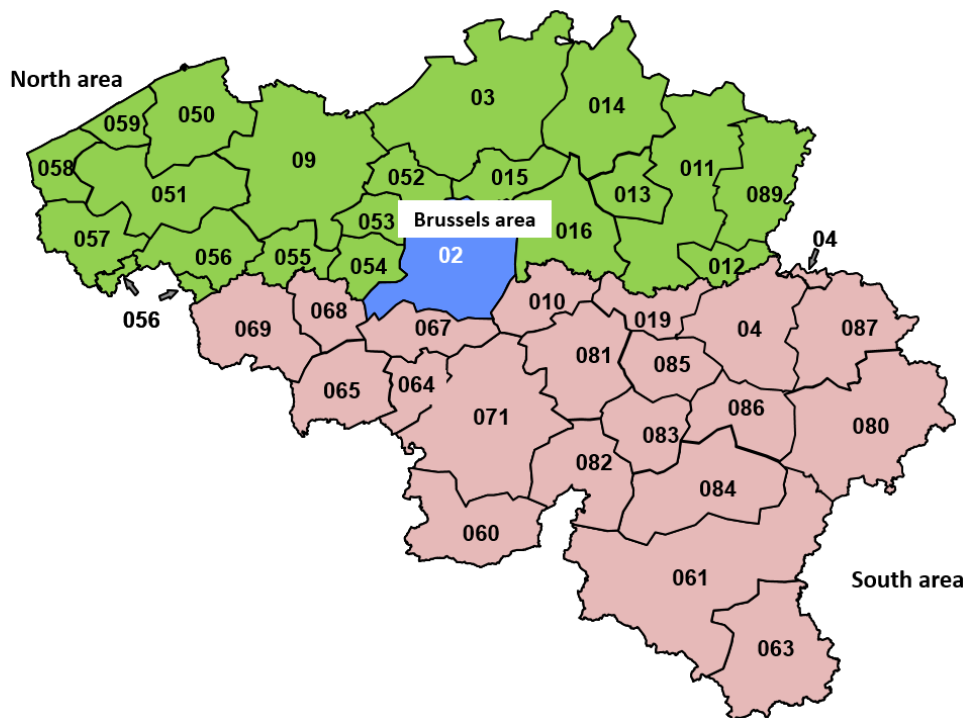
A Customer-Sited Interconnect Link (CSIL) is installed by Proximus and terminates in a POI of the Operator. Each Operator must offer at least two Access Point in Belgium. This involves access to the building and the room, floor space, power and cooling. It is highly recommended to align the technical requirements of the equipment at the Demarcation Point with the "Technical Specifications" for VoIP Interconnect. A Proximus-Sited Interconnect Link (PSIL) is installed by the Operator and terminates in a POI of Proximus. The list of Access Points offered by Proximus can be found here below.

The IP Interconnect architecture must be 1+1 redundant (see the Technical Specifications). One link will be the active one, while the other link will be in passive mode. In the case that the active link should go down, the passive link must be able to carry the complete interconnect traffic. This setup will be used for Operator Interconnect Traffic (OIT) (with 2 different POIs) as well as for Proximus Interconnect Traffic (BIT) (also with 2 different POI, but can be the same as for OIT) traffic.

Although all interconnect traffic can be delivered via one Access area, Operators with a large² amount of traffic should interconnect to more than one Access Area, building two or three times (1+1) redundancy. In this way, traffic will be better spread over multiple Areas and the level of redundancy will be increased.

² Operator requesting capacity above 1G

Fig. 1 IP Access Areas



2.3 List of Access Points offered by Proximus

Street	Nr	ZIP Code	City Name	Colocation name	Access Area
Karel Coggestr	2	2600	Berchem (Antwerpen)	BKC/xxx	Area North
Sint-Niklaasstraat	27	9000	Gent	GEN/xxx	Area North
Sentier de la Limite		6060	Gilly (Charleroi)	GIL/xxx	Area South
Rue de l'Universite	30	4000	Liège	LGE/xxx	Area South
Ruisbroekstraat	17	1000	Brussels	STR/xxx	Area Center
Broekstraat	72	1000	Brussels	MAR/xxx	Area Center

Proximus and the Operator will agree on the best suited Access Points for establishing the VoIP interconnection.

3 Technical conditions

Technical conditions for the VoIP interconnect services are included in the Technical Specifications which are available on the Proximus Wholesale website.

These includes the following key requirements:

- Support of the SIP signalling protocol;
- In case of VoIP interconnection with the Proximus fixed network, the Operator must support the G.711, A-law codec;
- Offer at least 2 IPv6 subnets wherein an IBCF and an IBGF is addressable.
- In case of VoIP interconnection with the Proximus mobile network, the Operator must support the standard codec for mobile "AMR". In case the operator does not support this codec, an additional transcoding service can be offered on a commercial basis for which an additional cost will be charged.

For more details we invite you to refer to the Technical Specifications available on the Proximus Wholesale website to make sure you consult the latest versions.

4 VoIP Interconnect Transport products

The VoIP interconnection between Proximus and the Operator is realised through physical interconnect links. Over these interconnection links, separate VLANs are reserved for Proximus traffic (BIT) and Operator traffic (OIT). The Operator can choose the type of physical links and the capacity based on his traffic needs and the number of simultaneous sessions (for more details on the available bandwidths and the prices, please refer to the pricing Annex). The sections below describe the two types of possible physical connections available and the responsibility of each Party.

4.1 Responsibilities for the dimensioning the VoIP Interconnections

Each Operator is responsible for the dimensioning of the VoIP Interconnections (VLAN, SIP trunk bandwidth and simultaneous sessions) required for the conveyance of its own traffic as defined below.

An Operator requesting Interconnection with Proximus is responsible for the dimensioning of the VoIP Interconnections conveying the following Traffic Flows:

- the traffic conveyed through the Operator's Access Point and handed over at the Proximus Access Point in order to use Proximus' Terminating Services;
- the traffic generated on the Proximus Network conveyed to the Operator's Access Point through the Collecting Access Services;
- the traffic generated on the Proximus Network conveyed to the Operator's Access Point through the Access Service for Calls to Value Added Services numbers of the Operator.

The dimensioning of the VoIP Interconnections for which Proximus is responsible and which carry non-mature traffic as defined in the Planning and Operations document will take into account the traffic forecasting data provided by the Operator.

As far as the quality of the Terminating Services, the Collecting Access Services and the Access Service for Calls to Value Added Services numbers of the Operator, is concerned, Proximus shall not be responsible for an inadequate dimensioning of the VoIP Interconnections for whose dimensioning the Operator is responsible.

Both Proximus and the Operator commit themselves to dimension the SIP trunks to an engineering blocking objective of maximum 1% during busy hours. Other specific rules will be followed for the dimensioning of (parts of) SIP trunks conveying special types of Traffic (e.g. Calls to Emergency Services, explosive traffic...). The capacity of a VoIP Interconnections shall be dimensioned to carry all related SIP trunks.

4.2 Implementation of VoIP Interconnect links

The physical linking between the Networks of Party-A and Party-B is based upon the installation of an Interconnect Link by Party-A to an Access Point of Party-B.

This section describes the two types of VoIP Interconnect Links available.

4.2.1 Customer-sited Interconnect Link (CSIL)

The entire Interconnect Link is provided by Proximus (Party-A). Therefore Proximus will install the relevant transmission equipment inside the Operator's building provided that a number of minimum conditions are met. In that case, the Demarcation Point will be located in that Operator's building.

The Operator (Party-B) can hire transport capacity on a Customer-sited Interconnect Link to carry its OIT traffic (for the prices see Annex Pricing).

4.2.2 Proximus-sited Interconnect Link (PSIL)

The entire Interconnect Link is provided by the Operator (Party-A). In this case the Operator's transmission equipment is located in the Proximus premises. The Demarcation Point is located at the end of the indoor cable provided by Proximus connecting the Operator's transmission equipment to the Proximus Access Point, at the Operator side (including the attached connector if this connector has been delivered and fixed by Proximus). The connection of the cable to the equipment of the Operator is outside the responsibility of Proximus.

The technical, operational, billing, planning and financial conditions for the Colocation Services provided by Proximus to the Operator are described in the Colocation Agreement concluded between the Operator and Proximus for each Proximus building where Colocation Services are provided to the Operator. The Colocation Agreement is available on Proximus secured website.

The price of the indoor cable connection connecting the transmission equipment of the Operator located in its Colocation Area to the Proximus Access Point is indicated in the Annex Pricing.

An Operator that has installed Proximus-sited Interconnect Links is allowed to make these Proximus-sited Interconnect Links available to other Operators of which the Network is to be interconnected with the Proximus Network.

5 Services

5.1 Terminating services

5.1.1 Calls to Proximus geographic numbers and split charging numbers

The Voice Telephony traffic generated by end-users on the Operator's Network and directed to the Proximus Fixed Network is to be conveyed from an Interconnected Operator Access Point to a Proximus Access Point.

The prices applicable to the Terminating Service for Calls to Proximus geographic numbers or Split Charging numbers which are not ported outside the Proximus Network are indicated in the Annex Pricing.

The prices indicated are also applicable to Calls to non-Proximus geographic numbers or Split Charging numbers ported to the Proximus Network, which are handed over by the Operator at a Proximus Access Point with a routing number providing all the necessary information to route the Calls concerned to their final destination in the Proximus Network.

The Operator is responsible for the setting of the retail prices and for the invoicing of its end-users for the Calls to Proximus geographic numbers or Split Charging numbers.

The Operator shall ensure the transmission of the CLI and that the CLI has been screened in the network in which the Call was originated, against the Relevant Numbering Scheme. Network screening shall imply that there will be at least verification by the Operator that the CLI concerned is accurate and that the necessary steps are taken to ensure that the original and appropriate CLI has not been modified or manipulated.

5.1.2 Calls to Emergency Services

5.1.2.1 Calls to 3 or 6 Digits Emergency numbers

The access to 3 or 6 Digits Emergency Services Numbers offered by Proximus covers the termination by Proximus of Calls in pre-determined installations of the Emergency Services all over Belgium. Different numbers of three or six digits are allocated for different types of Emergency Services. The present section of this Offer covers the services of calling the emergency numbers, described in the Royal Decree of 02/02/2007. Calls to 3 or 6 Digits Emergency Services are free of charge for the calling end-user in accordance with the regulatory framework.

Given the nature of the 3 or 6 Digits Emergency Services, the access to these services by interconnected Operators is subject to a number of technical conditions. In particular, the Operator will have to insert some specific information in the "called party number" parameter of the signalling messages sent to the Proximus Network as described in the relevant technical specifications. This information includes in particular the identity of the emergency dispatching centre that needs to treat the call and which is determined by the competent authorities. The Network of the Operator must pass the complete and correct CLI to the Proximus Network. In addition, these Emergency Services must be provided with an

access to a database including the location and the identity of the calling party. This access by the emergency dispatching centres could be based on an access to a Proximus database which would then integrate the necessary data regarding the Operator's end-users and with regard to which the Parties will have to enter into an agreement covering, as a pre-condition for the provision by Proximus of the services dealt with in the present section, the technical aspects of this integration. The Operator remains fully responsible for the quality and the updates of the information provided to the Emergency Services.

The Operator shall take any measurement to give the highest priority to emergency calls under conditions of high load.

The prices applicable for the termination by Proximus of Calls to the 3 or 6 Digits Emergency Services are set out in the Annex Pricing. The prices indicated include the access by the Emergency Services to the Proximus database which integrates the data regarding the Operator's end-users. In case an Operator would be authorised to provide the latter data to the Emergency Services concerned in a manner independent from Promus's database, Proximus would apply to that Operator the same prices as those indicated in the Annex Pricing for the termination of Calls from that Operator's Network to the Emergency Services.

5.1.2.2 Calls to Emergency Services which are not addressed by 3 Digits numbers

The prices applicable for the termination by Proximus of Calls to Emergency Services which are not addressed by a 3 digit number are set out in the Annex Pricing

5.2 Collecting Services

Collecting Access Services are available via VoIP interconnect under the conditions and pricing set out in the BRIO 2006 and its addenda.

Calls linked to these services which are handled via the VoIP interconnection will be billed according to the billing conditions for VoIP Interconnection.

5.3 Access Service to particular Value Added Services

Access Service to particular Value Added Services of the Operator are available via VoIP interconnect under the conditions and pricing set out in the BRIO 2006 and its addenda.

Calls linked to these services which are handled via the VoIP interconnection will be billed according to the billing conditions for VoIP Interconnection.

5.4 Calls to Proximus Mobile Numbers

The Voice Telephony traffic generated by end-users on the Operator's network and directed to the Proximus Mobile network is to be conveyed from an Interconnected Operator Access Point to a Proximus Access Point.

The prices applicable to the Mobile Terminating Service for Calls to Mobile numbers on the Proximus Network which are not ported outside the Proximus Network are indicated in the Annex Pricing. In case the operator does not support the required codec, an additional transcoding service can be offered on a commercial basis for which an additional cost will be charged.

The prices are also applicable to Calls to non-PXS mobile numbers ported to the Proximus Network, which are handed over by the Operator at a Proximus POI with a Routing Number providing all the necessary information to route the Calls concerned to their final destination in the Proximus Network.

The Operator is responsible for the setting of the retail prices and for the invoicing of its end-users for the Calls to Mobile numbers on the Proximus Network.

The Operator shall ensure the transmission of the CLI and that the CLI has been screened in the network in which the Call was originated, against the Relevant Numbering Scheme. Network screening shall imply that there will be at least verification by the Operator that the CLI concerned is accurate and that the necessary steps are taken to ensure that the original and appropriate CLI has not been modified or manipulated.

6 Quality of the interconnect service ³

6.1 Traffic management

Proximus dimensions the internal and interconnect resources of its network to carry the forecasted traffic with a loss of maximum 1% during peak hour, based on the Erlangen-B tables.

In the event that a particular situation is susceptible to disturb temporarily the conveyance of traffic within its Network, Proximus could be constrained to implement the classical measures of traffic management in order to limit its effect on the quality of the service provided to its customers as well as to the interconnected Operators. These measures of traffic management are applied to Proximus and Operator traffic without discrimination. The target figures given above do not include cases which are caused by the said measures of traffic management. The Parties shall inform each other about the operational traffic management strategies to protect the quality of service and to alleviate short term overloads due to abnormal traffic patterns or failed facilities.

³This Chapter does not apply to the connectivity services.

6.2 Speech quality

Proximus applies Call Admission Control on agreed bandwidth and number of simultaneous calls, in order to guarantee the expected speech quality. The expected speech quality depends on the negotiated codecs (narrowband or wideband).

7 Evolution of the Interconnect offer

Proximus will inform the Operators about the changes in its infrastructure that have an effect on the Interconnect Services Proximus offers. In as far as such technical changes are concerned that have a foreseeable impact on the Interconnect Services, Proximus will communicate such information as soon as reasonably practicable and not later than 12 month in advance of the planned changes (except if the change concerned is due to unforeseen circumstances and therefore it does not allow Proximus to respect the above mentioned period).

8 Organized planning for Interconnect Services

Interconnect negotiations can only start after the transmission to Proximus of a Statement of Requirement (SoR) document duly signed (this document is available on request or on the Proximus Wholesale website-secured section). This document represents the official request from the Operator to start negotiations in view of establishing an interconnection with Proximus.

The bringing into service of an Interconnection will be subject to the signature of an Interconnect Agreement with Proximus covering the services to be provided and, in the event of the extension of the services included in an existing Interconnect Agreement, the bringing into service of additional services. Any bringing into service of an additional Interconnect Service is subject to the conclusion of a complete commercial agreement concerning the additional Interconnect Service concerned. The reception by Proximus of the confirmation that the Operator has been granted the adequate type of authorization entitling it to the benefit of the present Offer is one of the prerequisites for the conclusion of an Interconnect Agreement.

In order to have an optimized planning of the resources needed for the bringing into service and the subsequent phases of an Interconnection and in order to preserve the appropriate dimensioning of Proximus' Network enabling Proximus to handle the interconnect traffic as well as its own traffic in a proper manner, the Operator will have to supply forecasting data for traffic and Capacity according to the procedures, which are described in detail in the "Planning & Operations Document". The information to be communicated to Proximus related to the forecasting of the interconnect capacity to be delivered by the Operator shall be treated as confidential by Proximus and shall only be used for the purpose for which it is transmitted. The Proximus unit that receives the information will not communicate it to other units within Proximus that are not concerned with the interconnection procedures neither to Proximus' subsidiaries.

8.1 Testing Planning

In order to establish a VoIP interconnection, being for an operator having already a TDM interconnect (“existing Operator” here below) with Proximus or for a new interconnect (no TDM interconnect currently with Proximus), a number of tests should be passed before proceeding to the migration (from TDM to IP) or the bringing into service of the VoIP interconnection.

The tests are grouped in test phases, each of them requires a 2-months timeslot (more information on the content of each testing phase is described in the Planning and Operational document):

- Test Phase 1: Connectivity tests
- Test Phase 2: Protocol tests
- Test Phase 3: Service Plan and billing tests

The selection of the testing timeslots will be done in collaboration with the Operator.

Specific measures for the launch of the VoIP interconnect

In order to have optimal allocation of testing resources, Proximus will provide on its website a “Testing planning” which will contain the available testing timeslots. Proximus will foresee 3 different types of timeslots:

- Reserved for new Operator: Timeslot for a new Operator to set-up VoIP interconnect
- Migration existing Operator: Timeslot for an existing Operator migrating to VoIP Interconnect
- Troubleshooting: Reserved Timeslot for eventual troubleshooting or re-testing

Proximus will grant a delay of 30 calendar days (as from the date this Offer is published on the Proximus Wholesale website) to the Operators interested to set up a VoIP interconnection to return the SoR completed, signed and approved by Proximus. After this delay, Proximus will analyse the received SoRs. In case Proximus receives more requests for VoIP interconnection or migration compared to the available testing slots, Proximus will prioritise the requests based on the answers provided to the questionnaire annexed to the SoR reflecting the readiness of the operator to establish a VoIP interconnection.

In case no prioritisation for the testing slots is possible based on that questionnaire, Proximus will consider the date of the reception of the completed and accepted SoR sent by the Operator to prioritise the requests. If the Operator is not ready for the testing of VoIP interconnection for some essential aspects linked to the conditions set in the present Offer, Proximus will refuse the SoR.

After this initial delay of 30 days, the SoR provided by an Operator will be analysed case by case and testing timeslots will be provided based on the available slots and the degree of readiness of the Operator as evaluated based on the questionnaire.

In order to respect the testing planning agreed with the Operators, the reserved testing windows needs to be respected by each operator. In case the Operator appears not to be ready or capable to comply with the different test phases in the agreed planning, Proximus will, if needed, grant the slots allocated to this operator to another Operator.

8.2 Transition period

An Operator that applies for migration from TDM interconnect to VoIP interconnect, must be able to move all its traffic from the old to the new interconnect. The old and the new interconnect will be used in parallel during only a short transition period (typically a few weeks). No separate routing rules will be put in place for analogue end-points and for IP end-points in the Operator's network.

9 Financial Guarantees

9.1 General Principle – Prepayment

Notwithstanding anything to the contrary in the Interconnection Agreement and to guarantee the payment by OLO for due Interconnect Services provided by Proximus, billed (invoice & statement) on monthly basis with a 30 days payment term as of bill date, OLO will execute a prepayment to Proximus. The prepayment amount will be set to one month of average of latest trimester's Interconnect Services billed amounts to:

- 1) OLO solely.
- 2) both Parties if Netting Agreement is signed with OLO.

For OLO's not yet in service and concluding a new Interconnect Agreement, the first prepayment shall amount to at least 75% of the ordered VoIP Interconnect Transport (see Annex Pricing), to be paid within 10 working days from the start of the Agreement.

If the Operator disagrees with a bill received from Proximus, it must notify in writing Proximus thereof before the payment due date of concerned bill and in accordance with the relevant provisions of the Interconnection Agreement.

9.2 Sufficient Creditworthiness

Prepayment will not be required as long as one of below options is met:

- 1) OLO has sufficient creditworthiness, as evidenced by either of the following alternatives:
 - a) A rating equal to or better than [Moody's rating](#) "Ba2";
 - b) a similar rating to Moody's "Ba2", provided that
 - i) such rating is generally accepted by the market as giving similar reliability as Moody's and
 - ii) such rating is generally reviewed and regularly updated.
- 2) OLO provides an irrevocable and unconditional parent corporation guarantee for the debts incurred by OLO in the application of the Interconnect Agreement and provided that the parent company issuing the guarantee has sufficient creditworthiness as defined above.
- 3) OLO provides Proximus with an irrevocable and unconditional bank guarantee on first demand issued by a reputable financial institution established in the EU, issued for a minimum period of three years and for an amount set to three months of average of latest semester's Interconnect Services billed amounts to:
 - a) OLO solely.
 - b) both parties if Netting Agreement is signed with OLO.
Proximus has the right to require an adaptation of the deposit amount every semester, for which OLO will undertake necessary steps to ensure adaptation within 10 working days.
- 4) OLO has constituted a Deposit on an escrow account with a reputable financial institution established in the EU. The deposited amount will be set to three months of average of latest semester's Interconnect Services billed amounts to:
 - a) OLO solely.
 - b) both parties if Netting Agreement is signed with OLO.
Proximus has the right to require an adaptation of the deposit amount every semester, for which OLO will undertake necessary steps to ensure adaptation within 10 working days.

In absence of payment by OLO of due amounts under the interconnect agreement on due date, the financial institution or parent corporation will wire the overdue amounts to Proximus upon Proximus request. The interests and costs linked to the above options remain property of OLO.

As soon as above described credit worthiness, parent corporation guarantee, bank guarantee or escrow account would insufficiently cover the due amounts during the course of the Interconnect Agreement, OLO will provide Proximus with additional prepayment or other financial guarantees as defined in the present chapter within 10 working days as from the event date.

9.3 Payment failure

Without prejudice to any other legal or contractual remedies and notwithstanding anything to the contrary in the Interconnection Agreement, in the event OLO fails to pay on due date, either any due amount or prepayment, Proximus shall be entitled to execute the following alternatives until full payment is made:

- suspension of the Interconnect Services in accordance with the guidelines related to the termination market for fixed and mobile networks as foreseen by the BIPT;
- refusal of any new request to create or change Interconnect link / capacity;
- refusal of any other new Interconnect Services.

9.4 Netting Agreement

Both Parties agree to proceed to direct billing (i.e. invoices & statements) without prior exchange of reports.

Both Parties agree to set-off by end of the month their bilateral bills, issued at the latest on the 15th day of the month, excluding the rightfully disputed amounts. The set-off will occur through payment by the net payer.

To do so, Proximus will communicate an overview to OLO of all outstanding bilateral bills, indicating the disputed or netting amount to the other Party for approval.

Disputed amounts will be handled in accordance with the conditions set out in the relevant Agreement.

If for any reason a bill would be issued only after the 15th of the month, both Parties agree that the concerned bill shall be subject to payment netting by end of subsequent month.

Without prejudice to the above, in case payment wouldn't have occurred for any reason, both Parties hereby confirm that this Agreement does not release any Party to pay the bills issued by the other Party on their payment due date.

The rights in the Netting Agreement will not preclude nor affect in any way the right of any Party to take action against the other Party to reclaim any amount that they are owing to each other.

ANNEX 1 Practical Information

Requests for Proximus documents mentioned in the present Offer can be made in writing by interested parties at the following Proximus contact point:

Proximus
Carrier & Wholesale
Boulevard du Roi Albert II, 27
1030 Brussels

e-mail: wholesale@proximus.com

The transmission by Proximus of the documents mentioned is subject to the prior signing of a confidentiality undertaking by the requesting party. Some documents are also available on Proximus secured website (to be found at www.proximuswholesale.be) which can be accessed by authorized parties after the receipt of a password.

Any requests for information related to the Offer should be addressed in writing to the above mentioned Proximus contact point. In particular, in the event of doubt as to the interpretation of the provisions of this Offer, Proximus should be contacted.



ANNEX 2 Pricing

The pricing of VoIP Interconnect services covered by the present Offer can be found in a separate document called "Annex 2 Pricing" available on Proximus Wholesale website.

ANNEX 3 Planning & Operations

Is provided separately



ANNEX 4 Service Level Agreement

Is provided separately.

ANNEX 5 Definitions

The definitions in this Offer are proper to this document and are without prejudice to the definitions contained in the applicable regulatory framework.

The capitalized terms in the present Offer have the meaning as defined below:

Access Area	Area within Promus's Network as defined in the present Offer, in which Interconnect Services are offered at specified Proximus Access Points
Access Point	Location of the physical interface within a network to which Interconnect Links can be connected by another party.
Act	In the present Offer "the Act" means "the Act of 13th June 2005 concerning Electronic Communication Services"
Area Access Point	Access Point through which Interconnect Services can be obtained.
BIPT	Belgian Institute for Postal services and Telecommunications
CAC	See Communication Access Code
Call Attempt	An attempt to establish a Call, without entering conversation phase.
Call Setup	The procedures to establish a Call up to the conversation phase.
Call	The establishment of a connection through a Network and the transmission and the delivery of a communication, from the terminal on which this communication has been generated to the terminal to which this communication is addressed, or to a network platform or to any other facility giving an automatic answer in the cases where the connection cannot be established.
Calling Line Identification (CLI)	The identity of the calling line, based on E.164 numbers, validated by the originating network and transmitted to the terminating network by means of signalling.
Calling Line Identification Presentation (CLIP)	Terminating service that provides the calling party's number to the called party

Calling Line Identification Restriction (CLIR)	Originating service that restricts the presentation of the calling party's number to the called party
Capacity (of the Interconnect Link)	Parameter for the communication volume between Proximus and the Operator. Capacity can be expressed as bandwidth or as number of simultaneous calls. It is applicable to an Interconnect link or an interconnect VLAN or an interconnect trunk group.
Carrier Pre-Selection (CPS)	Pre-configured selection of an Operator allowing the access to basic telephony services, provided by that Operator without the need for the end-user to dial the CSC
Carrier Selection (CS)	Selection of an Operator by means of a CSC dialled by the end-user allowing the access to basic telephony services provided by that Operator
Carrier Selection Code (CSC)	A CAC of the type 15XX or 16XX, defined and allocated by the BIPT, used to select an Operator in order to access basic telephony services provided by that Operator as described in Chapter 4
Chargeable Call Duration	The time interval, rounded up to the nearest second, that elapses between: <ul style="list-style-type: none"> • the moment at which the answer signal (in the backward direction) is detected at the concerned Access Point • the moment at which the clear forward or clear backward condition is detected at the concerned Access Point
Collecting Access Services	Interconnect Services in which Proximus conveys, calls generated by its end-users to an Access Point of the Operator in order to allow the access to a range of services provided by the interconnected Operator.
Colocation Agreement	An agreement concluded between Proximus and an Operator which covers, in particular, the technical, operational, billing, planning and financial conditions for the Colocation Services provided by Proximus to the Operator
Colocation Area	Part of a Colocation Room rented to a single Operator
Colocation Room	Part of a Proximus building, designated by Proximus, where Operators can install their equipment as described in the Colocation Agreement

Colocation Services	Colocation Services as described in the Colocation Agreement
Communication Access Code (CAC)	A routing indicator consisting of 4 digits with the format 1YXX (Y=5,6), used in relation with Collecting Access Services.
Customer-sited Interconnect Link (CSIL)	Interconnection in which the Interconnect Link is provided in its entirety by Proximus up to an Access Point of the Operator
Demarcation Point	The physical point (interface or patch panel) where one Parties' responsibility for the Service ends and the other Parties obligations start. It identifies and establishes the dividing line between the appropriate areas of responsibilities of the Parties.
Emergency Call	Call to one of the numbers, specified in the Royal Decree 02/02/2007
Freephone Service	Service which allows the calling party to make free of charge Calls, which are paid for by the Service Provider
Interconnect Agreement	An agreement concluded between Proximus and an Operator which describes, in particular, the technical, operational, billing, planning and financial conditions for the Interconnect Services between Proximus and the Operator and the provision of the Interconnection of the two Networks
Interconnect Link Service	An Interconnect Service necessary for the establishment of an Interconnect Link
Interconnect Link: (VOIP)	A Link between the network of Operator-1 and an Access Point located, in the Network of Operator-2 in order to enable the provision of Interconnect Services,
Interconnect(ion) Services	Interconnect(ion) Services described in the present Offer
Interconnect(ion)	Cf. the Act, article 2, 19°
Link	Set of telecommunication facilities necessary to establish one or more transmission paths between two locations
Network	Cf. the Act, article 2, 3°
Operator Interconnect Traffic (OIT)	The traffic for which the Operator is responsible with regard to cost, engineering and operations. The traffic type for a particular interconnect service is defined in the related Service Plan.

Optical Distribution Frame (ODF)	A frame used to provide cable interconnections between communication facilities, which can integrate fibre splicing, fibre termination, fibre optic adapters & connectors and cable connections together in a single unit
Party	Depending on the context, Proximus and/or the Operator entering into an Interconnect Agreement
Point of Interconnect (POI)	Point within Promus's Network in which Interconnect Services are offered.
Point of Presence (POP)	Location where the Service Operator's System is installed and to which Interconnect Links can be connected
Proximus Interconnect Traffic (BIT)	The traffic for which the Proximus is responsible with regard to cost, engineering and operations. The traffic type for a particular interconnect service is defined in the related Service Plan
Proximus-sited Interconnect Link (PSIL)	Interconnect Link that is provided in its entirety by the Operator, subject to what is stated in this Offer and in the Colocation Agreement entered into by the Parties concerned
Public Network Operator	Moral or physical person that fulfils the conditions required by the Regulatory Framework for electronic communications to provide a public Network
Service Plan	The description of an Interconnect Service, offered by a party to the other party...
SLA	Service Level Agreement
Split Charging Service	Service which allows an Operator to share the charges for a Call between the calling and the called parties involved. This Service can be accessed by the end-user by dialling specific number ranges, which are allocated by the BIPT to that particular Service
Successful Call	A call during which an answer signal (in the backward direction) has been received in accordance with the applicable international recommendations
System	The telecommunication infrastructure used by a Service Operator for the provision of public Voice Telephony Services
Telecommunication Services	Cf. the Act, article 2, 5°
Terminating Service	Interconnect Services offered at a Proximus Access Point in which Proximus conveys the Calls handed over by the Operator and directed to Proximus

	geographic numbers, Split Charging and Emergency Services numbers from that Proximus Access Point to the destinations concerned
Traffic (Flow)	A set of Calls characterized by the fact that all the Calls which constitute this flow have a same direction (towards or from an Access Point)
Unsuccessful Call	All calls which have passed through the Proximus Access Point and which are not Successful Calls
Value Added Service (VAS)	A Telecommunication Service which can be accessed via the public telephone network by dialling a non-geographic number, excluding in particular the numbers related to mobile networks, Emergency Services, Split Charging Service and Operator Assistance Services
Voice Telephony Service Operator	Moral or physical person that fulfils the conditions required by the Regulatory Framework for electronic communications to provide a Voice Telephony Service
Voice Telephony Service	Service offered to the public for commercial exploitation of direct transport of voice in real time via a public network and giving the possibility to each user to use the equipment connected to a network termination point in order to communicate with another equipment user connected to another network termination point
VoIP Interconnect Offer	The present Offer for Interconnect Services related to voice interconnection between networks based on an IP protocol.
VoIP	Voice over Internet Protocol
Working Day	Each day except Saturday, Sunday and the national legal holidays in Belgium



PROXIMUS REFERENCE INTERCONNECT OFFER

VoIP Interconnection offer

Annex 2: Pricing

Valid as from 15/03/2018

Table of contents

Table of contents.....	2
1. General remarks.....	3
2. Terminating Services.....	4
2.1 Calls to Proximus geographic numbers and split charging numbers.....	4
2.2 Calls to Emergency Numbers.....	4
2.2.1 Calls to 100,101 and 112.....	4
2.2.2 Calls to 102, 103, 104, 106, 107, 108, 110, 117 and 119.....	5
2.2.3 Calls to Emergency Services which are not identified by 3 Digits.....	5
2.3 Calls to Proximus Mobile Numbers.....	5
3. VoIP Interconnect Transport.....	6
3.1 Customer-sited Interconnect Link (CSIL).....	6
3.2 Proximus-Sited Interconnect Link (PSIL).....	6
3.3 OIT SIP-Trunk.....	7
4. Testing fees.....	8
5. Other fees.....	8

1. General remarks

The prices and conditions for Interconnection contained in the present Annex of the VoIP Interconnect offer are applicable for the period as from the date indicated in the first page. Modifications can be made to these prices and/or conditions in the course of the year, in such case a new version of the present Annex will be published on the ProximusWholesale website.

All prices mentioned in this Annex are VAT excluded.

Prices for other services not covered by the Offer can be obtained from Proximus on request.

In the relevant case, "Peak" period is the period between 08:00 to 19:00 from Monday through Friday, excluding Belgian legal holidays. "Off Peak" period is all other periods of time.

When applicable, each Successful Call will give rise to two charges: a fixed set-up charge and a duration charge taking into account the Chargeable Call Duration measured on a per second basis. Unsuccessful Calls are not charged.

2. Terminating Services

2.1 Calls to Proximus geographic numbers and split charging numbers

Type of Call	Set-up Charge		Duration charge (per min)	
(in eurocent)	Peak	Off Peak	Peak	Off Peak
Intra Access Area	0,443	0,232	0,727	0,381

These rates are applicable to the delivery of calls originated from Belgium or other EU countries to the network of Proximus. The origin of a call is determined based on the country code of the calling party (the so-called A number). Therefore, a call is considered as from EU origin if the country code of the calling party falls in the list provided here below

Country code	EU Country	Country code	EU Country
+43	Austria	+39	Italy
+32	Belgium	+371	Latvia
+359	Bulgaria	+370	Lithuania
+385	Croatia	+352	Luxembourg
+357	Cyprus	+356	Malta
+420	Czech Republic	+31	Netherlands
+45	Denmark	+48	Poland
+372	Estonia	+351	Portugal
+358	Finland	+40	Romania
+33	France	+421	Slovakia
+49	Germany	+386	Slovenia
+30	Greece	+34	Spain
+36	Hungary	+46	Sweden
+353	Ireland	+44	United Kingdom

2.2 Calls to Emergency Numbers

2.2.1 Calls to 100,101 and 112

Type of Call	Set-up Charge		Duration charge (per min)	
(in eurocent)	Peak	Off Peak	Peak	Off Peak
Intra Access Area	2,523	2,312	0,727	0,381

2.2.2 Calls to 102, 103, 104, 106, 107, 108, 110, 117 and 119

Type of Call	Set-up Charge		Duration charge (per min)	
(in eurocent)	Peak	Off Peak	Peak	Off Peak
Intra Access Area	0,443	0,232	0,727	0,381

2.2.3 Calls to Emergency Services which are not identified by 3 Digits

In case the Emergency Services are addressed by the geographic numbers characterising the network termination points of the Emergency Services concerned, the same prices apply as those indicated in §2.2.2.

In case the Emergency Services are addressed by 116000, a 0800 or a 070 number, the following prices will be charged to the Operator:

Type of Call	Set-up Charge		Duration charge (per min)	
(in eurocent)	Peak	Off Peak	Peak	Off Peak
Intra Access Area	1,686	0,884	0,727	0,381

2.3 Calls to Proximus Mobile Numbers

The rate applicable to the delivery of calls originated from Belgium or EU countries (see section 2.1.) to the network of Proximus will be as follows: 0,99 eurocent per minute. This price is only applicable in case the Operator provides the right Codec (AMR). In case transcoding is required by Proximus, additional charges will be invoiced. Calls to Proximus Mobile numbers remain accessible as transit service where such transcoding will also be included.

There is no set-up charge and the above price is applicable during all charging periods (peak/off-peak).

The origin of a call is determined based on the country code of the calling party (the so-called A number).

Therefore, a call is considered as from EU origin if the country code of the calling party falls in the list provided above.

3. VoIP Interconnect Transport

The rental fees mentioned below will be invoiced at the 1st day of the month to which they are related (payment however is due at the latest 30 calendar days after the end of the month to which they are related).

3.1 Customer-sited Interconnect Link (CSIL)

Installation fee per OIT VLAN: 450,00 €

Monthly Rental fees per OIT VLAN:

Product	Monthly Recurring Cost
OIT_CS_50M_Voice Qos incl	549,65 €
OIT_CS_100M_Voice Qos incl	641,60 €
OIT_CS_300M_Voice Qos incl	845,15 €
OIT_CS_500M_Voice Qos incl	999,65 €
OIT_CS_1G_Voice Qos incl	1.205,40 €

3.2 Proximus-Sited Interconnect Link (PSIL)

One time installation fee for 1Gps_Proximus Sited IL:

Installation: 112,00 €

Cable (min 20m): 6,74 €/m

Small building works (case by case)

Total minimum installation fee: 246,80 €

Note: Cable works as such are not included.

Monthly Rental fees:

1Gps_Proximus Sited IL:

Link: 38,47 €

Cable (min 5m): 0,17 €/m

Total minimum rental fee: 39,32 €

3.3 OIT SIP-Trunk

The OIT SIP-Trunk charges will be invoiced whatever the type of VoIP Interconnect links used (CSIL or PSIL).

Installation fee per OIT SIP trunk: 125,00 €

Monthly Rental fees for the OIT SIP Peak Bandwidth:

Product	Monthly Recurring Cost
OIT SIP_Peak BW_50M	2.279,50 €
OIT SIP_Peak BW_100M	4.559,00 €
OIT SIP_Peak BW_300M	13.677,00 €
OIT SIP_Peak BW_500M	22.795,00 €
OIT SIP_Peak BW_1G	45.590,00 €

Voice Qos included.

As a 1+1 redundant setup is obligated, the prices for the backup link are:

Installation fee per OIT SIP trunk (redundant link): 125,00 €

Monthly Rental fees: included in the primary OIT SIP trunk Monthly Rental fee.

4. Testing fees

One time installation fee for the TEST VLAN:	450,00 €
Monthly recurring cost:	549,65 €

The following fees will be invoiced to cover the tests performed during the 3 tests phases.

Cost testing phase 1:	7.500,00 €
Cost testing phase 2:	7.500,00 €
Cost testing phase 3:	7.500,00 €
Cost testing phase 3 (if mobile included):	15.000,00 €

Proximus reserves its right to invoices additional fees in case of re-testing is required.

5. Other fees

In case the Operator requires a change to be performed on the VoIP interconnect (change other than pure capacity related) Proximus will provide to the Operator the costs to perform that change such that it covers the implementation, configuration, testing effort required performed by Proximus.