

PROJECT

Operator Verizon Belgium Luxembourg SA,

Hereafter called "The Operator"

Reference Interconnect Offer

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Table of contents

- 1. Scope and limits of the Interconnect Offer
- 2. Offer validity
- 3. Definitions
- 4. Interconnection Architecture
 - a. Sites
 - b. System alteration
 - c. Standards
- 5. Service description: Terminating access service
- 6. Interconnection Link Service
 - a. Co-location and Interconnection link
 - b. Capacity
 - c. Signalling
- 7. Number portability
 - a. Scope
 - b. Tariffs and Billing
- 8. QoS for interconnection services
- 9. Procedures regarding an Interconnect Agreement
- 10. Contacts
- 11. Annexes
 - 11. A Terminating fees
 - 11.B NP fees
 - 11.C Fees for Interconnection link service



1. Scope and limits of the Interconnect Offer

This Reference Interconnect Offer deals with Interconnect Services offered to a duly authorized Public Network Operator, hereafter called "Interconnected Operator", for termination of voice calls to "XYZ" Subscribers, hereafter called "The Operator".

This Reference Interconnect Offer has been issued and developed in accordance with the obligations imposed on "The Operator" in the ILR decision 14/171/ILR, market 3/2007.

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

- Terminating Access Services, as described in section 5
- Interconnect Link Services and Colocation Services, as described in section 6
- Number Portability, as described in section 7

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

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



2. Offer validity

The validity of the present interconnect offer is determined by the EC Delegated Act 2021/654, decision 14/177/ILR dealing with the procedures related to the publication of a reference offer dated 28 august 2014 and 14/171/ILR, market 3/2007 dated 6 January 2014.



3. Definitions

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 | Supplementary service provided for in ITU T |
| (CLIP) | Recommendation I.251.3. |
| Calling Line Identification Restriction (CLIR): | Supplementary service provided for in ITU T Recommendation I.251.4. |
| Consoity of the Interconnection Link: | - |
| 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 |
| Carrier Selection Code (CSC) | A selection code as defined and allocated by |
| | the ILR and which is used to enable the |
| | originating access. |
| Carrier Preselection (CPS) | A pre-programmed selection of an Operator |
| | allowing the access to services provided by |
| | that Operator without the need for the end- |
| | user user to dial the CSC. |
| ILR | Institut Luxembourgeois de Régulation. |
| Interconnection Link | A Link between "The Operator's" Access |
| | Point and the "Interconnected Operator" |
| Operator Access point: | The physical interface within the Operator's |
| | System from which the Interconnection |
| | |



| "The Operator": | The operator offering interconnect services through this offer |
|--|--|
| "Interconnected operator": | An operator wishing to be or being interconnected to "The Operator" |
| International Public Telecommunication | Defined as in ITU T Recommendation E.164. |
| National (significant) Number | Defined as in ITU T Recommendation E.164. |
| KPI | Key Performance Indicator |
| Number portability | The case where a subscriber retains its originally assigned directory number when changing from one network Operator (donor network; Donor Operator) to another (recipient network; Recipient Operator) and is not related to changing the nature of service nor the location. |
| Link | Set of telecommunications facilities necessary to establish one or more transmission paths between two locations. |
| Operator Access Point | The physical interface within "The Operator's" System at which the Interconnection Services can be obtained. |
| Parties | "The operator", 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 "The Operator" and the "Interconnected Operator"'s System are interconnected. The POI is the boundary between "The Operator" and the "Interconnected Operator domains of responsibility". |
| Reference Interconnect Offer (RIO) | The present offer for interconnection Services |
| System | All equipment and software which, an Operator uses to provide his telecommunications services. |
| SLA | Service Level Agreement |
| SIP | Session initiated protocol, is the IETF protocol for VOIP and other text and multimedia messages |



4. Interconnection Architecture

4. a - Sites

"The Operator" offers following sites that have been designed for use as Interconnection Access Points grounds of their optimal network integration.

Interconnection point addresses:

- 1. RUE DE L'ETANG 4 A/B CONTERN 15326
- 2. 45 BOULEVARD PIERRE FREIDEN KIRCHBERG 2929

4. b - System alteration

If "The Operator" 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 "The Operator" 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. c - Standards

Where relevant, the following standards and procedures will apply:

- Any legal requirements
- IETF RFCs
- ETSI standards
- Any other relevant international standards



5. Service description: Terminating access service

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

The tariffs applied by "The Operator" 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", "The Operator" 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. Interconnection Link Service

The interconnection link service consists in the physical linking between "The Operator'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.

6. a - Co-location & Interconnection link

For "The Operator" -sited interconnection, "The Operator" can provide a custom offer for an Interconnection Link Service or "The Operator" will supply and operate an Interconnection Link in its entirety.

"The Operator" will provide access to the "Interconnected Operator" at its site for the installation and maintenance of "The Interconnected Operator's" transmission equipment located at this site. "The Operator" will supply a suitable location for the "Interconnected Operator's" transmission equipment used in direct relation with interconnection services, electric power and safekeeping.

In its request for "The Operator"-sited interconnection, the "Interconnected Operator" will describe his needs regarding the installation of his transmission equipment on the premises of "The Operator". Whenever "The Operator" determines that "The Operator"-sited interconnection is not reasonably feasible, it will inform the "Interconnected Operator" and the ILR of the reasons of such unfeasibility within 15 days of receiving the request.

"The Operator" will comply, should the ILR find that "The Operator"-sited interconnection is reasonably feasible. In any case, "The Operator" will cooperate with the "Interconnected Operator" in order to find an appropriate alternative solution.

6. b - Capacity

"The Interconnected operator" is solely responsible for the dimensioning of the Interconnection links.

6. c - Signalling System

The signalling system between "The interconnected Operator" and "The Operator" will be discussed between them on reasonable terms upon a request for interconnection by The interconnected Operator.



7. Number portability

7. a Scope

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

As a general rule, NP will be achieved through the mean of an electronic messaging system.

The transmission of such files can be done from 6.00 to 18.00 hours, from Monday to Friday, excluding legal and public holidays.

The NP activation will be performed from Monday to Friday from 8.00 to 12.00 and from 13.30 to 18.00, excluding legal and public holidays.

7. b Tariffs and billing

Tariffs on NP are defined in Annex 3.

Billing procedures will be described in the Porting Agreement between the Parties.



8. QoS for interconnection services

As far as the terminating access service is concerned, "The Operator" 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 "The operator's" Network and failed due to insufficiencies in "The Operator's" Network and the total amount of calls handed over by "The Interconnected Operator" to be terminated on "The Operator'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, "The Operator" 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 above-mentioned measures for traffic regulation have to be applied and how long they may last.

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



9. Procedures for reaching an interconnection agreement

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

On first demand by the "Interconnected operator", "The Operator" 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:

Verizon Enterprise Solution Regulatory Department H.J.E. Wenckebachweg 123 1096 AM Amsterdam Netherlands



10. Contacts

Any necessary contact details will be exchanged upon the request as set out in Chapter 9 above.



11. Annexes – Annex 1

11. Annex 1 – Terminating fees

11. a. Terminating access service to geographic numbers

As of 1 February 2021:

A flat rate of 0,138 eurocents per minute applies, without distinction in peak/off-peak and without set-up fee.

As of 1 July 2021 - 31 December 2021:

EURct 0.110

As of 1 January 2022 - 31 December 2023:

EURct 0.07



11. Annexes – Annex 2

11. Annex 2 – Fees for Interconnection link service

To be discussed and agreed between parties in line with requirements of ILR upon a request as set out in Chapter 9 above.



11. Annex 3 – Fees for NP

| Standard tariffs applicable to Number Portability: Activation fee for number portability 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 , 6 3 € c t |