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# Reference Interconnect Offer (RIO)

Voxbone SA

March 2021

**Prices in Euro**

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*Reference Interconnect Offer 2021*

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## 1. Introduction

1.1. This Reference Interconnect Offer ("RIO") defines the interconnection terms and conditions (including the list of the interconnection services) which Voxbone<sup>1</sup> will apply to all Operators in order to allow end-users who are connected to the system of an Operator to communicate with end-users who are connected to the telecommunication networks of Voxbone. This RIO focuses mainly on voice services and does not include other services.

1.2. The services covered by this RIO are

\* terminating access service.

\* Interconnect link service

1.3. This RIO defines the minimal interconnection terms and conditions which Voxbone will grant to other Operators. Nevertheless, Voxbone reserves the right to provide more beneficial terms and conditions, in accordance with the applicable regulatory framework, including the principle of non-discrimination.

1.4. No Operator shall be responsible for the content of calls passed through his own or an interconnected Operator's network. Laws and regulations regarding confidentiality and access by legal authorities to calls on the Operator's and Voxbone's network will apply.

1.5. This RIO is valid from XXXX 2021, unless

- A new RIO is approved or adopted by the ILR, or
- A material change occurs in the laws or regulations, governing telecommunications in Luxembourg.

This RIO shall remain in full force and effect after XXXX 2021 until such a new RIO approved or adopted by the ILR enters into force.

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<sup>1</sup> Unless defined otherwise in the operative parts of the RIO, capitalized terms are defined in Section 2 – Definitions - of this RIO

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1.6. The content of this RIO 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 Voxbone modifications to the RIO or the adoption of a new RIO to be undertaken by Voxbone.

1.7. Unless defined otherwise, the terms used in this RIO must be interpreted in accordance with the Law of 27<sup>th</sup> February 2011 on Networks and Electronic Communication Services (the "Law") and its implementing regulations.

1.8. All prices mentioned in this RIO, including those specified in the Appendices attached hereto, are in EURO (€) and exclusive of Value-Added Tax (VAT) or any other legal taxes, which will be added where applicable.

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## 2. Definitions

**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 Restriction (CLIR):** Supplementary service provided for in ITU-T Recommendation I.251.4.

**ILR:** Institut Luxembourgeois de Régulation.

**Interconnection:** The interconnection withVoxbone, as defined in the Law.

**Interconnect Agreement:** An agreement between Voxbone and an Operator, which defines the conditions for the Interconnection.

**Interconnection Link:** A link between Voxbone's access Point and an Operator Access Point for the provision of Interconnection traffic.

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Interconnection Service: Services described in the present Reference Interconnect Offer.

International Public Telecommunication 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.

National (Significant) Number: Defined as in ITU-T Recommendation E.164.

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.

OAo Other Alternative Operator

Operator: Any legal or natural person exploiting telecommunications networks and/or providing telecommunications services in Luxembourg.

Operator Access Point: The physical interface within the Operator's System at which the Interconnection Services can be obtained.

Parties: Voxbone and the Operator which an

Interconnection Agreement is (being) concluded with.

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Point of Interconnection (POI): The physical point on the Interconnection Link where the telecommunications network of Voxbone and the Operator's System are interconnected. The POI is the boundary between Voxbone and the 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

Voxbone: Voxbone SA, a company organized under Belgian Laws, with registered seat at Avenue Louise 489, 1050 Brussels, Belgium, duly notified as provider of electronic communications services to the ILR.

Voxbone's Access Point: The physical interface within Voxbone's System from which the Interconnection Services can be obtained.



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### 3. Interconnection Architecture

#### 3.1 Voxbone's access points in Luxembourg

Voxbone has one site that is designed for use as an Interconnection Access Point. This site contains relevant switching and transmission equipment with all digital functionality for national and international traffic.

The address of the interconnection point is as follows:

New RTLCity  
43 Blvd Pierre Frieden  
L-1543 Luxembourg

In case of national interconnection, the offered Interconnect Services relate to the entire national area.

#### 3.2. System Alteration

If Voxbone wishes to make a system alteration, it shall give the 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 Voxbone shall supply to the Operator such information as the Operator may reasonably request including, to the extent reasonably practicable, the potential impact on the service provided by the Operator to the End Users.

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### 3.3. Standards

Where relevant for interconnection with Voxbone, the following hierarchy of standards and procedures will apply:

Any legal requirements

ETSI standards

ITU-T Recommendations

National standards

Any other international standards

The SIP protocol is used as defined in RFC 3261 (<http://rfc.net/rfc3261.html>) to convey and terminate voice calls. The interconnection between both infrastructures is done through the Internet unless otherwise agreed upon between parties. Each party will be responsible for the Internet access charges paid to its Internet service provider.

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## **4. The terminating access service**

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

4.2. The tariffs applied by Voxbone 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.

4.3. Whenever CLI is transferred to the telecommunications network of Voxbone, Voxbone 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.

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## **5. Interconnection capacity**

The initial interconnection capacity (and associated number of channels) will be divided between dedicated IP Trunk Groups within VOXBONE's Infrastructure for the provision of Services provided by VOXBONE.

An IP Trunk Group contains the dedicated bandwidth expressed in a number of concurrent Calls. An IP Trunk Group is used for the handling of traffic of one or more Services. The possible combinations of Services in IP Trunk Groups are to be agreed between the parties.

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## **6. Number Portability (NP)**

### **6.1. Scope.**

Number portability (NP) is applicable under the conditions defined by the document DOC-NP-ILT which describes the procedures applicable to number portability in Luxembourg (the NP-Document).

As defined by the NP-Document, the Recipient Operator transmits the electronic file containing the requested data to Voxbone by means of an electronic messaging system. The transmission of the electronic files can be operated between 06.00 and 18.00 hours from Monday to Friday, except legal and public holidays. Voxbone will acknowledge receipt of the transmission file by means of the same electronic messaging system.

NP will be activated by the Voxbone from Monday to Friday from 8.00 to 12.00 and 13.00 to 17.00 hours except legal and public holidays in Luxembourg. This time schedule may be extended to 7.00 to 19.00 hours on Monday to Friday and 8.00 to 12.00 hours on Saturday with the supplementary costs to be paid by the Recipient Operator.

### **6.2. Tariffs and Billing**

Tariffs of number portability will be those defined in Annex 3.

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

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## **7. Quality of service of Voxbone's Interconnection Services**

7.1. As far as the terminating access service is concerned, Voxbone undertakes to ensure for its own System a network failure rate, which is in line with the commonly accepted industry standards regarding QoS, for failures which are exclusively due to its System. Network failure rate is the ratio between the number of calls handed over by an Operator to be terminated on Voxbone's Network and failed due to insufficiencies in Voxbone Network and the total amount of calls handed over by that Operator to be terminated on Voxbone's network (excluding, in particular, failures due to end-user behaviour and failure of terminal equipment).

7.2. In the event of disturbance of the conveyance of traffic within its System, Voxbone may be constrained to implement the classical measures of traffic regulation (call gapping, etc. ...) 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 regulation are applied to Voxbone and Operator traffic without discrimination. The target figures given above for network failure rate do not include failures that are caused by the mentioned measures of traffic regulation. The 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.

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## 8. Procedure for Reaching an Interconnection Agreement

Interconnection agreements shall be negotiated and reached according to the general modalities for interconnection as determined by the ILR (Article 23 of the Law).

Voxbone may demand the delivery of a bank guarantee on first demand of a Luxembourg based bank of 10.000,- € in favour of Voxbone for the provisioning of the interconnect service. When, and as long as there exist serious and ascertained doubts regarding a client's solvency, the Company may without prejudice to previous arrangements demand payment in advance.

Requests for interconnection services shall be made in writing to the following address:

Voxbone SA  
Avenue Louise 489  
1050 Bruxelles  
Belgium  
Tel : +32 2 808 00 00

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## **9. Annexes 1 to 4**

All prices mentioned here after are given exclusive of VAT or any other legal taxes, which will be added where applicable.



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**Annex 1: Tariffs applicable to the Terminating access service to geographic numbers, national interconnection.**

	Call Setup	Charge/Minute <sup>2</sup> (€ct)
Peak <sup>3</sup>	0	0.138
Off Peak	0	0.138

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<sup>2</sup> To be billed on a per nearest second basis

<sup>3</sup> Peak: worked days (jours ouvrables) between 8.00 and 19.00

Off-peak: time outside Peak

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**Annex 2: Calls to 800 numbers terminated in the Voxbone network**

This service consists in the conveyance by Voxbone of Calls handed over by an Operator at a Point of Interconnection between the Operator's System and Voxbone System for termination on Voxbone System, on one of Voxbone's Free phone numbers in accordance with the National Numbering Plan of Luxembourg.

The rates to be paid by Voxbone for Terminating Access Service to Voxbone's Free phone numbers are as specified below:

	range on access	Tariff
Voxbone freephone – originating : fixed	800	1.67 €cent/min
Voxbone freephone – originating : mobile	800	9.87 €cent/min

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### **Annex 3: Tariffs for Number Portability (NP)**

Standard tariffs applicable to Number Portability

- 1 Activation fee for number portability per number activation: 14,38.- €
- 2 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.- €ct

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#### **Annex 4: Tariffs applicable to the Interconnection link service**

The following fees are applicable to the IP Interconnection Link Services as previously described in this RIO.

One-off fee per Operator (installation and testing)	8.149,- €
Annual fee Annual fee per 2Mbit's link or per 30 channels (costs for equipment and maintenance)	1713 €

Monthly fees for the IP Interconnection system are based on bandwidth requirements enabling the simultaneous transmission of 30 voice calls (based on the G.711 or G.722 codecs).

The same monthly fee will apply for existing TDM interconnections purchased under the previous regulated offer until their retirement on 30/06/2022.