



RERENCE INTERCONNECT OFFER (RIO) BT GLOBAL SERVICES LUXEMBOURG S. À R. L.

Version 01



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BT GLOBAL SERVICES LUXEMBOURG SARL
12, RUE EUGÈNE RUPPERT, L-2453 LUXEMBOURG



Reference Interconnect Offer

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1 [Interconnection Offer](#)

This Reference Interconnect Offer deals with Interconnect Services offered to a duly authorized Public Network Operator, hereafter called “Interconnected Operator”, for termination of fix and mobile voice calls to “BT network”, hereafter called OLU.

This Reference Interconnect Offer has been issued and developed in accordance with the obligations imposed by the regulation 16/208/ILR, November 28th, 2016

The Interconnect Services included in this Reference Interconnect Offer encompass the following services:

- Terminating access Service
- Interconnect link Service
- Number Portability Service

This Reference Interconnect Offer does not cover calls to numbers which were initially attributed to OLU but which were ported to other networks. Other interconnect services may be negotiated between OLU and the “Interconnected Operator” and included in the final Interconnect Agreement.

As a general principle, OLU is not responsible for the content of the communications conveyed through its Interconnect Services.

2 [Offer validity](#)

This Reference Interconnect Offer is valid from January 1st 2017, unless

- a new Reference Interconnect Offer is published by OLU;
- a material change occurs in the laws or regulations, governing telecommunications in Luxembourg.

This Reference Interconnect Offer may be reviewed and amended in order to comply with applicable rules and regulations. Furthermore, the ILR reserves the right to request or impose on OLU modifications to the offer.

The validity of the present Reference interconnect offer is determined by the decision 14/177/ILR , August 28th, 2014 dealing with the procedures related to the publication of a reference

Unless defined otherwise, the terms used in this Reference Interconnect Offer must be interpreted in accordance with the Law of February 27th, 2011 Networks and Electronic Communication Services (the "Law") and its implementing regulations.

3 Definitions

Term	Description
Call	The establishment of a connection through a telecommunications network and the transmission and the delivery of a signal from the terminal on which this signal was generated to the terminal to which this signal is addressed or to a network platform or any other facility giving an automatic answer in those cases where the connection cannot be established.
Calling Line Identification (CLI):	The CLI is the number of the calling user conveyed by each Operator's network for each call, it may also be provided by the network or partly by the calling user. This information is flagged either as "network - provided" or as "user provided, verified and passed". If the verification of a user provided CLI fails, the network provided CLI will be transmitted.
Calling Line Identification Presentation (CLIP)	Supplementary service provided for in ITU T Recommendation I.251.3.
Calling Line Identification Restriction (CLIR):	Supplementary service provided for in ITU T Recommendation I.251.4.
Capacity of the Interconnection Link:	The capacity defined for the Interconnection Link and the corresponding Operator access point to which the Interconnected Operator wishes to be connected
ILR	Institut Luxembourgeois de Régulation.
Interconnection Link	A Link between "OLU's" Access Point and the "Interconnected Operator"
Operator Access point:	The physical interface within OLU's System from which the Interconnection services can be obtained.
OLU:	BT GS Luxembourg offering interconnect services through this offer
"Interconnected Operator":	An operator wishing to be or being interconnected to OLU



International Public Telecommunication Number	Defined as in ITU T Recommendation E.164.
National (significant) Number	Defined as in ITU T Recommendation E.164.
KPI	Key Performance Indicator
Link	Set of telecommunications facilities necessary to establish one or more transmission paths between two locations.
Operator Access Point	The physical interface within OLU's System at which the Interconnection Services can be obtained.
Parties	OLU, offering interconnection services and the "Interconnected Operator" buying interconnection services under this agreement.
Point of Interconnection (POI)	The physical point on the Interconnection Link where the telecommunications network of OLU and the "Interconnected Operator"'s System are interconnected. The POI is the boundary between OLU and the "Interconnected Operator domains of responsibility".
Reference Interconnect Offer Fix and Mobile (RIO F&M)	The present offer for interconnection Services
System	All equipment and software which, an Operator uses to provide his telecommunications services.
SLA	Service Level Agreement



[4 Interconnection Architecture](#)

4.1 Sites

OLU offers the following site that has been designed for use as Interconnection Access Points grounds of their optimal network integration.

Interconnection point addresses:

BT Global Services 6, rue Schnadt, rue L-2530 Luxembourg

4.2 System alteration

If OLU wishes to make a system alteration, it shall give the “Interconnected Operator” and the ILR no less than 6 months written notice prior to the date of the anticipated system alteration. The notice shall specify the technical details of the system alteration and the date of the anticipated system alteration. Following such notification OLU shall supply to the interconnected Operators such information as the “Interconnected Operator” may reasonably request including, to the extent reasonably practicable, the potential impact on the service provided by the “Interconnected Operator” to the End Users.

4.3 Standards

Where relevant, the following standards and procedures will apply:

- Any legal requirements
- ITU-T Recommendations
- ETSI standards
- national standards
- Any other relevant international standards

The signaling system will be based on the ITU-T SS7 protocols, ISUP Blue Book version. Tests for the SS7 will be performed following the pertinent ITU-T recommendations.

The transmission level of the Interconnection is based on the pertinent ITU-T recommendations for PDH and SDH interfaces.

Other Interconnection options may be provided, and OLU try to comply with any reasonable request for alternative Interconnections, if technically feasible.

[5 Service description: Terminating access service](#)

The fix terminating access service conveys a call handed over from the “Interconnected Operator’s” System, at OLU’s Access Point for termination on any national fix number of OLU’s network. Tariffs may be different for different categories of services identified by different fix or mobile number ranges.

The tariffs applied by OLU for the provision of the terminating access service are indicated in Annex 1. Only calls that have been setup successfully and answered will be charged. The charging time starts with the answering signal and ends with the first clear signal generated either by the calling or the called party. Whenever CLI is transferred to the telecommunications network of “The Interconnected Operator”, OLU will not communicate such CLI to an end-user if such CLI is marked as CLIR unless the call is directed to an emergency number.



6 Number Portability

Number Portability (NP) is applicable under the conditions defined by the ILR.

7 Interconnection Link Service

The interconnection link service consists in the physical linking between “OLU’s” Access Point and an “Interconnected Operator” Access Point. The “Interconnected Operator” must interconnect to a Point of Interconnection defined in paragraph 4.a. The relevant charges per interconnect site are defined in Annex 2.

7.1 General

The “Interconnected Operator” is responsible for the dimensioning and payment of the interconnection links required for the conveyance of its own traffic. The “Interconnected Operator” is responsible for the traffic conveyed through its System and handed over at OLU’s Access Point in order to use OLU’s terminating fix and mobile access services.

7.1.1 Initial Capacity Order

The initial capacity order must be submitted at the latest 4 months before the launch date of the service. OLU will aim to keep shorter delays taking into consideration its availability and organizational constraints.

- Subsequent Capacity Orders

Any subsequent capacity order has to be submitted at the latest 2 months before the launch date of the additional traffic. OLU will aim to keep shorter delays taking into consideration its availability and organizational constraints.

7.2 Other interconnection options

Other Interconnection options may be provided and OLU will try to comply with any reasonable request for alternative Interconnection, if technically feasible.

8 QoS for interconnection services

As far as the terminating access service is concerned, OLU undertakes to ensure for its own System, a network failure rate which does not exceed 1, 5% as a national 3 months average, for failures which are exclusively due to its System.

Network failure rate is the ratio between the number of calls handed over by an “Interconnected Operator” to be terminated on OLU’s Network and failed due to insufficiencies in OLU’s Network and the total amount of calls handed over by “The Interconnected Operator” to be terminated on OLU’s network (excluding, in particular, failures due to end-user behavior and failure of terminal equipment).

In case of disturbance of the conveyance of traffic within its System, OLU may be constrained to implement the classical measures of traffic regulation (limiting channels, etc.) in order to limit its effect on the quality of the service provided to its customers as well as to the “Interconnected Operator”.

The target figures given above for network failure rate do not include failures that are caused by the mentioned measures of traffic regulation.

“The Interconnected Operator” and the ILR shall be informed if the abovementioned measures for traffic regulation have to be applied and how long they may last.



OLU shall respect the quality conditions as they are defined in the applicable legal regulation and in accordance with the quality OLU provides to its retail clients.

9 [Procedures for reaching an interconnect agreement](#)

Interconnection agreements shall be negotiated according to the procedures and regulations determined by ILR.

On first demand by the “Interconnected operator”, OLU may request bank guarantees of 10.000€ (of a bank based in Luxembourg) for the provisioning of the interconnect service.

Other “reasonable” guarantees, as payment in advance, may be requested before supplying the interconnection service.

Agreement requests shall be addressed to: BT Global Services 12, Eugène Ruppert L-2453 Luxembourg

10 ANNEX

10.1 Annex 1 – Terminating rates

The tariffs below are for fixed national termination.

The tariffs below only apply to the termination of voice calls originating within the EEA (European Economic Area), provided that the calling number can be identified as belonging to a numbering plan of one of the countries of the EEA. Termination charges for calls originating outside the EEA can be requested from BT GS.

10.1.1 Terminating access service to OLU's geographic numbers: 1-1-2017 – 31-12-2017

	Call setup € cts	Charge per minute € cts
Peak*	0	0,131
Off-peak	0	0,131

10.1.2 Terminating access service to OLU's geographic numbers: 1-1- 2018 – 31-12-2018

	Call setup € cts	Charge per minute € cts
Peak*	0	0,135
Off-peak	0	0,135

10.1.3 Terminating access service to OLU's geographic numbers; 1-1-2019 – 31-12-2019

	Call setup € cts	Charge per minute € cts
Peak*	0	0,138
Off-peak	0	0,138

*Peak: on working days from 08.00 to 19.00 Luxembourg local time

** Off-peak: outside of peak hours

Terminating rates will be billed on a per nearest second basis

All prices are exclusive VAT

10.2 Annex 2 – Fees for Interconnection link service

One-off charge per Operator covering installation and testing	8 500,- €
Annual fee per 2Mbit's link covering costs for equipment and maintenance	2100,- €



All prices are exclusive VAT

10.3 Annex 3 – Fees for Number Portability (NP)

Activation fee for Number Portability (NP) per number activation: 14,38€

Additional conveyance fee per minute for inconsistent or erroneous codes if the volume of inconsistent or erroneous codes exceeds the percentage of 1% of the total calls to ported numbers: 0,63 € cts.