

# Narrowband & IP Exchange Reference Offer

## Introduction

BT is required to publish Reference Offers in relation to services provided within SMP designated markets. BT published such Offers on [btwholesale.com](http://btwholesale.com) in accordance with regulatory requirements.

This document provides links to the relevant pages and documentation on [btwholesale.com](http://btwholesale.com) where the published Reference Offers for both PSTN and IP are contained.

In the Fixed Narrowband market, following the 2017 Market Review by Ofcom, the requirement for a Reference Offer applies to:

### PSTN Interconnect

- Call Termination at the Local Exchange
- Call Origination at the Local Exchange
- Interconnect Circuits at the Local Exchange

The Standard Interconnect Agreement (SIA) provides the contractual framework for PSTN Interconnect Services. It should however be recognised that the SIA governs both regulated and unregulated services.

### IP Exchange

For IP Exchange, the reference offer applies to Call Termination only.

The VoIP Main Conditions provides the contractual framework for IP Exchange Services.

## PSTN Interconnect

### Condition 6 – Publication of a Reference Offer, Section 6.2

Para	Description	Links
6.2.a	a description of the network access to be provided, including technical characteristics (which shall include information on network configuration where necessary to make effective use of the access);	BT Network Description: <a href="https://www.btwholesale.com/pages/static/help-and-support/network-information.htm">https://www.btwholesale.com/pages/static/help-and-support/network-information.htm</a>
6.2.b	the locations at which network access will be provided;	Network Information Publication Principles (NIPP): <a href="https://www.btwholesale.com/pages/static/help-and-support/network-information.htm">https://www.btwholesale.com/pages/static/help-and-support/network-information.htm</a>
6.2.c	any relevant technical standards for network access (including any usage restrictions and other security issues);	Standard Interconnect Agreement (SIA) Telephony. I/C Spec 0100, I/C Spec 0120, I/C Spec 0200 & I/C Spec 0300: <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>
6.2.d	the conditions for access to ancillary, supplementary and advanced services (including operational support systems, information systems or databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing);	Interconnect Schedules (various): <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>
6.2.e	any ordering and provisioning procedures;	SIA Annex A (Planning and Operations): <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>  Interconnect Provisioning Manual: <a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a>
6.2.f	relevant charges, terms of payment and billing procedures;	SIA Main Section para 14: <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>  SIA Annex B (Billing and Payment): <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>  Carrier Price List: <a href="https://www.btwholesale.com/pages/static/help-and-support/pricing/carrier-price-lists.htm">https://www.btwholesale.com/pages/static/help-and-support/pricing/carrier-price-lists.htm</a>  Billing Manual: <a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a>
6.2.g	details of interoperability tests;	Testing Manuals: <a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a>
6.2.h	details of traffic and network management	SIA Annex A (Planning and Operations): <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>

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6.2.i.i	<p>details of maintenance and quality as follows:</p> <p>specific time scales for the acceptance or refusal of a request for supply and for completion, testing and hand-over or delivery of services and facilities, for provision of support services (such as fault handling and repair);</p>	<p>SIA Main Section para 6:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p> <p>SIA Annex A (Planning and Operations):  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p> <p>Operations &amp; Maintenance Manual:  <a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a></p>
6.2.i.ii	<p>details of maintenance and quality as follows:</p> <p>service level commitments, namely the quality standards that each party must meet when performing its contractual obligations;</p>	<p>SIA Main Section para 6:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p> <p>SIA Annex A (Planning and Operations):  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p> <p>Operations &amp; Maintenance Manual:  <a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a></p>
6.2.i.iii	<p>details of maintenance and quality as follows:</p> <p>the amount of compensation payable by one party to another for failure to perform contractual commitments</p>	<p>There are no SLGs for the Interconnect product set under the SIA</p>
6.2.i.iv	<p>details of maintenance and quality as follows:</p> <p>a definition and limitation of liability and indemnity;</p>	<p>SIA Main Section para 23:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p>
6.2.i.v	<p>details of maintenance and quality as follows:</p> <p>procedures in the event of alterations being proposed to the service offerings, for example, launch of new services, changes to existing services or change to prices;</p>	<p>SIA Main Section para 4:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p> <p>Charge Change Manual:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p> <p>Pricing Notifications:  <a href="https://www.btwholesale.com/pages/static/help-and-support/pricing.htm">https://www.btwholesale.com/pages/static/help-and-support/pricing.htm</a></p>
6.2.j	<p>details of measures to ensure compliance with requirements for network integrity;</p>	<p>SIA Main Section para 16:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p>
6.2.k	<p>details of any relevant intellectual property rights;</p>	<p>SIA Main Section para 24:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p>
6.2.l	<p>a dispute resolution procedure to be used between the parties</p>	<p>SIA Main Section para 26:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p>
6.2.m	<p>details of duration and renegotiation of agreements</p>	<p>SIA Main Section para 2:  <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a></p>

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6.2.n	provisions regarding confidentiality of the agreements;	SIA Main Section para 21: <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>  Confidentiality Agreement: <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>
6.2.o	rules of allocation between the parties when supply is limited (for example, for the purpose of co-location or location of masts)	Not relevant
6.2.p	the standard terms and conditions for the provision of network access;	SIA Main Section: <a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>

### PSTN Interconnect Useful links

Billing manuals <ul style="list-style-type: none"> <li>• Billing manual</li> <li>• New Services manual</li> <li>• Electronic DMA template</li> <li>• Contract Management manual</li> </ul>	<a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a>
BT Network Description <ul style="list-style-type: none"> <li>• BT Network Description</li> <li>• NIPP Annex A</li> <li>• NIPP Annex B</li> </ul>	<a href="https://www.btwholesale.com/pages/static/help-and-support/network-information.htm">https://www.btwholesale.com/pages/static/help-and-support/network-information.htm</a>
Carrier Price List	<a href="https://www.btwholesale.com/pages/static/help-and-support/pricing/carrier-price-lists.htm">https://www.btwholesale.com/pages/static/help-and-support/pricing/carrier-price-lists.htm</a>
Customer Service Plans (CSPS): <ul style="list-style-type: none"> <li>• Interconnect</li> <li>• Carrier Pre-Selection &amp; DEDES</li> </ul>	<a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a>
NIPP Data Files	<a href="https://www.btwholesale.com/pages/static/help-and-support/network-information.htm">https://www.btwholesale.com/pages/static/help-and-support/network-information.htm</a>
Operations & Maintenance Manuals <ul style="list-style-type: none"> <li>• O&amp;M Manual</li> <li>• Interconnect Link fault template</li> <li>• Interconnect Network fault template</li> </ul>	<a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a>
Pricing Notification	<a href="https://www.btwholesale.com/pages/static/help-and-support/pricing.htm">https://www.btwholesale.com/pages/static/help-and-support/pricing.htm</a>
Provisioning manual	<a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a>
Standard Interconnect Agreement	<a href="https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm">https://www.btwholesale.com/pages/static/help-and-support/regulatory.htm</a>
Testing Manuals <ul style="list-style-type: none"> <li>• Validation testing</li> <li>• Integration testing</li> <li>• Operational testing</li> </ul>	<a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a>

## IP Exchange

### Condition 6 – Publication of a Reference Offer, Section 6.2

Para	Description	Links
6.2.a	a description of the network access to be provided, including technical characteristics (which shall include information on network configuration where necessary to make effective use of the access);	IP Exchange Technical Description, Section 3: <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>
6.2.b	the locations at which network access will be provided;	IP Exchange Technical Description, Section 3.8 & Annexe A: <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>
6.2.c	any relevant technical standards for network access (including any usage restrictions and other security issues);	IP Exchange Technical Description, Section 2: <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>
6.2.d	the conditions for access to ancillary, supplementary and advanced services (including operational support systems, information systems or databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing);	Product Handbooks (various): <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>
6.2.e	any ordering and provisioning procedures;	Provisioning Handbooks: <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>
6.2.f	relevant charges, terms of payment and billing procedures;	Fixed Termination Rate charges the same as Carrier Price List Section B1.01, namely 0.0323p per minute: <a href="https://www.btwholesale.com/pages/static/help-and-support/pricing/carrier-price-lists.htm">https://www.btwholesale.com/pages/static/help-and-support/pricing/carrier-price-lists.htm</a>  Main Conditions, Sections 10, 11 & 12: <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a>  Product Handbook Section 8: <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>
6.2.g	details of interoperability tests;	Product Handbook, section 9: <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>
6.2.h	details of traffic and network management	IP Exchange Technical Description): <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>
6.2.i.i	details of maintenance and quality as follows:  specific time scales for the acceptance or refusal of a request for supply and for completion, testing and hand-over or delivery of services and facilities, for provision of support services (such as fault handling and repair);	Product Handbook, sections 9 & 11: <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a>

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6.2.i.ii	<p>details of maintenance and quality as follows:</p> <p>service level commitments, namely the quality standards that each party must meet when performing its contractual obligations;</p>	<p>VoIP Main Conditions:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>
6.2.i.iii	<p>details of maintenance and quality as follows:</p> <p>the amount of compensation payable by one party to another for failure to perform contractual commitments</p>	<p>There are no SLG' payments for the IP Exchange product.</p>
6.2.i.iv	<p>details of maintenance and quality as follows:</p> <p>a definition and limitation of liability and indemnity;</p>	<p>VoIP Main Conditions, sections 14:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>
6.2.i.v	<p>details of maintenance and quality as follows:</p> <p>procedures in the event of alterations being proposed to the service offerings, for example, launch of new services, changes to existing services or change to prices;</p>	<p>VoIP Main Conditions, section 4:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p> <p>BT IP Exchange Annex A National Rates:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>
6.2.j	<p>details of measures to ensure compliance with requirements for network integrity;</p>	<p>VoIP Main Conditions, section 18.3:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>
6.2.k	<p>details of any relevant intellectual property rights;</p>	<p>VoIP Main Conditions, section 7:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>
6.2.l	<p>a dispute resolution procedure to be used between the parties</p>	<p>VoIP Main Conditions, section 17:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>
6.2.m	<p>details of duration and renegotiation of agreements</p>	<p>VoIP Main Conditions, section 17:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>
6.2.n	<p>provisions regarding confidentiality of the agreements;</p>	<p>VoIP Main Conditions, section 8:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>
6.2.o	<p>rules of allocation between the parties when supply is limited (for example, for the purpose of co-location or location of masts)</p>	<p>Not relevant</p>
6.2.p	<p>the standard terms and conditions for the provision of network access;</p>	<p>VoIP Main Conditions:  <a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=3</a></p>

**IP Exchange Useful links**

<p>Pricing &amp; Contracts</p> <ul style="list-style-type: none"> <li>Carrier Price List Section B1.01</li> </ul>	<p><a href="https://www.btwholesale.com/pages/static/help-and-support/pricing/carrier-price-lists.htm">https://www.btwholesale.com/pages/static/help-and-support/pricing/carrier-price-lists.htm</a></p>
<p>Product Handbooks &amp; Technical</p> <ul style="list-style-type: none"> <li>IP Exchange Product Handbook</li> <li>IP Exchange Pre Pay Handbook</li> <li>IP Exchange Number Portability Handbook</li> <li>IP Exchange Sub Allocation Handbook</li> <li>IP Exchange Carrier Preselect Termination Handbook</li> <li>IP Exchange Technical Description</li> <li>IP Exchange SDIN Development Handbook</li> <li>IP Exchange Trouble Ticket Template</li> <li>IP Exchange Fault Reporting portal Comms</li> <li>IP Exchange Order Form</li> <li>IP Exchange Provisioning Test Calls Spreadsheet</li> </ul>	<p><a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=4</a></p>
<p>Credit Vetting Policy</p>	<p><a href="https://www.btwholesale.com/pages/static/help-and-support/contracts.htm">https://www.btwholesale.com/pages/static/help-and-support/contracts.htm</a></p>
<p>Customer Service Plans (CSPS):</p> <ul style="list-style-type: none"> <li>IP Exchange</li> </ul>	<p><a href="https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm">https://www.btwholesale.com/pages/static/help-and-support/product-documentation.htm</a></p>
<p>Support &amp; Tools</p> <ul style="list-style-type: none"> <li>Accessing the Wholesale Voice Portal Via btwholesale.com</li> <li>Raise a Trouble Ticket</li> <li>Amend a Trouble Ticket</li> <li>Accept or Reject a Clear</li> <li>Cancel a Trouble Ticket</li> <li>Track a Trouble Ticket</li> </ul>	<p><a href="https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=5">https://www.btwholesale.com/pages/static/products-services/ip-exchange.htm#accProducts=5</a></p>